Workplace Health & Wellness Strategy

Project Summary Report

For

New Brunswick Association of Nursing Homes

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Presented by:

New Brunswick Association of Nursing Homes (NBANH) & its Employee Benefits Committee,

in partnership with The Shepell•fgi Health Consulting & Research Group

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Executive Summary

New Brunswick Association of Nursing Homes (NBANH), in conjunction with its Employee Benefits Committee, embarked on an initiative to bring a wellness program to its sector. The goal of this initiative was to create a Workplace Health & Wellness Strategy to support and measure the health and wellness of the member homes and their employees.

To achieve this goal, a comprehensive needs assessment was first conducted, beginning spring 2010 to obtain baseline measures and collect data to inform the direction of the strategy, including:

- ✓ **An Environmental Scan**
  - To understand the context of the long-term care sector and the employee demographic—predictive indicators of health
- ✓ **An Employee Health and Wellness Survey**
  - To collect baseline health measures
  - To identify leading employee well-being issues
  - To identify leading organizational health issues
  - To collect data to inform actions to improve both health and organizational outcomes
- ✓ **An Integrated Health Data Analysis**
  - To confirm priority health issues
- ✓ **An Occupational Health Best Practices Review**
  - To obtain measures for current OHS policies, procedures and practices
  - To determine gaps and opportunities for improvement against known best practices

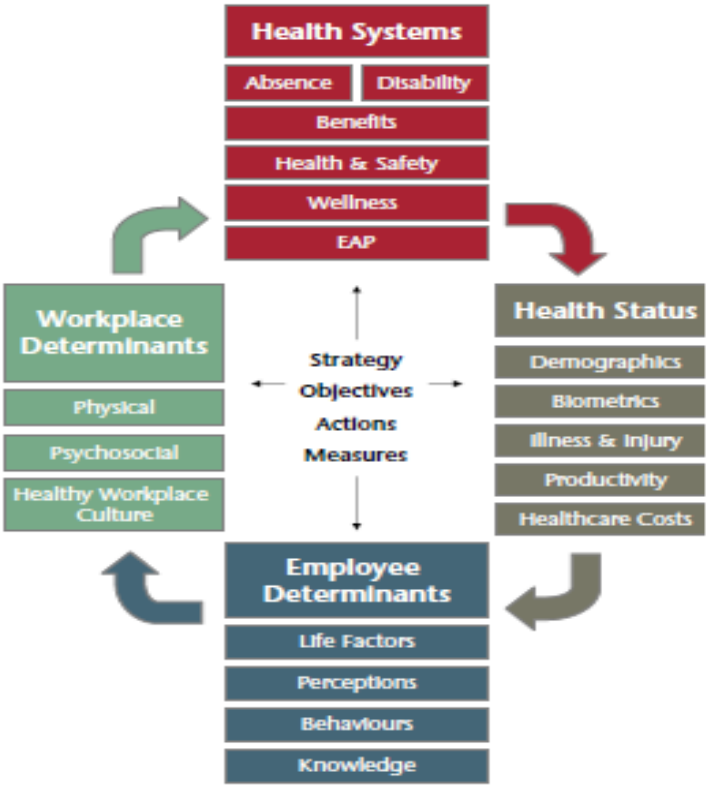
This needs assessment guided the development of **Workplace Health & Wellness Strategy**, developed by a Wellness Steering Committee, including:

- ✓ **A Health Framework**
  - Health priorities, health determinants, health tactics
- ✓ **A Strategic Framework**
  - Vision, mission, values and goals
- ✓ **A Strategic Direction**
  - Approach — model, structure, focus
  - 4 key strategies, with recommended objectives to move toward best practice and achieve the Workplace Health mission:
    1. Optimizing Employee Health
    2. Advancing Health Management Systems
    3. Enhancing Work Quality
    4. Performance Excellence

The next step for NBANH is to develop a work plan to execute on the recommendations, to ultimately deliver on the Workplace Health & Wellness Strategy.

Key Findings

Being able to strategically and effectively support health and wellness requires a solid understanding of the wide variety of factors that have an impact on physical, mental, social, occupational, and organizational health. Accordingly, through the comprehensive need assessment that was conducted, NBANH was able to collect data across the 4 main drivers of health and wellness: health status, health systems, employee determinants of health, and workplace determinants of health.



These data describe the health and wellbeing status of employees and also provides knowledge of the workplace level health factors affecting employee health status. Further, they provide insight into the associations between work and health, and identify priority areas for action. This information is then used to guide the development of a strategy to support health and wellness, including objectives, tactics and success measures. This strategy then dictates the supporting intervention to be delivered to ultimately improve employee health status and organizational performance.

In the future, these data should also be used to populate a Healthy Workplace Scorecard, which acts as a monitoring system to measure and evaluation change, as well as drive quality improvement.

Health Status

Health status indicators are a predictive measure that helps to describe the current state of health in NBANH's employee population. The following are the key indicators from the needs assessment:

Demographics

- The workforce at NBANH is **female-dominated** (88% female vs. 12% male)
- The **average age is 47** years (46.9 for females and 47.8 for males)
- There is a much **higher proportion of 'older' workers** (45+ years) (65%) than younger employees (15-44 years) (35%)

Biometrics & Health Conditions

- **14.0% are at high risk** (5+ risk factors)
- **32.2% are at medium risk** (3-4 risk factors)
- **53.8% are at low risk** (0-2 risk factors)

Health Risks	% at-risk [1]
Diet	68.2%
Stress	66.2%
Weight	64.3%
Physical Activity	44.3%
Sleep	39.2%
Blood Pressure	32.5%
Back Problems	28.5%
Arthritis	26.8%
Smoking	26.2%
Cholesterol	24.8%
Mental Health	24.3%
Migraines	23.2%
Blood sugar/diabetes	23.1%
Asthma	22%
Alcohol	19.9%

[1] Percent with self-reported risk or diagnosed, based on 2010 Employee Health & Wellness survey data. "At-risk" means moderate or high risk, based on categorized self-reported data, or a health condition has been diagnosed.

- **42.4%** rate their general health as 'very good' or 'excellent', whereas almost **10.6%** rate it as 'fair' or 'poor'
- **14.5%** report that their general health is 'somewhat' or 'much' worse than one year ago
- **52.6%** rate their general mental health as 'very good' or 'excellent', whereas **8.8%** rate it as 'fair' or 'poor'
- Almost **10%** report that their general mental health is 'somewhat' or 'much' worse than one year ago
- **14.1%** indicate that theirs general health is worse than it was 1 year ago

Productivity

- **40.1%** of employees indicated in the survey that they **accomplished less at work** in the past 4 weeks due to **emotional problems**
- **48.9%** of employees indicated in the survey that they **accomplished less at work** in the past 4 weeks due t**o physical problems**

Health Care Costs

- **Cardiovascular diseases** make up 17.04% of utilization and 16.9% of costs of prescription drugs
    - Hypertension is most significant disease
- **Endocrine and related disorders** represent 14.36% of utilization and 16.31% of costs of prescription drugs
    - Metabolic disorders and diabetes are the most significant diseases
- **Mental disorders** represent 17.23% of utilization (highest utilization) and13.57% of costs of prescription drugs
    - Neurotic, personal and non-psychotic disorders (e.g.: personality disorders, anxiety disorders, dependence, etc) are the most significant diseases
- **Digestive diseases** represent 7.95% utilization and 12.55% of costs of prescription drugs
    - Diseases of the digestive system (oesophagus, stomach and duodenum – e.g.: gastritis, gastric ulcers, etc) are the most significant diseases
- **Musculoskeletal disorders** represent 8.07% utilization, 10.64% of costs of prescription drugs —20% higher than the benchmark
    - Athropathies (disorders of the joints/connective tissue and arthritis) and dorsopathies (disorders of the back) are the most significant disorders
- Altogether these top disease categories represent 65% of prescription drug utilization and 57% of costs
- Additional health benefit costs (e.g.: short-term illness, long term disability) were not available but should be analyzed when they are

Employee Determinants of Health

Employee Perceptions

- **25.6%** agree / strongly agree that their physical health is negatively affected by work
- **23.9%** agree / strongly agree that their mental health is negatively affected by work
- **24.5%** agree / strongly agree that their health and safety is at risk because of work

Employee Interests

- The top 5 top topics of interest are:
    - Stress management
    - Weight management
    - Physical activity
    - Healthy eating
    - Backache/Ergonomics

- Employees also reported that they are most likely to participate in:
    - Health related competitions, challenges
    - Fitness classes
    - Confidential health screening by a nurse
    - Weight management program

Health Behaviours

- **22.4%** have not had an annual physical/check up in the past year
- **51.2%** have never spoken with their health care professional about their recommended cancer screening tests
- **44.10%** have not had their cholesterol checked (**32.7%** not in the past year, and **11.4%** have never)
- **39.1%** have not had their blood sugar checked (**30.1%** not in the past year, and **9%** have never)
- **14.9%** have not had their blood pressure checked (**14%** not in the past year, **0.9%** have never)

Workplace Determinants of Health

Physical and Psychosocial Workplace

- **75.4%** of employees reported experiencing work-related **fatigue**
- **72.2%** of employees reported experiencing work-related **muscle pain**
- **67%** of employees reported experiencing work-related **backache**
- **62.8%** of employees reported experiencing work-related **stress / anxiety**
- **54.7%** of employees reported experiencing work-related **headaches**

Healthy Workplace Culture

- Meaningful Work was rated **4.48** out of 5 by employees
    - The vast majority of respondents are satisfied with the meaning inherent in their work
- Organizational Health and Safety Commitment was rated **3.68** out of 5 by employees
    - The key issues related to Organizational Health and Safety Commitment are 'physical workspace' and 'management's interest in the wellbeing of employees'
- Work-Life Balance was rated **3.46** out of 5 by employees
    - The key issue related to work/life balance is about the 'flexibility of work schedules'
- Satisfaction with Supervisor was rated **3.44** out of 5 by employees
    - The key issues related to Supervisor Satisfaction are 'providing feedback' and 'solving conflicts'
- Organizational Satisfaction was rated **3.43** out of 5 by employees
    - The key issues related to Organizational Satisfaction are 'being kept informed' and 'being treated fairly'
- Job Quality was rated **3.16** out of 5 by employees
    - The key issue related to Job Quality is 'workload'
- A Stress Satisfaction Offset Score of **0.23** was garnered through the Employee Health & Wellness Survey, indicating that some support to improve organizational health is required[2]

Health Management Systems

Absence

- The average annual self-reported absence rate for NBANH is **21.16 days**[3]
- Total estimated cost related to absence **is $17,331,433;** this does not include replacement or health benefit costs
    - Costs related to absence for low risk = $3,536 /employee (x 2478.8 employees at this risk level = $8,765,036)
    - Costs related to absence for medium risk = $3,834/employee (x 1481.2 employees at this risk level = $5,679,217)
    - Costs related to absence for high risk = $4,483.20/employee (x 644 employees at this risk level = $2,887,180)

[2] A score of **+0.5 to +2.0** is considered optimal in terms of workplace health. A score of **0 to +0.5** is indicative of a work unit that requires some support to improve organizational health. A score of **below 0** is indicative of a work environment that requires immediate attention because in all likelihood the organization is experiencing high stress, low job satisfaction that is working against the achievement of business objectives.

[3] Absenteeism was reported for the last 4 works and annualized to reflect a 12-month absenteeism rate. a day rate of $175.40, and an annual salary of $45,594.70 were used as proxy measures.

Productivity

- **40.1%** of employee survey respondents indicated they **accomplished less at work** in the past 4 weeks due to **emotional problems**
- **48.9%** of employee survey respondents indicated they **accomplished less at work** in the past 4 weeks due t**o physical problems**
- Total estimated cost of health-related lost productivity is **$71,136,735;** this does not include health benefit costs
    - Health-related lost productivity cost for low risk are $11,827/employee (x 2478.8 employees at this risk level = 29,316,767)
    - Health-related lost productivity cost for medium risk = $16,914.80/employee (x 1481.2 employees at this risk level = 25,054,201)
    - Health-related lost productivity cost for high risk = $26,033.80/ employee (x 644 employees at this risk level = $16,765,767)

Occupational Health & Safety

A review of Occupational Health & Safety Best practices reviewed the following overall scores[4] and gaps:

OHS Leadership Commitment and Participation	
OHS Policy	
OHS Plan	
OHS Procedures and Practices	
OHS Competency, Education and Training	
OHS Documentation and Data Management	
OHS Monitoring and Evaluation	

- The OHS policy does not clearly outline a clear commitment to continual improvement
- The OHS policy does not clearly outline a framework for setting and reviewing objectives and indicators
- The OHS policy is not annually reviewed and updated
- An adequate plan is not created each year to facilitate the achievement of OHS goals and objectives
- The consistency of practices associated with the procedures is not ensured or measured
- The effectiveness of any corrective action taken is not evaluated
- Competence requirements for all of our jobs are not established or regularly reviewed

[4] Colours were assigned to each of the 7 best practices 'areas', based on the following: green = on track or significant process toward being on track; yellow = opportunity area or very early progress that still requires development, red = significant gap.

- There is not a system in place to ensure that workers are competent to carry out all aspects of their duties
- Employees are not updated or regularly trained on OHS policy, procedures and activities
- There is a not an adequate system in place for the development, tracking and control of all of the documents and records
- Confidentiality of OHS records is maintained, however, how data is stored does not easily allow to access to pertinent data without pulling case files
- OHS data is not entered in a database, nor is it used to create integrated (aggregate) reporting
- There are not adequate procedures in place or consistently implemented for the monitoring and measurement of the OHS program
- There are not adequate resources in place (financial, human) for the implementation of the OHS program evaluation
- There is not internal OHS audit process in place at any of the participating homes
- There is no internal OHS audits criteria for auditor competency
- Internal OHS audits are conducted, nor are there presently plans to do so
- Since audits are not happening, the results of internal OHS audits cannot be reported to our leadership and other stakeholders

Strategic Framework

Using the data from the needs assessment, the following strategic framework was designed to guide how NBANH will collaborate with its member homes and their employees, in addition to the unions to effectively support health and wellness. The strategic framework reflects the health priorities to be addressed over a 3-year period of time.

Vision

The New Brunswick Association of Nursing Homes, the Canadian Union of Public Employees, the New Brunswick Union, the New Brunswick Nurses Union, the Nursing Home Governance Members, together with the leaders and employees of its member homes, share a commitment to building and sustaining optimal workplace wellness in the long-term care sector.

Mission

Our mission is to collaborate with member homes to provide effective strategies and programs to build and sustain a positive and healthy work workplace and support employee well-being.

We will do this by:

- Regularly assessing the health and well-being needs and interests of our member homes and their employees, and providing innovative services and programs to meet those needs.
- Having effective systems in place to proactively identify the health needs of member homes and their employees, and by providing early intervention support.
- Providing access to a range of comprehensive, high quality programs and services that support the full spectrum of health, including physical, social and mental health.

- Regularly measuring the efficacy of our programs and services, to ensure we are focused on quality improvement and deliver value to our member homes and their employees.
- Ensuring and on-going, open dialogue around supporting and managing health issues, including providing opportunities for knowledge exchange, as well as expert consultation around the use of evidence-based best practices.

Values

- We believe that health is a positive concept encompassing physical, social, mental and occupational factors.
- We believe that a healthy and positive work culture is characterized by trust, respect, fairness and open communication, and must be achieved collaboratively through teamwork and the shared commitment of leaders and employees.
- We believe employees are integral to the success of our health strategy and value their role in planning, implementing and evaluating our health programs and services.
- We believe our strategy to support health should driven by employee and organizational needs and interests, and should be effective in identifying and supporting the root causes of health issues.
- We believe in measuring the efficacy of our health programs and services, and ensuring we are focused on quality improvement.

Employee Health Goals

In the strategic planning session, there was consensus around focusing on the following 5 employee health goals:

1. Improving employee physical and mental health
2. Reducing workplace injuries
3. Systematically creating and sustaining a healthy and positive work culture
4. Increasing employee health awareness
5. Creating a supportive work environment

Strategic Direction

Over a 3-year plan, the following 4 strategies should be the focus for NBANH to support its member homes and their employees:

- ✓ Optimizing Employee Health
- ✓ Advancing Health Management Systems
- ✓ Enhancing Work Quality
- ✓ Performance Excellence

Optimizing Employee Health

Our Goal:

- Provide access to a range of comprehensive, high quality health programs and services to support physical, mental health and occupational health.

We will:

- Ensure a broad range of strategies are used to support health.
- Ensure effective health programs are in place to provide support to member homes and employees at all stages of need, including at work, off work and in the return to work.
- Facilitate a process to regularly assess member homes' and employees' needs, and ensure health offerings meet those established needs.
- Ensure health is supported in a holistic way, with consideration to how the broader determinants of health impact social, mental and occupational health.
- Increase employee health awareness of physical and mental health risk factors and the preventability of chronic conditions.
- Reduce the incidence of modifiable risk factors among employees.

Advancing Health Management Systems

Our Goal:

- To support member homes and their employees through effective early intervention for health issues.

We will:

- Put in place infrastructure, policies, procedures and practice standards to proactively address health issues and mitigate risks.
- Use data to identify and objectively understand root causes of health issues.
- Promote access to the right care at the right time.
- Realize the need for managers and supervisors to have timely and relevant information to effectively manage health and safety.
- Ensure coordination between health providers.
- Ensure that member homes, employees and residents benefit from operational efficiencies of a systematic approach to health and safety management and prevention.

Enhancing Work Quality

Our Goal:

- To progressively build a culture of wellness, to the mutual benefit of our employees and residents.

We will:

- Support initiatives to enable a culture of wellness.
- Regularly assess and measure the work culture.
- Put tactics in to ensure the work environment is physically and psychosocially safe.
- Ensure employees have a key role in planning, implementing and evaluating our health programs and services.
- Have a formal communications strategy to ensure there is open, transparent communication around the Workplace Health Strategy.

Performance Excellence

Our Goal:

- To ensure a best practice approach to supporting the health of our member homes and their employees.

We will:

- Create a strategic direction and set annual targets to support and maintain health.
- Demonstrate a measurable return on investment to support health.
- Ensure evidence-based practices are being consistently applied.
- Ensure health programs and benefits are sustainable.
- Provide a venue for knowledge exchange around applying leading practices.
- Providing support and consultation for a coordinated and consistent approach to supporting health.
- Ensure innovative strategies and technologies are in place to manage and support health.
- Lead monitoring and evaluation initiatives.
- Leverage partnerships for resources and expertise.
- Seek opportunities to improve operational performance.

Key Recommendations

To execute on the **Strategic Direction** the following objectives have been recommended:

Optimizing Employee Health

- Develop and execute a health awareness strategy
- Develop and execute a health education plan
- Implement chronic disease management program
- Implement a walking program, led by employee volunteers
- Deliver a seasonal flu vaccination program
- Implement a risk identification program
- Deliver specialized mental health care services
- Deliver health competitions and challenges more widely as a key way to engage employees
- Implement a walking program led by employee volunteers
- Reassess health risk data from Employee Health and Wellness Survey

Advancing Health Management Systems

- Conduct a review of best practices for attendance and absence
- Put in place policies to support attendance, absence and disability
- Implement an absence recording process together with manager training – pilot study
- Put in place confidential case support and 3rd party assessment for occupational + non-occupational absence
- Create a formal, documented short-term claims management process
- Create a formal, documented Return to Work (RTW) process
- Implement Association-wide absence recording
- Provide manager/supervisor training on absence and disability support
- Develop and execute absence data review process
- Re-execute Integrated Health Data Analysis

Enhancing Work Quality

- Execute a WSNB claims management review
- Develop a Communications strategy to support the Workplace Health Strategy
- Create a new mandate around Back In Form
- Execute a strategy to act on recommendations from the Occupational Health and Safety Best Practices review
- Develop and launch a manager/supervisor mental health training program
- Conduct a review of worksite healthy food options
- Develop and launch an initiative to orient employees to the Workplace Health Strategy

- Establish a high-functioning Wellness Committees in each home
- Re-execute the Employee Health and Wellness Survey
- Re-execute the Occupational Health and Safety Best Practices review

Performance Excellence

- Hire Workplace Health & Wellness Coordinator
- Identify success measures for Workplace Health Strategy
- Set up a 'Health Partnership' model -- define criteria, engage members
- Create knowledge exchange networks
- Execute an annual strategic plan to deliver on the Workplace Health Strategy
- Execute a comprehensive evaluation closure of the plan each year
- Develop a monitoring and measurement process/initiative
- Set service standards and performance targets for health providers
- Create a dashboard or repository to collect and integrate health metrics

Financial Considerations

There were three main components of cost that were included on the survey that can be considered to determine the ROI of the NBANH Wellness Program over time: self-reported health risk assessment, self-reported sickness absence, and self-reported health impact on productivity.

Using calculated risk levels, and self reported absence and productivity impact values, the findings clearly demonstrate that absenteeism increases and productivity decreases as the number of health risks rise. Using average NBANH salary rates, we can demonstrate that increasing health risks costs NBANH more every year in terms of absence and productivity.

Low Risk (0-2 risk factors)	Abs = 20.16 days Productivity Loss due to Physical Health = 14% Productivity Loss due to Mental Health = 12%	20.16 x $175.4 = $3536 45,594.7 x 0.14 = $6383.30 45,594.7 x 12% = $5471.40
Medium Risk (3-4 risk factors)	Abs = 21.86 days Productivity Loss due to Physical Health = 19.8% Productivity Loss due to Mental Health = 17.3%	21.86 x $175.4 = $3834.20 45,594.7x 0.198 = $9027.80 45,594.7 x 17.3% = $7887.90
High Risk (5+ risk factors)	Abs = 25.56 days Productivity Loss due to Physical Health = 28.8% Productivity Loss due to Mental Health =28.3%	25.56 x $175.4 = $4483.20 45,594.7 x 0.288 = $13,131.30 45,594.7 x 28.3%= $12,903.30
Calculations: Cost of Low Risk employees = **$15,390.70** Cost of Medium Risk employees = **$20,749.90** Cost of High Risk employees = **$30,517.80**		

Financial Savings Projections

The aforementioned risk, absence and productivity data is based on the respondent profile. By way of extrapolating this data to NBANH's full population of 4600 employees, the following measures are established:

- 644 high risk employees are costing NBANH **$19,652,948**
- 1481.2 medium risk employees are costing NBANH **$30,733,418**
- 2474.8 low risk employees are costing NBANH **$38,087,172**

Therefore, it is estimated that the cost of health risk for the full population, not including health benefit expenditures, in terms of absence and productivity is **$88,473,538** per year.

Conservatively, if NBANH could invest in health promotion that resulted in:

- 10% of high risk employees moving into medium risk (65 people), the result would be a savings of **$634,920** (65 x $9,768), and
- 10% of medium risk into low risk (148 people), the result would be a savings **$793,132** (148 x $5,359).

This shift would result in a total estimated savings of: **$1,428,052 per year**

Reports

The following pages include the reports making up the comprehensive needs assessment that was conducted, in addition to the strategy, informed by the needs assessment data, to support health and wellness over the coming 3 years:

- **Health Data Analysis**
  - To confirm priority health issues

- **Employee Health & Wellness Survey**
  - To collect baseline health measures
  - To identify leading employee well-being issues
  - To identify leading organizational health issues
  - To collect data to inform actions to improve both health and organizational outcomes

- **Occupational Health & Safety Best Practices Review**
  - To understand the context of the long-term care sector and the employee demographic—predictive indicators of health
  - To obtain measures for current OHS policies, procedures and practices
  - To determine gaps and opportunities for improvement against known best practices

- **Workplace Health & Wellness Strategy**
  - To provide a strategy to guide action:
    - A Health Framework -- Health priorities, health determinants, health tactics
    - A Strategic Framework -- Vision, mission, values and goals
    - A Strategic Direction -- Approach and strategic direction
      1. Optimizing Employee Health
      2. Advancing Health Management Systems
      3. Enhancing Work Quality
      4. Performance Excellence

Health Data Analysis

30 August 2010

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Introduction

Having a healthy workplace is key factor in helping employees maintain their health, but mounting research shows that workplace health promotion also has an impact on key organizational outcomes. How healthy people feel affects their job satisfaction and their productivity, and how satisfied people are with their job affects their own health—there is a reciprocal relationship between health and performance.

A growing body of scientific literature suggests that well-designed, evidence-based health and productivity management programs pays back in the form of:

- Improved worker productivity
- Improved worker health
- Lower their risk for disease
- Fewer accidents and workers compensation claims
- Reduced incidental absenteeism
- Reduced health-related losses and disability
- Reduced staff turnover and the retention of valued staff , which means reduced recruitment and training costs
- Improved staff attitudes towards the organization, higher staff morale and better work relations
- A more receptive climate for – and ability to cope with – workplace changes
- Enhanced business reputation and customer loyalty
- Improve the financial performance of organizations instituting these programs.

In general, scientific literature also suggests that data driven, evidence-based healthy workplace strategy should possess the following **key factors**[1]:

1. **Leadership Commitment**
   - Leading by example – with buy-in by middle managers
   - "Healthy company" culture
   - Explicit connection to the core principles of the organization
   - Employee-driven advisory board
   - Specific program goals and objectives with realistic expectations
   - Alignment of organizational, HR and health promotion policies/practices
   - Sustainability – future orientation

2. **Effective Screening and Triage**
   - Casting a wide net to identify the highest risk individuals
   - Providing health interventions to keep individuals at low risk
   - Triaging individuals into programs that produce greatest impact/payoff
   - Protecting confidentiality
   - Coordinating with providers and community resources

3. **Data-Driven, Population-Based Intervention Programs**
   - Programmatic decisions based on baseline data
   - Based on specific health issues relevant to the populations needs, including the most frequent and costly health problems
   - Theory and evidence-based
   - Target the most important health care issues among the employee population
   - Tailored individual needs and learning styles as well also population needs
   - Balance high touch with high tech
   - Operate at multiple levels, simultaneously addressing individual, environmental, cultural and policy factors
   - Aligned with organizational policy to reinforce desired behaviours
   - Branded and be a part of organizational culture

[1] Promising practices in employer health and productivity management efforts: Findings from a benchmarking study. Goetzel RZ, Shechter D, Ozminkowski RJ, Reyes M, Marmet PF, Tabrizi M, Chung Roemer E. Journal of Occupational and Environmental Medicine. (2007) February; 49:2, 111-130.

4. **Meaningful Incentives**
   - Must achieve a high level of participation over the short and long term
   - Incentives to participate, as opposed to incentive to change biometrics
   - Should directly affect employee's health care costs, as opposed to being 'stand alone'
   - Accountability at all levels – linked to rewards
   - Using effective marketing and communications (multi-channel)

5. **Effective Implementation**
   - Integrate programs – ensure vendor (stakeholder)engagement
   - Accessible and attractive programs
   - Start simple and grow on success
   - Multi-component -- variety of topics and engagement modalities
   - Integrate 'implementers' into the fabric of the organization
   - Spend the right amount of money to achieve a desired ROI

6. **Excellent and On-going Evaluation**
   - Integrated data systems
   - Evaluation of performance in relation to program outcomes, business objectives **and** social responsibility objectives
   - Rigorous methods that stand up to peer review
   - Based on going measurement and evaluation
   - Regular communication of results

Purpose of the Report

Shepell·fgi has partnered with NBANH to conduct a Health Data Analysis as part of a broader initiative to support health and wellness assessment and planning, based on objective indicators of health among its employees. This analysis was conducted to confirm existing priority health areas and develop a business case for wellness programming to support specific health issues.

This report will assist your organization to use data to make to:

- Indentify existing health issues, on the aggregate level (for the Association) and in each region.
- Identify top disease categories, and understand how these categories are driving prescription drug utilization and costs.
- Provide a data basis to address priority areas for action.

The benefit of this report is a clear rationale for targeted investments in health, and support for planned and strategic steps toward optimum health and productivity.

Data Sources

The following table is a summary of the data source per each data category:

Data Category	Data Source
Demographic	• Demographical data by region was achieved by mapping the code for each nursing home into its respective region (i.e.: regions 1 through 7) • Age and gender data was complied using benefits enrolment data through Assomption Life
EFAP	• Utilization data was provided by Ceridian, for the period of 1 February 2010 – 31 May 2010 • Data from employees and dependants was used • 5600 participants were covered by the program • Data by region was not provided
Prescription Drug	• Claims data were provided by Assomption Life, for the period of 1 March 2009 to 28 February 2010 • Employee (only) data was used for analysis • 4600 employees were covered by the Insurer • Regional claims data was complied by mapping the code for each nursing home into its respective region (i.e.: regions 1 through 7) • A benchmark is also provided, using the national annual data found in the Health Evidence database from the former year

Methodology

The following key steps were taken to create this report:

1. NBANH's health data was collected from its providers for the most recent period[2].
2. For the purpose of this analysis, only claims with a valid Drug Identification Number (DIN) were analyzed. Invalid DINs include those which are inactive (i.e.: no longer in the Health Canada Drug Product Database) or not associated with a disease state (e.g. contraceptives, vaccines, and the like)[3].
3. A reference table (or proxy) was used to map claims DINs into disease categories using the International Disease Classification 9 (ICD9)[4].
4. Regional claims data was complied by mapping the nursing home code associated with each claim its respective region (i.e.: regions 1 through 7)
5. Using benefits enrolment data through Assomption Life, population data, specifically age and gender, were tabulated and analyzed.
6. EFAP data were summarized and reviewed for trends and issue identification.

Report Format

The findings of this report are presented by health indicator types:

Health Status indicators – A predictive measure that helps to describe the current state of health in NBANH's employee population.

- Demographic data

Health Risk Indicators – A leading measure of health that indicates emerging trends and possible future costs.

- EFAP

Health Management Systems Indicators – A lagging measure of health that shows conditions for which people have sought support through the workplace benefits.

- Prescription Drugs

In each section, these data are presented on the aggregate level, for NBANH overall, and then by region where possible.

It is noted, that additional health indicators could be analysed in the future to provide a more comprehensive picture of the burden of illness. When available, causal absence data should be reviewed as an additional Health Risk Indicator, and in addition, long-term disability (LTD) and short-term disability (STD) should be analysed as Health Management Systems Indicators.

[2] See data sources table for specific periods
[3] For the company wide data, 77.2% of DINs from 86.5% of total scripts resulting in 93.3% of claims cost were used for disease profiling.
[4] See Appendix D for ICD drug glossary.

Regions

At the request of NBANH, data was reviewed by the following regions:

Region 1 (N=1039)

Division	Facility Name
001	Manoir St-Jean Baptiste
002	Kenneth E. Spencer Memorial
003	The Salvation Army Lakeview Manor
004	Villa du Repos Inc.
005	Drew Nursing Home
006	La Villa Maria Inc.
007	Villa Providence Shediac Inc.
008	Rexton Lions Nursing Home Inc.
009	Forest Dale Home Inc.
050	Foyer Saint Antoine
051	Foyer St-Thomas, Vallée de Memramcook Inc
052	Westford Nursing Home
061	Jordan Life Care Centre

Region 2 (N= 1029)

Division	Facility Name
011	Grand Manan Nursing Home
012	Pasamaquoddy Lodge Inc.
013	Campobello Lodge Inc.
014	Church Of St. John & St. Stephen Home Inc.
015	Loch Lomond Villa Inc.
016	Rocmaura Inc.
017	Turnbull Nursing Home Inc.
018	Lincourt Manor Inc.
019	Kiwanis Nursing Home Inc.
047	Kennebec Manor Inc.
048	Carleton Kirk Lodge
049	Dr. V.A. Snow Centre
062	Fundy Nursing Home
071	Kings Way Care Centre

Region 3 Divisions (N=731)

Division	Facility Name
020	Central NB Nursing Home Inc.
021	York Manor Inc.
022	Victoria Glen Manor Inc.
023	Carleton Manor Inc.
024	River View Manor Inc.
025	Woolastock Long Term Care Facility Inc.
042	Mill Cove Nursing Home Inc.
043	Pine Grove Nursing Home Inc.
045	Tobique Valley Manor Inc.
046	Central Carleton Nursing Home Inc.
056	White Rapids Manor
057	W.G. Bishop Nursing Home
059	Wauklehegan Manor
060	Nashwaak Villa

Region 4 Divisions (N=423)

Division	Facility Name
026	Foyer Ste-Elizabeth Inc.
027	Foyer St-Joseph de St. Basile Inc.
028	Foyer Notre Dame de St. Leonard Inc.
029	Manoir de Grand-Sault Inc.
030	Residences Mgr. Melanson Inc.
031	Villa Desjardins Inc.

Region 5 (N= 223)

Division	Facility Name
032	Campbellton Nursing Home Inc.
033	Dalhousie Nursing Home Inc.

Region 6 (N=555)

Division	Facility Name
034	Foyer Notre-Dame-de-Lourdes Inc.
035	Villa Beausejour
038	Residences Mgr. Chiasson Inc.
039	Villa St-Joseph Inc.
040	Residences Lucien Saindon Inc.
041	Villa Sormany Inc.
054	Manoir Edith B. Pinet Inc.
055	Les Résidences Inkerman Inc.
058	Villa Chaleur

Region 7 (N=316)

Division	Facility Name
010	Foyer Assomption Inc.
036	Miramichi Senior Citizens Home Inc.
037	Mount St-Joseph Inc.
053	Tabusintac Nursing Home Inc.

Health Status Indicators

Health Status indicators are important measures that help to describe the current state of health of NBANH's employee population. This section includes predictive indicators, including as age and gender. In the future, when disability and absence data are also available, these data can be mapped into disease categories to develop a comprehensive disease profile (e.g.: morbidity indicators of the population).

Demographic Profile

Demographic data is a predictive indicator of health, and enables a general understanding of some of health and productivity needs of your organization based on gender, age and life-stage profile, allowing for more targeted interventions. The most predictive demographic factors on health status include age and gender.

Observations:

- The workforce at NBANH is female-dominated (88% female vs. 12% male), which is characteristic of the health care sector (79% female).
- There is a much higher proportion of 'older' workers (45+ years) (65%) than younger employees (15-44 years) (35%), which is typical in the healthcare sector; whereas, in the Canadian labour force, this proportion is the inverse (39% are 45 years and older vs. 61% under 45 years).
- The average age is 47 years (46.9 for females and 47.8 for males), which is notably higher than the Canadian labour force (41.2) and the healthcare sector (42.7).
- The demographic breakdown in each region closely mirrors that of NBANH overall; however, it is noted that regions 2, 4 and 6 have a somewhat higher proportion of younger employees (>45 years), whereas in region 7, there is a somewhat higher proportion of older (45 + years) employees.
- The trend of the Association being female-dominated holds true across all regions, though there is a notably greater proportion of males in regions 5 and 6, compared to proportion of males in other regions.
- Age is a predictive indicator of health and with a higher proportion of older workers, NBANH can expect a greater need to support age-related chronic health conditions.

NBANH Overall

Demographic Profile by Region

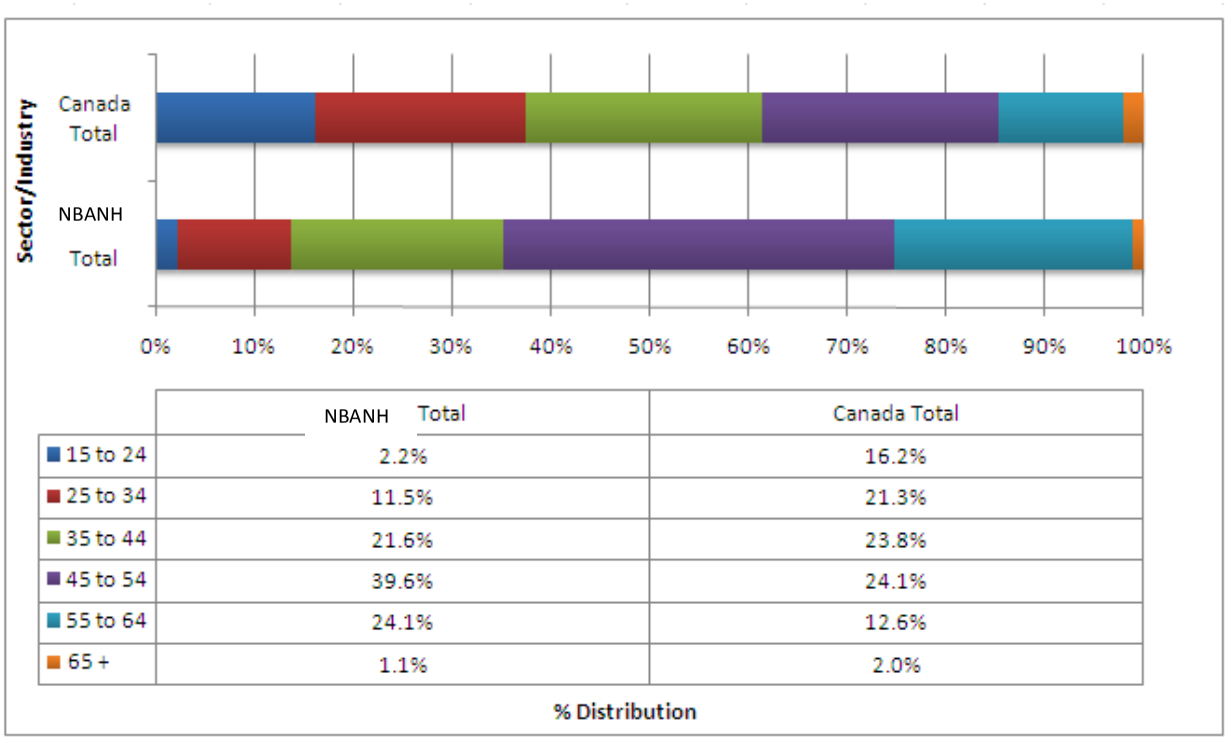
Regions	Population	% population
Region 1	1039	23.30%
Region 2	1029	23.07%
Region 3	731	16.39%
Region 4	423	9.48%
Region 5	223	5.00%
Region 6	555	12.44%
Region 7	316	7.09%
Not in a Region (Div 044[5], 070[6])	144	3.23%
Total	4460	100.00%

Gender breakdown for NBANH

	Female	Male	Overall
Number of employees	3931	529	4460
% split	88.1%	11.9%	100.0%
Average Age	46.9	47.8	47.0

[5] NB Association Of Nursing Homes
[6] NB Association Nursing Home Inc. Retirees

Demographic Profile of NBANH vs. the Canadian Labour Force



	NBANH Total	Canada Total
15 to 24	2.2%	16.2%
25 to 34	11.5%	21.3%
35 to 44	21.6%	23.8%
45 to 54	39.6%	24.1%
55 to 64	24.1%	12.6%
65 +	1.1%	2.0%

Demographic Profile of NBANH vs. the Canadian Labour Force

Age	% of Female	% of Male	% of Female from total	% of Male from total	NBANH Total	Canada Total
15 to 24	2.2%	1.7%	2.0%	0.2%	2.2%	16.2%
25 to 34	11.9%	8.1%	10.5%	1.0%	11.5%	21.3%
35 to 44	21.5%	22.1%	19.0%	2.6%	21.6%	23.8%
45 to 54	39.1%	42.9%	34.5%	5.1%	39.6%	24.1%
55 to 64	24.1%	24.2%	21.3%	2.9%	24.1%	12.6%
65 +	1.1%	0.9%	0.9%	0.1%	1.1%	2.0%
Total	100.0%	100.0%	88.1%	11.9%	100.0%	100.0%

Under / Over 45 Years Comparison for NBANH

Age Group	% Female of Total	% Male of Total	Total
Under 45	31.5%	3.8%	35.2%
45+ years of age	56.7%	8.1%	64.8%
	88.1%	11.9%	100.0%

Under / Over 45 Years Comparison for NBANH vs. the Canadian Labour Force

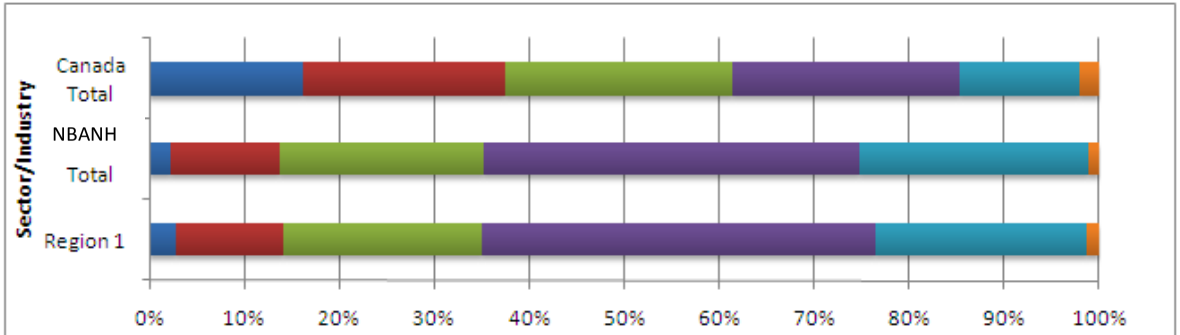
Age Group	% Female of Female Total	% Female in Age Group	% Male of Male Total	% Male in Age Group
NBANH				
Under 45	35.7%	89.2%	31.9%	10.8%
45+ years of age	64.3%	87.5%	68.1%	12.5%
Labour Force				
Under 45	60.90%	47.45%	60.02%	52.55%
45+ years of age	39.10%	46.53%	39.98%	53.47%

Region 1

Gender breakdown for Region 1

	Female	Male	Overall
Number of employees	922	117	1039
% split	88.7%	11.3%	100.0%
Average Age	46.6	47.6	46.7

Demographic Profile of Region1 vs. NBANH Overall and the Canadian Labour Force



	Region 1	NBANH Total	Canada Total
15 to 24	2.8%	2.2%	16.2%
25 to 34	11.4%	11.5%	21.3%
35 to 44	20.8%	21.6%	23.8%
45 to 54	41.5%	39.6%	24.1%
55 to 64	22.2%	24.1%	12.6%
65 +	1.3%	1.1%	2.0%

% Distribution

Under / Over 45 Years Comparison

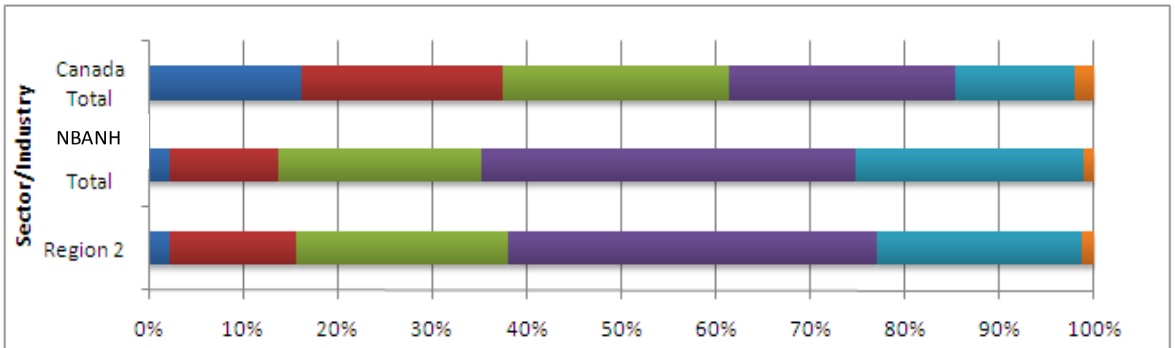
Age Group	% Female of Total	% Male of Total	Total
Under 45	31.6%	3.4%	34.9%
45+ years of age	57.2%	7.9%	65.1%
	88.7%	11.3%	100.0%

Region 2

Gender breakdown for Region 2

	Female	Male	Overall
Number of employees	933	96	1029
% split	90.7%	9.3%	100.0%
Average Age	46.0	48.9	46.3

Demographic Profile of Region 2 vs. NBNHA Overall and the Canadian Labour Force



	Region 2	NBANH Total	Canada Total
15 to 24	2.1%	2.2%	16.2%
25 to 34	13.5%	11.5%	21.3%
35 to 44	22.4%	21.6%	23.8%
45 to 54	39.0%	39.6%	24.1%
55 to 64	21.7%	24.1%	12.6%
65 +	1.3%	1.1%	2.0%

% Distribution

Under / Over 45 Years Comparison

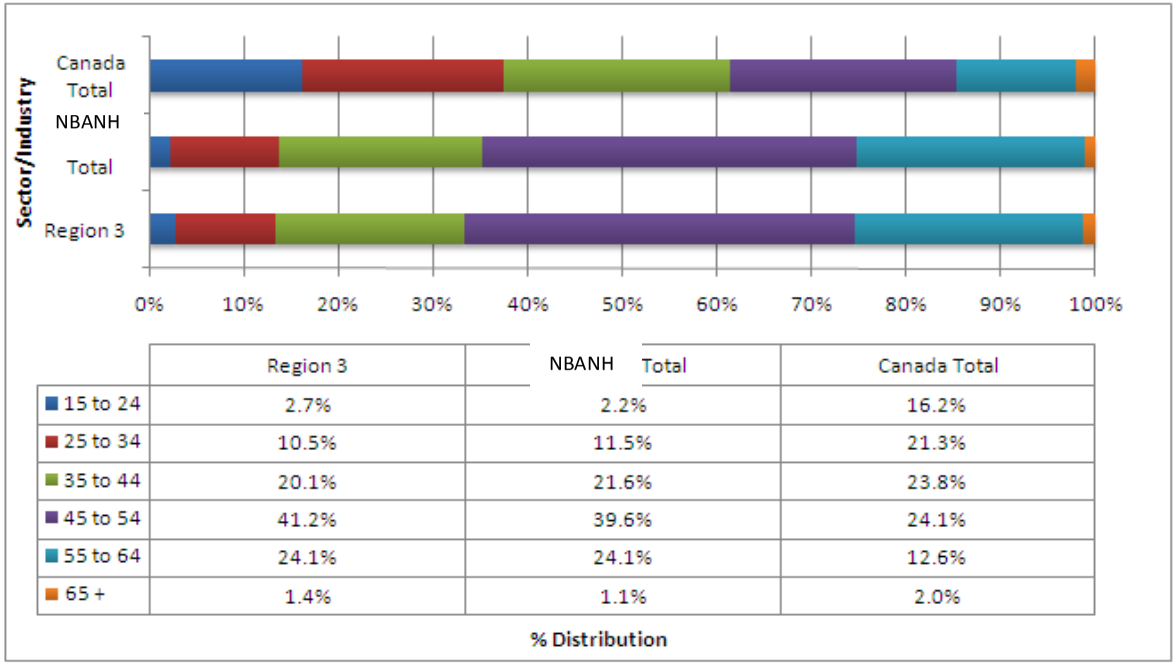
Age Group	% Female of Total	% Male of Total	Total
Under 45	35.4%	2.7%	38.1%
45+ years of age	55.3%	6.6%	61.9%
	90.7%	9.3%	100.0%

Region 3

Gender breakdown for Region 3

	Female	Male	Overall
Number of employees	664	67	731
% split	90.8%	9.2%	100.0%
Average Age	47.1	47.5	47.1

Demographic Profile of Region 3 vs. NBNHA Overall and the Canadian Labour Force



	Region 3	NBANH Total	Canada Total
15 to 24	2.7%	2.2%	16.2%
25 to 34	10.5%	11.5%	21.3%
35 to 44	20.1%	21.6%	23.8%
45 to 54	41.2%	39.6%	24.1%
55 to 64	24.1%	24.1%	12.6%
65 +	1.4%	1.1%	2.0%

% Distribution

Under / Over 45 Years Comparison

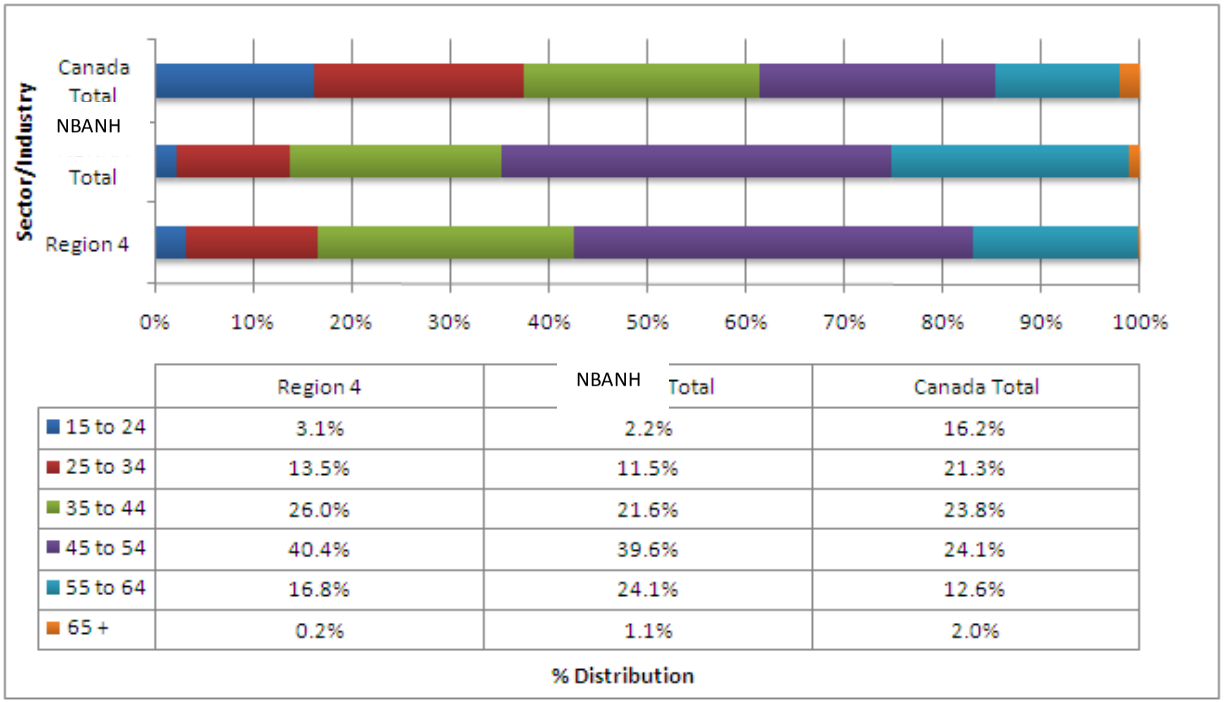
Age Group	% Female of Total	% Male of Total	Total
Under 45	30.1%	3.3%	33.4%
45+ years of age	60.7%	5.9%	66.6%
	90.8%	9.2%	100.0%

Region 4

Gender breakdown for Region 4

	Female	Male	Overall
Number of employees	357	66	423
% split	84.4%	15.6%	100.0%
Average Age	44.9	45.1	45.0

Demographic Profile of Region 4 vs. NBNHA Overall and the Canadian Labour Force



	Region 4	NBANH Total	Canada Total
15 to 24	3.1%	2.2%	16.2%
25 to 34	13.5%	11.5%	21.3%
35 to 44	26.0%	21.6%	23.8%
45 to 54	40.4%	39.6%	24.1%
55 to 64	16.8%	24.1%	12.6%
65 +	0.2%	1.1%	2.0%

% Distribution

Under / Over 45 Years Comparison

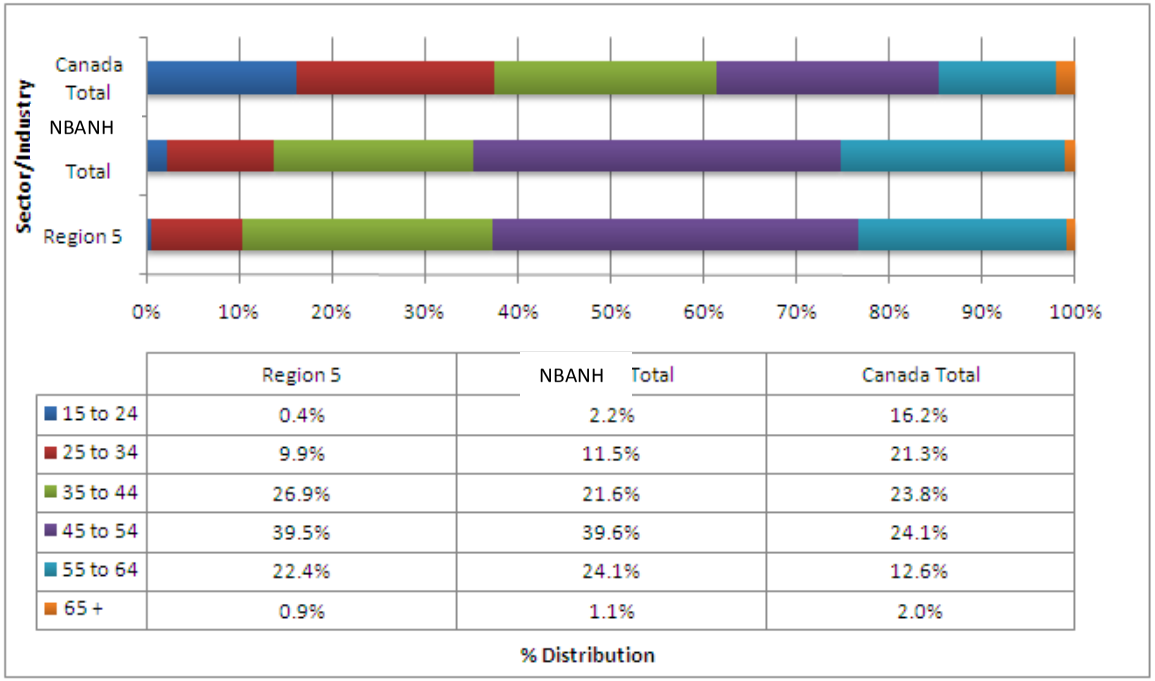
Age Group	% Female of Total	% Male of Total	Total
Under 45	35.5%	7.1%	42.6%
45+ years of age	48.9%	8.5%	57.4%
	84.4%	15.6%	100.0%

Region 5

Gender breakdown for Region 5

	Female	Male	Overall
Number of employees	183	40	223
% split	82.1%	17.9%	100.0%
Average Age	47.1	46.2	46.9

Demographic Profile of Region 5 vs. NBNHA Overall and the Canadian Labour Force



	Region 5	NBANH Total	Canada Total
15 to 24	0.4%	2.2%	16.2%
25 to 34	9.9%	11.5%	21.3%
35 to 44	26.9%	21.6%	23.8%
45 to 54	39.5%	39.6%	24.1%
55 to 64	22.4%	24.1%	12.6%
65 +	0.9%	1.1%	2.0%

% Distribution

Under / Over 45 Years Comparison

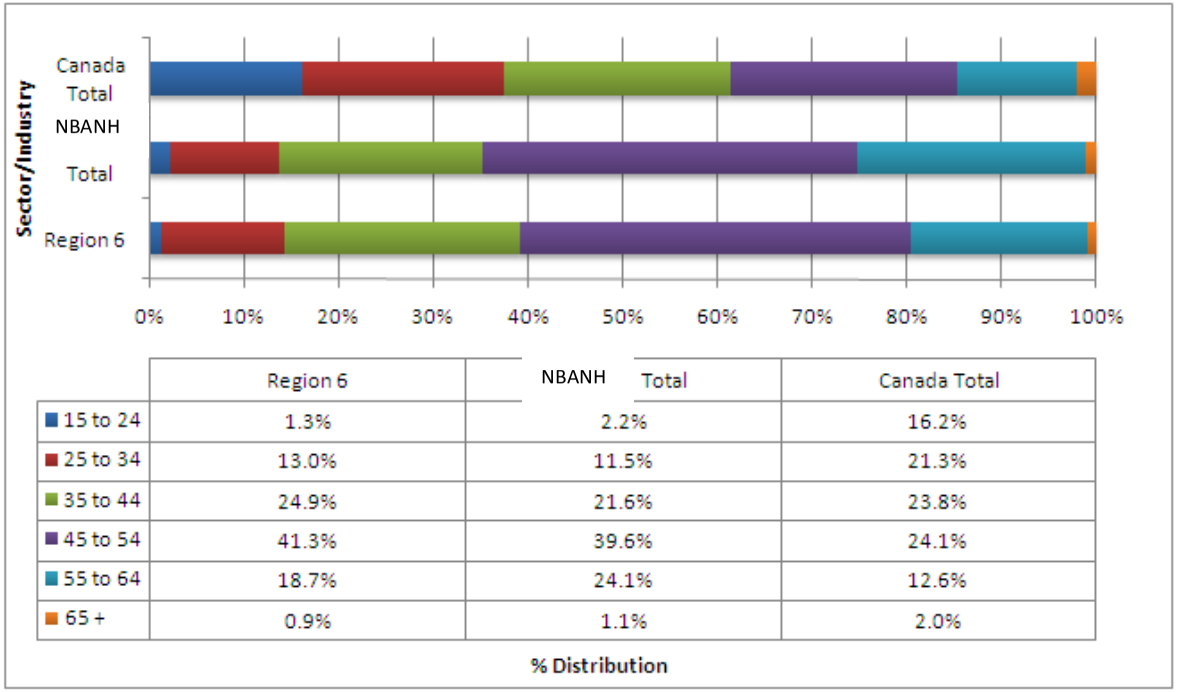
Age Group	% Female of Total	% Male of Total	Total
Under 45	31.4%	5.8%	37.2%
45+ years of age	50.7%	12.1%	62.8%
	82.1%	17.9%	100.0%

Region 6

Gender breakdown for Region 2

	Female	Male	Overall
Number of employees	462	93	555
% split	83.2%	16.8%	100.0%
Average Age	46.0	47.1	46.2

Demographic Profile of Region 6 vs. NBNHA Overall and the Canadian Labour Force



	Region 6	NBANH Total	Canada Total
15 to 24	1.3%	2.2%	16.2%
25 to 34	13.0%	11.5%	21.3%
35 to 44	24.9%	21.6%	23.8%
45 to 54	41.3%	39.6%	24.1%
55 to 64	18.7%	24.1%	12.6%
65 +	0.9%	1.1%	2.0%

% Distribution

Under / Over 45 Years Comparison

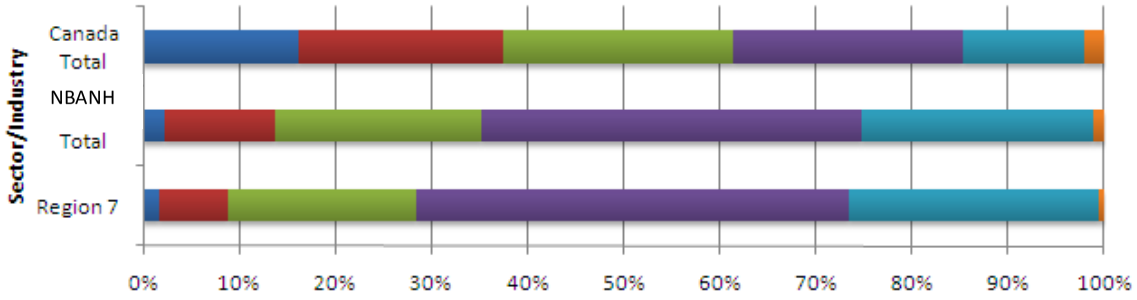
Age Group	% Female of Total	% Male of Total	Total
Under 45	33.2%	5.9%	39.1%
45+ years of age	50.1%	10.8%	60.9%
	83.2%	16.8%	100.0%

Region 7

Gender breakdown for Region 7

	Female	Male	Overall
Number of employees	283	33	316
% split	89.6%	10.4%	100.0%
Average Age	47.9	49.2	48.1

Demographic Profile of Region 7 vs. NBNHA Overall and the Canadian Labour Force



	Region 7	NBANH Total	Canada Total
15 to 24	1.6%	2.2%	16.2%
25 to 34	7.3%	11.5%	21.3%
35 to 44	19.6%	21.6%	23.8%
45 to 54	44.9%	39.6%	24.1%
55 to 64	25.9%	24.1%	12.6%
65 +	0.6%	1.1%	2.0%

% Distribution

Under / Over 45 Years Comparison

Age Group	% Female of Total	% Male of Total	Total
Under 45	26.6%	1.9%	28.5%
45+ years of age	63.0%	8.5%	71.5%
	89.6%	10.4%	100.0%

Health Determinant (Risk) Indicators

Another leading indicator of employee health, Health Determinant (Risk) Indicators are a measure that emerges before or at the start of a change or trend. It may be associated with certain current costs, but is also an indicator of future more significant costs. This section of the report examines NBANH's EAP data as leading indicators of health.

Employee Family Assistance Program

EFAP reflects help seeking behaviour. As a health indicator, EFAP has more than one purpose. When used preventatively for work-life services and stress, EFAP use is a positive indicator of proactive steps toward health. When used in response to more serious concerns, such personal emotional concerns, EFAP use is more of a risk indicator in a given population.

The following provides a brief summary of the EFAP findings for information purposes only, as NBANH already receives detailed EAP reports. This information is based on EFAP utilization data from 1 February 2010 – 31 May 2010, and is to be used in context with the other benefit information. Regional data was not available.

Observations

- NBANH's utilization (8.50%) is lower than the hospitals and healthcare sector average (13.46%).
- The majority of the cases (63.64%) were for counselling, whereas approximately one-third (36.36%) were for work-life consultations.
- Mental health is the greatest presenting issue overall for NBANH, as 'General Mental Health', 'Individual Crisis' and 'Addictions' together make up 40.71% of cases.
- Family issues are also a concern, making up one-third of cases.

Utilization

NBANH	Industry[7]
8.50%[8]	**13.46%**

[7] Shepell-fgi national norms 2009
[8] Annualized utilization based on 1 February 2010 – 31 May 2010 period

Presenting Issues for NBANH

Rank	Issue	% of all cases
1	General Family Issues	30.0%
2	General Mental Health	20.0%
3	Everyday Issues (community services and resources)	10.0%
4	Legal Issues	7.86%
5 (tie)	Individual Crisis	7.14%
5 (tie)	Child-Related Issues	7.14%
6 (tie)	Financial Issues	3.57%
6 (tie)	Addiction Issues	3.57%
7	Management Consultation	1.43%
8 (tie)	Heath & Wellness	0.71%
8 (tie)	Elder-Related Issues	0.71%

Health Management Systems Indicators

Health Management Systems are supports that organizations put in place for when employees become ill. Utilization of Health Management Systems is an important indicator to track over time is it indicates the health conditions for which employees have sought support through the workplace. As such, Health Management Systems are an indicator of workplace health as well. It is important to note, however, that these indicators are affected by plan design and the data quality provided by carriers. There are often substantial fluctuations in how benefit costs are distributed across benefit types. Generally, such fluctuations can occur due to changes plan design, carriers, and/or organizational change. Accordingly, it would be advisable to monitor costs over a longer period of time to confirm any possible trends and to also consult your providers for insight.

Prescription Drugs

This section therefore examines NBANH's lagging indicators of health through an analysis of prescription drug utilization. Claims data were provided by Assomption Life, for the period of 1 March 2009 to 28 February 2010.

This analysis presents findings for each disease category in 3 ways: i) as a proportion of claims costs, ii) as a proportion of claims incidence, and ii) on a per capita basis[9]. A benchmark[10] is provided where possible, in addition to the variance against the benchmark.

Observations

- Utilization for the top 5 disease categories at NBANH—cardiovascular diseases, endocrine and related disorders, mental disorders, digestive diseases, and musculoskeletal diseases and injuries— together represent 65% of NBANH's prescription drug utilization and 57% of costs.
- Cardiovascular diseases represent 17.04% of prescription drug utilization, and are the top driver of prescription drug costs (16.90%), in addition to having the highest per capita cost ($136.94). An analysis of the sub-disease categories reveals that cardiovascular drugs are being used predominantly to support hypertension.
- Endocrine and related disorders follow closely as the 2nd disease category, driving 14.36% of prescription drug utilization and 16.31% of prescription drug costs, as well as having a per capita cost of $132.12. Metabolic disorders and diabetes are the diseases that require the most prescription drug support within this disease category.
- Representing a per capita cost of $109.95, mental disorders are the third ranked disease category driving 13.57% of prescription drugs costs and the *greatest* proportion of prescription drug utilization (17.23%) of all disease categories. Neurotic, personal and non-psychotic disorders (e.g.: personality disorders, anxiety disorders, dependence, etc) are largely driving utilization of this disease category (13.79% of the 17.23% of the claims incidence). Depression, by contrast, represents a smaller percent of utilization (3.39% of the 17.23% of the claims incidence).
- Digestive diseases rank as the 4th prescription drug driver, representing 12.55% of costs and have a considerable per cap cost ($101.72), despite represent a smaller proportion of utilization (7.95%). The proportion of costs to support digestive disorders at NBANH is a staggering 46% higher than the national benchmark (8.58%). Prescription drug utilization for this disease category is almost entirely supporting diseases of the digestive system (oesophagus, stomach and duodenum – e.g.: gastritis, gastric ulcers, etc).

[9] The per cap cost is the cost of the disease divided by the number employees in that region.
[10] The benchmark is represented by the national data found in the Health Evidence data base for the former year.

- Musculoskeletal disorders, predominantly athropathies (disorders of the joints/connective tissue and arthritis) and dorsopathies (disorders of the back), have a per capita cost of $86.27, making up 10.64% of prescription drug costs—20% higher than the benchmark (8.59%)— although the represent a small proportion of prescription drug utilization (8.07%).
- These top 5 drivers of prescription drug costs and utilization remain the same across all regions, although in differing orders.

NBANH Overall

Prescription Drug Summary – NBANH Overall (ordered by Cost)

Disease Category	Estimated Occurrence (by Volume)	Estimated Occurrence (by Cost)	Per Cap Cost
Cardiovascular Diseases	17.04%	16.90%	$136.94
Endocrine and Related Disorders	14.36%	16.31%	$132.12
Mental Disorders	17.23%	13.57%	$109.95
Digestive Diseases	7.95%	12.55%	$101.72
Musculoskeletal Diseases and Injuries	8.70%	10.64%	$86.27
Respiratory Diseases	10.46%	6.46%	$52.32
Nervous system/Sense Organ Diseases	4.02%	6.13%	$49.70
Ill-defined Conditions	6.43%	4.93%	$40.01
Genitourinary Diseases	4.32%	3.06%	$24.82
Skin and Related Diseases	3.60%	2.96%	$23.98
Infectious and Parasitic Diseases	2.59%	2.38%	$19.26
Cancer	0.80%	2.34%	$18.92
Injury and Poisoning	2.34%	1.29%	$10.42
Blood Diseases	0.05%	0.35%	$2.86
Pregnancy	0.12%	0.13%	$1.04
Birth Defects	0.01%	0.01%	$0.13
Total	100.00%	100.00%	

NBANH Overall Drug Cost vs. 2009 Benchmark[11]

Disease Category	NBANH Overall	2009 Benchmark	Variance
Cardiovascular Diseases	16.90%	15.91%	0.99%
Endocrine and Related Disorders	16.31%	16.76%	-0.45%
Mental Disorders	13.57%	14.80%	-1.23%
Digestive Diseases	12.55%	8.58%	3.97%
Musculoskeletal Diseases and Injuries	10.64%	8.59%	2.05%
Respiratory Diseases	6.46%	9.41%	-2.95%
Nervous system/Sense Organ Diseases	6.13%	5.69%	0.44%
Ill-defined Conditions	4.93%	4.77%	0.16%
Genitourinary Diseases	3.06%	3.76%	-0.70%
Skin and Related Diseases	2.96%	4.10%	-1.14%
Infectious and Parasitic Diseases	2.38%	4.39%	-2.01%
Cancer	2.34%	1.11%	1.23%
Injury and Poisoning	1.29%	1.62%	-0.33%
Blood Diseases	0.35%	0.37%	-0.02%
Pregnancy	0.13%	0.12%	0.01%
Birth Defects	0.01%	0.02%	-0.01%
Total	100.11%	100.00%	

[11] 2009 Benchmark from Health Evidence database consisting of data analyzed in 2009.

Top 25 Sub-Disease Categories (ordered by cost) – NBANH Overall[12]

Sub-Disease Ranking	Disease Category	Sub-Disease Category	Estimated Occurrences (by Volume)	Estimated Occurrences (by Cost)
1	Cardiovascular Diseases	Hypertensive disease	11.64%	10.54%
2	Mental Disorders	Neurotic disorders and other nonpsychotic mental disorders	13.79%	10.37%
3	Endocrine and Related Disorders	Other metabolic disorders	5.45%	9.73%
4	Digestive Diseases	Diseases of oesophagus,stomach and duodenum	6.02%	8.16%
5	Musculoskeletal Diseases and Injuries	Arthropathies and related disorders	3.45%	6.59%
6	Endocrine and Related Disorders	Diabetes and other disorders of endocrine glands	5.73%	6.20%
7	Nervous system/Sense Organ Diseases	Migraine and other disorders of the central nervous systems	1.65%	5.08%
8	Respiratory Diseases	Asthma, COPD and allied conditions	4.85%	3.76%
9	Ill-defined Conditions	Symptoms	5.14%	3.66%
10	Digestive Diseases	Noninfective enteritis and colitis	0.80%	3.59%
11	Cardiovascular Diseases	Ischaemic heart disease	3.78%	3.52%
12	Mental Disorders	Depression and other psychoses	3.39%	3.15%
13	Musculoskeletal Diseases and Injuries	Dorsopathies	2.97%	2.24%
14	Skin and Related Diseases	Other inflammatory conditions of skin	2.17%	2.18%
15	Genitourinary Diseases	Other disorders of female genital tract	2.26%	1.87%
16	Respiratory Diseases	Acute respiratory infections	3.88%	1.67%
17	Cardiovascular Diseases	Diseases of pulmonary circulation	0.06%	1.32%
18	Ill-defined Conditions	Ill-defined and unknown causes of morbidity and mortality	1.22%	1.23%
19	Cancer	Malignant neoplasm of bone, connective tissues, skin and breast	0.18%	1.14%
20	Musculoskeletal Diseases and Injuries	Rheumatism, excluding the back	1.66%	1.12%
21	Cardiovascular Diseases	Other forms of heart disease	0.94%	0.76%
22	Infectious and Parasitic Diseases	Intestinal Infectious Diseases	0.67%	0.76%
23	Musculoskeletal Diseases and Injuries	Osteopathies and acquired musculoskeletal deformities	0.61%	0.69%
24	Injury and Poisoning	Sprains and strains of joints and adjacent muscles	1.35%	0.67%
25	Infectious and Parasitic Diseases	Viral Diseases	0.53%	0.65%
		Total	84.19%	90.65%

[12] This table shows utilization and costs at the sub-disease level, that is, prior to the diseases being rolled up into broader ICD9 disease categories. Top 25 Sub-Disease Categories by region can be found in the Appendix.

Region 1

Observations:

- Region 1 has a similar disease profile to NBANH overall, confirming the same health priorities in this region.
- Costs to support the top 5 disease categories in this region are notably higher compared to NBANH overall: 41% higher for musculoskeletal diseases and injuries, 32% higher for digestive diseases, 27% higher for mental health disorders, and 22% higher for cardiovascular diseases, on a per capita basis.

Region 1 Prescription Drug Summary (ordered by Cost)

Disease Category	Estimated Occurrence (by Volume)	Estimated Occurrence (by Cost)	Per Cap Cost
Cardiovascular Diseases	16.56%	17.47%	$177.03
Endocrine and Related Disorders	14.69%	14.75%	$149.49
Mental Disorders	18.69%	13.77%	$139.53
Digestive Diseases	8.06%	13.23%	$134.05
Musculoskeletal Diseases and Injuries	8.57%	12.12%	$122.76
Nervous system/Sense Organ Diseases	4.21%	7.53%	$76.32
Respiratory Diseases	9.67%	6.06%	$61.36
Ill-defined Conditions	6.18%	4.28%	$43.36
Genitourinary Diseases	3.62%	2.52%	$25.52
Skin and Related Diseases	3.89%	2.38%	$24.14
Cancer	0.70%	2.22%	$22.48
Infectious and Parasitic Diseases	2.61%	1.91%	$19.39
Injury and Poisoning	2.34%	1.03%	$10.40
Blood Diseases	0.06%	0.56%	$5.71
Pregnancy	0.14%	0.15%	$1.48
Birth Defects	0.01%	0.02%	$0.17
Total	100.00%	100.00%	

Region 1 Drug Cost vs. 2009 Benchmark[13]

Disease Category	Region 1	NBANH Overall	2009 Benchmark	Variance to Benchmark
Cardiovascular Diseases	17.47%	16.90%	15.91%	1.56%
Endocrine and Related Disorders	14.75%	16.31%	16.76%	-2.01%
Mental Disorders	13.77%	13.57%	14.80%	-1.03%
Digestive Diseases	13.23%	12.55%	8.58%	4.65%
Musculoskeletal Diseases and Injuries	12.12%	10.64%	8.59%	3.52%
Nervous system/Sense Organ Diseases	7.53%	6.13%	5.69%	1.84%
Respiratory Diseases	6.06%	6.46%	9.41%	-3.35%
Ill-defined Conditions	4.28%	4.93%	4.77%	-0.49%
Genitourinary Diseases	2.52%	3.06%	3.76%	-1.24%
Skin and Related Diseases	2.38%	2.96%	4.10%	-1.71%
Cancer	2.22%	2.34%	1.11%	1.11%
Infectious and Parasitic Diseases	1.91%	2.38%	4.39%	-2.48%
Injury and Poisoning	1.03%	1.29%	1.62%	-0.59%
Blood Diseases	0.56%	0.35%	0.37%	0.19%
Pregnancy	0.15%	0.13%	0.12%	0.03%
Birth Defects	0.02%	0.01%	0.02%	0.00%
Total	100.00%	100.01%	100.00%	

[13] 2009 Benchmark from Health Evidence database consisting of data analyzed in 2009.

Region 2

Observations:

- Region 2 has a similar disease profile to NBANH overall, with little difference in the proportion of costs and utilization for the top 5 disease categories.
- The per capita cost to support the top 4 disease categories--endocrine and related disorders, cardiovascular diseases, mental disorders, and digestive diseases)--is somewhat lower than observed for NBANH overall, while the per capita cost to support musculoskeletal diseases is the similar to the NBANH norm.

Region 2 Prescription Drug Summary (ordered by Cost)

Disease Category	Estimated Occurrence (by Volume)	Estimated Occurrence (by Cost)	Per Cap Cost
Endocrine and Related Disorders	14.18%	16.31%	$118.89
Cardiovascular Diseases	16.42%	15.95%	$116.27
Mental Disorders	16.27%	12.64%	$92.14
Digestive Diseases	7.51%	12.39%	$90.31
Musculoskeletal Diseases and Injuries	8.81%	11.92%	$86.88
Nervous system/Sense Organ Diseases	4.58%	8.47%	$61.77
Respiratory Diseases	12.23%	7.03%	$51.27
Ill-defined Conditions	6.05%	4.96%	$36.17
Skin and Related Diseases	3.82%	2.89%	$21.08
Infectious and Parasitic Diseases	2.57%	2.74%	$19.96
Genitourinary Diseases	4.07%	2.55%	$18.59
Injury and Poisoning	2.30%	1.36%	$9.91
Cancer	1.01%	0.50%	$3.64
Pregnancy	0.15%	0.17%	$1.26
Blood Diseases	0.03%	0.13%	$0.94
Birth Defects	0.01%	0.01%	$0.05
Total	100.01%	100.00%	

Region 2 Drug Cost vs. 2009 Benchmark[14]

Disease Category	Region 2	NBANH Overall	2009 Benchmark	Variance to Benchmark
Endocrine and Related Disorders	16.31%	16.31%	16.76%	-0.46%
Cardiovascular Diseases	15.95%	16.90%	15.91%	0.03%
Mental Disorders	12.64%	13.57%	14.80%	-2.16%
Digestive Diseases	12.39%	12.55%	8.58%	3.81%
Musculoskeletal Diseases and Injuries	11.92%	10.64%	8.59%	3.32%
Nervous system/Sense Organ Diseases	8.47%	6.13%	5.69%	2.78%
Respiratory Diseases	7.03%	6.46%	9.41%	-2.38%
Ill-defined Conditions	4.96%	4.93%	4.77%	0.20%
Skin and Related Diseases	2.89%	2.96%	4.10%	-1.20%
Infectious and Parasitic Diseases	2.74%	2.38%	4.39%	-1.65%
Genitourinary Diseases	2.55%	3.06%	3.76%	-1.21%
Injury and Poisoning	1.36%	1.29%	1.62%	-0.26%
Cancer	0.50%	2.34%	1.11%	-0.61%
Pregnancy	0.17%	0.13%	0.12%	0.06%
Blood Diseases	0.13%	0.35%	0.37%	-0.24%
Birth Defects	0.01%	0.01%	0.02%	-0.01%
Total	100.00%	100.01%	100.00%	

[14] 2009 Benchmark from Health Evidence database consisting of data analyzed in 2009.

Region 3

Observations:

- Region 3 has a similar disease profile to NBANH overall, with the top 5 disorders being key health priorities in this region as well.
- On a per capita basis, this region has higher prescription drug costs to support endocrine and related disorders as well as cardiovascular diseases, yet lower costs to support mental health disorders, digestive diseases, and most notably, musculoskeletal diseases and injuries (a 24% lower per capita cost), compared to NBANH overall.
- The incidence of cancer is higher in this region, compared to the incidence of claims at BNANH overall, in addition to being notably higher than the benchmark from a cost perspective.

Prescription Drug Summary (ordered by Cost)

Disease Category	Estimated Occurrence (by Volume)	Estimated Occurrence (by Cost)	Per Cap Cost
Endocrine and Related Disorders	15.33%	18.29%	$149.50
Cardiovascular Diseases	18.60%	18.10%	$147.93
Mental Disorders	14.78%	11.78%	$96.28
Digestive Diseases	8.27%	10.67%	$87.19
Musculoskeletal Diseases and Injuries	8.56%	7.99%	$65.31
Nervous system/Sense Organ Diseases	4.22%	6.77%	$55.34
Respiratory Diseases	10.78%	6.02%	$49.18
Cancer	1.16%	5.85%	$47.86
Ill-defined Conditions	6.03%	5.51%	$45.05
Genitourinary Diseases	4.12%	3.00%	$24.55
Infectious and Parasitic Diseases	2.29%	2.10%	$17.19
Skin and Related Diseases	3.37%	1.92%	$15.71
Injury and Poisoning	2.30%	1.80%	$14.72
Pregnancy	0.14%	0.14%	$1.17
Blood Diseases	0.04%	0.05%	$0.42
Birth Defects	0.01%	0.01%	$0.08
Total	100.01%	100.00%	

Region 3 Drug Cost vs. 2009 Benchmark[15]

Disease Category	Region 3	NBANH Overall	2009 Benchmark	Variance to Benchmark
Endocrine and Related Disorders	18.29%	16.31%	16.76%	1.52%
Cardiovascular Diseases	18.10%	16.90%	15.91%	2.18%
Mental Disorders	11.78%	13.57%	14.80%	-3.02%
Digestive Diseases	10.67%	12.55%	8.58%	2.09%
Musculoskeletal Diseases and Injuries	7.99%	10.64%	8.59%	-0.60%
Nervous system/Sense Organ Diseases	6.77%	6.13%	5.69%	1.08%
Respiratory Diseases	6.02%	6.46%	9.41%	-3.39%
Cancer	5.85%	2.34%	1.11%	4.75%
Ill-defined Conditions	5.51%	4.93%	4.77%	0.75%
Genitourinary Diseases	3.00%	3.06%	3.76%	-0.76%
Infectious and Parasitic Diseases	2.10%	2.38%	4.39%	-2.29%
Skin and Related Diseases	1.92%	2.96%	4.10%	-2.17%
Injury and Poisoning	1.80%	1.29%	1.62%	0.18%
Pregnancy	0.14%	0.13%	0.12%	0.03%
Blood Diseases	0.05%	0.35%	0.37%	-0.32%
Birth Defects	0.01%	0.01%	0.02%	-0.01%
Total	100.00%	100.01%	100.00%	

[15] 2009 Benchmark from Health Evidence database consisting of data analyzed in 2009.

Region 4

Observations:

- Region 4's disease profile aligns to that of to NBANH overall, with the top 5 disease categories making up the key areas for action to support health.
- It is noted that per capita costs to support digestive disorders as well as musculoskeletal disorders and injuries, is considerably lower (32% and 37%, respectively) compared to NBANH overall.

Region 4 Prescription Drug Summary (ordered by Cost)

Disease Category	Estimated Occurrence (by Volume)	Estimated Occurrence (by Cost)	Per Cap Cost
Endocrine and Related Disorders	12.53%	19.70%	$135.14
Cardiovascular Diseases	15.56%	17.04%	$116.88
Mental Disorders	18.85%	15.86%	$108.85
Digestive Diseases	7.32%	9.92%	$68.08
Respiratory Diseases	10.77%	8.31%	$56.99
Musculoskeletal Diseases and Injuries	8.86%	7.90%	$54.23
Ill-defined Conditions	8.44%	6.44%	$44.17
Nervous system/Sense Organ Diseases	3.83%	3.75%	$25.74
Infectious and Parasitic Diseases	2.79%	2.63%	$18.04
Genitourinary Diseases	3.76%	2.61%	$17.88
Skin and Related Diseases	3.88%	2.51%	$17.25
Cancer	0.59%	1.48%	$10.15
Injury and Poisoning	2.66%	1.21%	$8.29
Blood Diseases	0.05%	0.53%	$3.61
Pregnancy	0.12%	0.10%	$0.72
Birth Defects	0.01%	0.01%	$0.09
Total	100.01%	100.00%	

Region 4 Drug Cost vs. 2009 Benchmark[16]

Disease Category	Region 4	NBANH Overall	2009 Benchmark	Variance to Benchmark
Endocrine and Related Disorders	19.70%	16.31%	16.76%	2.93%
Cardiovascular Diseases	17.04%	16.90%	15.91%	1.12%
Mental Disorders	15.86%	13.57%	14.80%	1.07%
Digestive Diseases	9.92%	12.55%	8.58%	1.35%
Respiratory Diseases	8.31%	6.46%	9.41%	-1.10%
Musculoskeletal Diseases and Injuries	7.90%	10.64%	8.59%	-0.69%
Ill-defined Conditions	6.44%	4.93%	4.77%	1.67%
Nervous system/Sense Organ Diseases	3.75%	6.13%	5.69%	-1.94%
Infectious and Parasitic Diseases	2.63%	2.38%	4.39%	-1.76%
Genitourinary Diseases	2.61%	3.06%	3.76%	-1.16%
Skin and Related Diseases	2.51%	2.96%	4.10%	-1.58%
Cancer	1.48%	2.34%	1.11%	0.37%
Injury and Poisoning	1.21%	1.29%	1.62%	-0.41%
Blood Diseases	0.53%	0.35%	0.37%	0.15%
Pregnancy	0.10%	0.13%	0.12%	-0.01%
Birth Defects	0.01%	0.01%	0.02%	-0.01%
Total	100.00%	100.01%	100.00%	

[16] 2009 Benchmark from Health Evidence database consisting of data analyzed in 2009.

Region 5

Observations:

- Although the disease profile in Region 5 is similar to NBANH overall, it is the only region where musculoskeletal diseases and injuries as well as digestive diseases rank as the top 2 cost drivers, having notably higher costs, though lower incidence.
- The proportion of costs to support musculoskeletal diseases and injuries as well as digestive diseases is also greatly above the benchmark (86% higher for musculoskeletal diseases and injuries, and 71% higher for digestive diseases).
- This region has the highest per capita costs to support the top 5 disease categories.

Region 5 Prescription Drug Summary (ordered by Cost)

Disease Category	Estimated Occurrence (by Volume)	Estimated Occurrence (by Cost)	Per Cap Cost
Musculoskeletal Diseases and Injuries	9.90%	15.97%	$167.57
Digestive Diseases	7.06%	14.70%	$154.22
Endocrine and Related Disorders	13.39%	14.29%	$149.90
Mental Disorders	20.78%	14.09%	$147.84
Cardiovascular Diseases	16.67%	13.23%	$138.80
Respiratory Diseases	9.29%	5.75%	$60.33
Ill-defined Conditions	7.93%	5.15%	$54.02
Nervous system/Sense Organ Diseases	3.08%	3.49%	$36.63
Genitourinary Diseases	4.02%	3.18%	$33.40
Infectious and Parasitic Diseases	2.27%	2.57%	$26.91
Cancer	0.63%	2.51%	$26.30
Skin and Related Diseases	2.24%	2.12%	$22.21
Blood Diseases	0.06%	1.46%	$15.31
Injury and Poisoning	2.55%	1.38%	$14.50
Pregnancy	0.11%	0.09%	$0.92
Birth Defects	0.02%	0.02%	$0.16
Total	100.01%	100.00%	

Region 5 Drug Cost vs. 2009 Benchmark[17]

Disease Category	Region 5	NBANH Overall	2009 Benchmark	Variance to Benchmark
Musculoskeletal Diseases and Injuries	15.97%	10.64%	8.59%	7.38%
Digestive Diseases	14.70%	12.55%	8.58%	6.12%
Endocrine and Related Disorders	14.29%	16.31%	16.76%	-2.47%
Mental Disorders	14.09%	13.57%	14.80%	-0.70%
Cardiovascular Diseases	13.23%	16.90%	15.91%	-2.68%
Respiratory Diseases	5.75%	6.46%	9.41%	-3.66%
Ill-defined Conditions	5.15%	4.93%	4.77%	0.38%
Nervous system/Sense Organ Diseases	3.49%	6.13%	5.69%	-2.20%
Genitourinary Diseases	3.18%	3.06%	3.76%	-0.58%
Infectious and Parasitic Diseases	2.57%	2.38%	4.39%	-1.83%
Cancer	2.51%	2.34%	1.11%	1.40%
Skin and Related Diseases	2.12%	2.96%	4.10%	-1.98%
Blood Diseases	1.46%	0.35%	0.37%	1.09%
Injury and Poisoning	1.38%	1.29%	1.62%	-0.24%
Pregnancy	0.09%	0.13%	0.12%	-0.03%
Birth Defects	0.02%	0.01%	0.02%	-0.01%
Total	100.00%	100.01%	100.00%	

[17] 2009 Benchmark from Health Evidence database consisting of data analyzed in 2009.

Region 6

Observations:

- Region 6's disease profile aligns with that of NBANH overall, however, with a notably lower per capita cost across all disease categories.[18]
- The proportion of costs to support the top 5 disease categories is similar to the benchmark, with the exception of musculoskeletal diseases and injuries as well as digestive diseases, which are notably higher than the benchmark (62% and 20%, respectively)—this appears to be a trend across NBANH in general.

Prescription Drug Summary (ordered by Cost)

Disease Category	Estimated Occurrence (by Volume)	Estimated Occurrence (by Cost)	Per Cap Cost
Cardiovascular Diseases	17.11%	17.21%	$123.78
Endocrine and Related Disorders	14.72%	16.73%	$120.33
Mental Disorders	17.24%	14.24%	$102.47
Digestive Diseases	8.45%	13.91%	$100.04
Musculoskeletal Diseases and Injuries	8.14%	10.37%	$74.62
Respiratory Diseases	9.11%	6.27%	$45.09
Genitourinary Diseases	6.83%	6.03%	$43.36
Ill-defined Conditions	6.05%	4.88%	$35.11
Infectious and Parasitic Diseases	2.85%	3.02%	$21.73
Skin and Related Diseases	3.38%	2.76%	$19.87
Nervous system/Sense Organ Diseases	3.20%	2.32%	$16.68
Injury and Poisoning	2.23%	1.38%	$9.93
Cancer	0.59%	0.81%	$5.81
Pregnancy	0.07%	0.05%	$0.38
Blood Diseases	0.04%	0.02%	$0.11
Birth Defects	0.01%	0.01%	$0.06
Total	100.01%	100.00%	

[18] Again, these indicators are affected by plan design, the data quality provided by carriers and organizational changes, so it would be advisable to monitor costs over a longer period of time and to consult your providers for insight prior to confirming any trends.

Region 6 Drug Cost vs. 2009 Benchmark

Disease Category	Region 6	NBANH Overall	2009 Benchmark	Variance to Benchmark
Cardiovascular Diseases	17.21%	16.90%	15.91%	1.29%
Endocrine and Related Disorders	16.73%	16.31%	16.76%	-0.04%
Mental Disorders	14.24%	13.57%	14.80%	-0.55%
Digestive Diseases	13.91%	12.55%	8.58%	5.33%
Musculoskeletal Diseases and Injuries	10.37%	10.64%	8.59%	1.78%
Respiratory Diseases	6.27%	6.46%	9.41%	-3.14%
Genitourinary Diseases	6.03%	3.06%	3.76%	2.26%
Ill-defined Conditions	4.88%	4.93%	4.77%	0.11%
Infectious and Parasitic Diseases	3.02%	2.38%	4.39%	-1.37%
Skin and Related Diseases	2.76%	2.96%	4.10%	-1.33%
Nervous system/Sense Organ Diseases	2.32%	6.13%	5.69%	-3.38%
Injury and Poisoning	1.38%	1.29%	1.62%	-0.24%
Cancer	0.81%	2.34%	1.11%	-0.30%
Pregnancy	0.05%	0.13%	0.12%	-0.06%
Blood Diseases	0.02%	0.35%	0.37%	-0.36%
Birth Defects	0.01%	0.01%	0.02%	-0.01%
Total	100.00%	100.01%	100.00%	

Region 7

Observations:

- Region 7's disease profile largely aligns with that observed at NBANH overall, yet musculoskeletal diseases and injuries rank much lower in this region only.
- In this region endocrine and related disorders, cardiovascular diseases and mental disorders are the greatest cost and utilization driving disease categories, much like observed for NBANH overall.
- Most significantly, the proportion of costs to support musculoskeletal diseases and injuries in this region is considerably lower compared to NBANH overall and the benchmark—123% lower than NBANH overall and 98% lower than the benchmark. On a per capita basis, region 7 also spends 145% less to support musculoskeletal diseases and injuries. Additional enquiry could be made to this finding to discover if there are any internal best practices that maybe leading to this positive result.[19]
- Skin disorders rank much higher in region 7. Although they share the same incidence as observed for NBANH overall, the proportion of costs to support these disease is considerably higher than NBANH overall (66% higher) and the benchmark (53%). Skin disorders are also 68% more expensive to support in this region on a per capita basis ($76.74 for region 2 vs. $23.98 overall).

Region 7 Prescription Drug Summary (ordered by Cost)

Disease Category	Estimated Occurrence (by Volume)	Estimated Occurrence (by Cost)	Per Cap Cost
Endocrine and Related Disorders	15.29%	17.83%	$158.31
Cardiovascular Diseases	19.16%	17.36%	$154.12
Mental Disorders	14.95%	15.62%	$138.68
Digestive Diseases	8.44%	12.11%	$107.49
Skin and Related Diseases	3.59%	8.65%	$76.74
Respiratory Diseases	10.76%	6.34%	$56.27
Ill-defined Conditions	5.93%	4.79%	$42.52
Musculoskeletal Diseases and Injuries	8.06%	4.34%	$38.55
Nervous system/Sense Organ Diseases	3.93%	3.49%	$30.96
Cancer	0.66%	3.19%	$28.28
Genitourinary Diseases	4.27%	2.75%	$24.37
Infectious and Parasitic Diseases	2.70%	2.36%	$20.92
Injury and Poisoning	2.12%	0.93%	$8.25
Blood Diseases	0.06%	0.17%	$1.51
Pregnancy	0.10%	0.07%	$0.65
Birth Defects	0.01%	0.01%	$0.06
Total	100.01%	100.00%	

[19] Again, these indicators are affected by plan design, the data quality provided by carriers and organizational changes, so it would be advisable to monitor costs over a longer period of time and to consult your providers for insight prior to confirming any trends.

Region 7 Drug Cost vs. 2009 Benchmark[20]

Disease Category	Region 6	NBANH Overall	2009 Benchmark	Variance to Benchmark
Endocrine and Related Disorders	17.83%	16.31%	16.76%	1.07%
Cardiovascular Diseases	17.36%	16.90%	15.91%	1.45%
Mental Disorders	15.62%	13.57%	14.80%	0.82%
Digestive Diseases	12.11%	12.55%	8.58%	3.53%
Skin and Related Diseases	8.65%	2.96%	4.10%	4.55%
Respiratory Diseases	6.34%	6.46%	9.41%	-3.07%
Ill-defined Conditions	4.79%	4.93%	4.77%	0.02%
Musculoskeletal Diseases and Injuries	4.34%	10.64%	8.59%	-4.25%
Nervous system/Sense Organ Diseases	3.49%	6.13%	5.69%	-2.21%
Cancer	3.19%	2.34%	1.11%	2.08%
Genitourinary Diseases	2.75%	3.06%	3.76%	-1.02%
Infectious and Parasitic Diseases	2.36%	2.38%	4.39%	-2.03%
Injury and Poisoning	0.93%	1.29%	1.62%	-0.69%
Blood Diseases	0.17%	0.35%	0.37%	-0.20%
Pregnancy	0.07%	0.13%	0.12%	-0.04%
Birth Defects	0.01%	0.01%	0.02%	-0.01%
Total	100.00%	100.01%	100.00%	

[20] 2009 Benchmark from Health Evidence database consisting of data analyzed in 2009.

Recommendations

To support organizational and employee health there is a need to focus on moving toward healthy workplace best practice. This will ensure a work environment and culture that supports employees to have healthy lifestyles and mitigate health risks. Secondly, building upon a foundation of healthy workplace best practices, health promotion and disease management interventions, focusing on the areas that impact employers and employees most, should be put in place. Together, health promotion and disease management supports the full continuum of health.

Workplace health promotion aims, through the joint effort of the organization, its employees, and its partners, to contribute to improving workplace health and well-being and reducing the impact of work-related ill health of the workforce. This is achieved through a combination of improving the work organization and the working environment, and promoting the active participation of employees in health activities and healthy living overall.

Disease management aims to *preventatively* address disease with a focus on health and through the promotion healthy behaviours and disease/condition self-management, as opposed to traditional healthcare approaches that focus on illness and seek to manage acute episodes and symptoms. Workplace disease management programs focus on education to prevent the progression of disease or emergence of disease symptoms, as well as screening aimed at early detection, as primary interventions. Tertiary prevention is achieved through health coaching programs, where applicable.

Using the combined health promotion-disease management approach, it is recommended that NBANH develops a prevention strategy to target the most important health care issues among their employee population. This includes:

- **Cardiovascular disease**
- **Diabetes (Endocrine and related disorders)**
- **Mental disorders**
- **Digestive disorders**
- **Musculoskeletal disorders**

Specific recommendations include:

Cardiovascular disease

Offer worksite health screening with the objective to identify undetected high blood pressure, as well as educate low risk employees to prevent cardiovascular disease and also support moderate and high-risk risk employees to self-manage their condition.

- Screening should include a plasma cholesterol test, including screening for HDL, LDL, HDL-LDL ratio and total cholesterol; blood pressure; BMI and abdominal girth risks; and exercise, smoking, stress and nutrition risks.
- Low risk employees should be provided with on-the-spot coaching and educational material, while moderate and high risk employees should be referred into a health coaching program to create a personalized and self-managed plan, supported by a nurse educator, to ultimately modify behaviours.
- Health screening and coaching should employ and evidence-based model, and should include both biometric measures and lifestyle assessment.
- Health coaching should employ an individualized, multi-risk factor, gender-specific approach which focuses on personal preferences and learning style.

Implement a cholesterol education program for those diagnosed or at-risk.

- Provide educational interventions focusing on smoking cessation, weight management and physical activity, through seminars or nurse-led education sessions for those with cholesterol risk.
- Education should focus on multiple risk factor interventions to optimize their synergistic effect in producing behaviour change in key areas that drive cholesterol risk.

Execute an organization-wide healthy lifestyles communications campaign focusing on awareness of health risks that prevent cardiovascular disease.

- Design a targeted communications campaign focusing on promoting healthy lifestyle habits, including diet, exercise, stress management and smoking.

Diabetes

Offer worksite health screening with the objective to identify undetected elevated blood glucose, as well as educate low risk employees to prevent diabetes, support moderate risk employees to delay diabetes, and to assist high risk employees to self-manage their condition and prevent future complications.

- Screening should include a plasma glucose and cholesterol test, BMI and abdominal girth measurement, and lifestyle questionnaire.
- Low risk employees should be provided with on-the-spot coaching and educational material, while moderate and high risk employees should be referred into a health coaching program to create a personalized and self-managed plan, supported by a nurse or diabetes educator, to ultimately modify behaviours.
- Health screening and coaching should employ and evidence-based model, and should include biometric and lifestyle measures.

Implement a diabetes-specific educational program for those diagnosed or at-risk.

- Provide lunch-hour nurse-led educational sessions focusing on nutrition, meal planning, exercise, preventing complications and stress.

Execute an organization-wide healthy lifestyles communications campaign focusing on awareness of health risks that prevent diabetes.

- Design a targeted communications campaign focusing on promoting healthy lifestyle habits and educate on the precursors of diabetes.

Mental Disorders

Leverage the EAP as a specialized mental health provider. Specialized services should include:

- A disability case management process to resolve the psychological barriers to return-to-work for employees on disability.
- A specialized depression care program, offering evidenced-based support for employees self-referring to the EAP for depression and anxiety.
- A Substance Abuse Program (SAP), providing assessment and treatment recommendations related to drug/alcohol addiction provided by a specialized counselor.
- Structured Relapse Prevention Program (SRPP), providing longer-term (24-months) follow-up to prevent relapse and disability for those who have completed an addictions program.

Provide mental health training to managers, with the objective of enabling managers to detect and refer employees who might be struggling with a mental health concern.

- Train managers with the ability to recognize when an employee is struggling or troubled, showing signs of a mental health issue, or demonstrating any precursors to mental illness or relapse.
- Training should also cover intervention in the above situations and triage to support.
- Training is successful when delivered in a 'Mental Health First Aid' workshop format, where Managers are able to learn and practice these skills training, ultimately bolstering their ability deal effectively with increasing mental health issues in the workplace.

Provide an organization-wide mental health communications campaign to help de-stigmatize mental illness and acquaint employees with the available resources through the EAP, benefits program, and in the community.

- Provide materials discussing the nature of depression, effectiveness of depression treatments, the precursors of depression, as well as the available depression supports, so that employees are able to detect symptoms of mental illness and proactively address their concerns. Target mental health awareness to specific employee categories and age groups by focusing on relevant issues.
- Consider designing an annual mental illness awareness campaign, and bolster impact by aligning awareness intervention with national mental health activities, such as Healthy Workplace Week, Mental Illness Awareness Week, and Mental Health Week.

Incorporate communication and problems solving skills into educational and professional development programming for both managers and employees.

- Communication and problem solving skills are a clear benefit in business management, team management and workload management. The development of these skills should be included in educational and professional development for both managers and employees.
- Training should include reinforcements that specifically highlight their application to the workplace, and should be provided annually.
- Short and long-term program goals and a program evaluation plan should be developed in the process, along with the training content.
- Enhance management skills further by empowering the Manager to be able to productively coach employees in effective communication and problem solving. This Manager-Employee coaching will help diffuse interpersonal problems and manage organizational challenges and workloads which would otherwise lead to stress, conflict and burnout. These skills can help address some of the precursors of mental ill health.

Digestive Diseases

Offer a worksite smoking cessation program, based on best practice, geared to assist tobacco-dependent employees to quit smoking and mitigate severe smoking-related gastric disorders.

- Smoking cessation programs should follow best practice by offering:
  - behavioural *and* pharmacological interventions
  - a supportive environment, backed by policy regarding the establishment of a smoke-free work environment
  - an opportunity (such a scheduled group session) for tobacco-dependent employees to exchange of information and knowledge, and become more aware of the need to change social norms related to smoking
- Consider implementing a co-payment plan and facilitated process for employees to obtain pharmacological aids.
- Offer incentives for on-going participation in smoking cessation program.

Implement a stress management education program.

- Provide educational interventions focusing active living, time management, work-life balance, and actual relaxation techniques, through seminars or educator-lead sessions for all interested employees.
- Consider offering introductory sessions to socialize/familiarize employees' new stress-reducing activities.
- Leverage education tools offered by your EAP provider.

Leverage efforts applied to deliver the healthy lifestyles communications campaign for cardiovascular disease to bring awareness of risk factors that are also co-morbid of digestive disorders.

- The targeted communications campaign should employ a synergistic approach by focusing on promoting healthy lifestyle habits, including diet, exercise, stress management and smoking—risks that lead to both cardiovascular and digestive diseases.

Musculoskeletal Diseases

Execute an organization-wide campaign focusing on awareness of good functional health, including:

- Awareness of healthy biometrics (blood pressure, BMI, cholesterol and blood glucose) and healthy lifestyle (active living, smoking cessation, healthy diet).
- Awareness activities that enable positive functional health and can be easily integrated into daily home and work activities.

Implement a corporate ergonomic risk reduction program, including:

- A corporate stretching program, providing formal instruction and on-going motivation to enable employees to incorporate stretching and good working postures into daily work.
- An employee orientation on musculoskeletal illness symptoms and available referral/support resources to promote early detection and early intervention.
- On-site functional abilities testing as an early intervention strategy to improve functioning and lessen the likelihood of injury.

Appendix A – Regional Sub-Disease Categories

Region 1 Top 25 Sub-Disease Categories (ordered by cost)

Sub-Disease Ranking	Disease Category	Sub-Disease Category	Estimated Occurrences (by Volume)	Estimated Occurrences (by Cost)
1	Mental Disorders	Neurotic disorders and other nonpsychotic mental disorders	11.12%	15.09%
2	Cardiovascular Diseases	Hypertensive disease	8.57%	10.96%
3	Endocrine and Related Disorders	Diabetes and other disorders of endocrine glands	5.58%	5.95%
4	Endocrine and Related Disorders	Other metabolic disorders	8.87%	5.91%
5	Digestive Diseases	Diseases of oesophagus,stomach and duodenum	7.15%	5.91%
6	Ill-defined Conditions	Symptoms	3.15%	4.90%
7	Respiratory Diseases	Asthma, COPD and allied conditions	3.68%	4.55%
8	Cardiovascular Diseases	Ischaemic heart disease	3.05%	3.85%
9	Mental Disorders	Depression and other psychoses	2.64%	3.56%
10	Respiratory Diseases	Acute respiratory infections	1.43%	3.41%
11	Musculoskeletal Diseases and Injuries	Arthropathies and related disorders	8.40%	3.39%
12	Musculoskeletal Diseases and Injuries	Dorsopathies	2.07%	2.87%
13	Endocrine and Related Disorders	Disorders of Thyroid Gland	0.30%	2.83%
14	Skin and Related Diseases	Other inflammatory conditions of skin	1.75%	2.35%
15	Nervous system/Sense Organ Diseases	Migraine and other disorders of the central nervous systems	6.50%	1.75%
16	Musculoskeletal Diseases and Injuries	Rheumatism, excluding the back	1.06%	1.71%
17	Genitourinary Diseases	Other disorders of female genital tract	1.40%	1.70%
18	Nervous system/Sense Organ Diseases	Diseases of the ear and mastoid process	0.49%	1.52%
19	Injury and Poisoning	Sprains and strains of joints and adjacent muscles	0.56%	1.33%
20	Ill-defined Conditions	Ill-defined and unknown causes of morbidity and mortality	1.09%	1.21%
21	Genitourinary Diseases	Other diseases of urinary system	0.46%	1.05%
22	Cardiovascular Diseases	Other forms of heart disease	0.81%	1.00%
23	Respiratory Diseases	Other diseases of upper respiratory tract	0.49%	0.99%
24	Digestive Diseases	Non-infective enteritis and colitis	5.38%	0.98%
25	Skin and Related Diseases	Other diseases of skin	0.42%	0.89%
_	_	Total	86.42%	89.66%

Region 2 Top 25 Sub-Disease Categories (ordered by cost)

Sub-Disease Ranking	Disease Category	Sub-Disease Category	Estimated Occurrences (by Volume)	Estimated Occurrences (by Cost)
1	Mental Disorders	Neurotic disorders and other nonpsychotic mental disorders	9.67%	13.53%
2	Cardiovascular Diseases	Hypertensive disease	10.78%	11.30%
3	Endocrine and Related Disorders	Diabetes and other disorders of endocrine glands	7.46%	6.71%
4	Respiratory Diseases	Asthma, COPD and allied conditions	4.12%	5.86%
5	Digestive Diseases	Diseases of oesophagus,stomach and duodenum	8.02%	5.62%
6	Ill-defined Conditions	Symptoms	3.69%	4.82%
7	Endocrine and Related Disorders	Other metabolic disorders	8.50%	4.71%
8	Respiratory Diseases	Acute respiratory infections	1.82%	4.48%
9	Cardiovascular Diseases	Ischaemic heart disease	3.63%	3.60%
10	Musculoskeletal Diseases and Injuries	Arthropathies and related disorders	7.30%	3.36%
11	Musculoskeletal Diseases and Injuries	Dorsopathies	2.60%	3.30%
12	Endocrine and Related Disorders	Disorders of Thyroid Gland	0.34%	2.76%
13	Mental Disorders	Depression and other psychoses	2.91%	2.69%
14	Skin and Related Diseases	Other inflammatory conditions of skin	1.90%	2.11%
15	Nervous system/Sense Organ Diseases	Migraine and other disorders of the central nervous systems	7.30%	2.06%
16	Genitourinary Diseases	Other disorders of female genital tract	1.29%	1.83%
17	Nervous system/Sense Organ Diseases	Diseases of the ear and mastoid process	0.45%	1.63%
18	Musculoskeletal Diseases and Injuries	Rheumatism, excluding the back	1.25%	1.58%
19	Genitourinary Diseases	Other diseases of urinary system	0.59%	1.32%
20	Injury and Poisoning	Sprains and strains of joints and adjacent muscles	0.79%	1.30%
21	Ill-defined Conditions	Ill-defined and unknown causes of morbidity and mortality	1.23%	1.15%
22	Skin and Related Diseases	Other diseases of skin	0.76%	1.11%
23	Respiratory Diseases	Other diseases of upper respiratory tract	0.53%	0.93%
24	Cardiovascular Diseases	Other forms of heart disease	0.74%	0.90%
25	Digestive Diseases	Noninfective enteritis and colitis	3.67%	0.77%
_	_	Total	91.37%	89.43%

Region 3 Top 25 Sub-Disease Categories (ordered by cost)

Sub-Disease Ranking	Disease Category	Sub-Disease Category	Estimated Occurrences (by Volume)	Estimated Occurrences (by Cost)
1	Mental Disorders	Neurotic disorders and other nonpsychotic mental disorders	8.70%	11.50%
2	Digestive Diseases	Diseases of oesophagus,stomach and duodenum	9.24%	6.74%
3	Endocrine and Related Disorders	Diabetes and other disorders of endocrine glands	6.76%	6.54%
4	Endocrine and Related Disorders	Other metabolic disorders	11.12%	5.51%
5	Respiratory Diseases	Asthma, COPD and allied conditions	3.40%	4.89%
6	Ill-defined Conditions	Symptoms	4.17%	4.70%
7	Respiratory Diseases	Acute respiratory infections	1.63%	4.00%
8	Cardiovascular Diseases	Ischaemic heart disease	4.04%	3.92%
9	Musculoskeletal Diseases and Injuries	Arthropathies and related disorders	3.52%	3.43%
10	Endocrine and Related Disorders	Disorders of Thyroid Gland	0.40%	3.28%
11	Mental Disorders	Depression and other psychoses	3.01%	3.23%
12	Musculoskeletal Diseases and Injuries	Dorsopathies	2.50%	2.92%
13	Skin and Related Diseases	Other inflammatory conditions of skin	1.25%	2.02%
14	Nervous system/Sense Organ Diseases	Migraine and other disorders of the central nervous systems	5.84%	1.96%
15	Genitourinary Diseases	Other disorders of female genital tract	1.68%	1.86%
16	Musculoskeletal Diseases and Injuries	Rheumatism, excluding the back	1.19%	1.59%
17	Nervous system/Sense Organ Diseases	Diseases of the ear and mastoid process	0.40%	1.48%
18	Genitourinary Diseases	Other diseases of urinary system	0.73%	1.29%
19	Ill-defined Conditions	Ill-defined and unknown causes of morbidity and mortality	1.29%	1.25%
20	Injury and Poisoning	Sprains and strains of joints and adjacent muscles	0.61%	1.14%
21	Respiratory Diseases	Other diseases of upper respiratory tract	0.53%	1.09%
22	Cardiovascular Diseases	Other forms of heart disease	0.82%	1.04%
23	Skin and Related Diseases	Other diseases of skin	0.47%	0.78%
24	Infectious and Parasitic Diseases	Mycoses	0.35%	0.64%
25	Musculoskeletal Diseases and Injuries	Osteopathies and acquired musculoskeletal deformities	0.78%	0.62%
_	_	Total	74.43%	77.42%

Region 4 Top 25 Sub-Disease Categories (ordered by cost)

Sub-Disease Ranking	Disease Category	Sub-Disease Category	Estimated Occurrences (by Volume)	Estimated Occurrences (by Cost)
1	Mental Disorders	Neurotic disorders and other nonpsychotic mental disorders	11.77%	15.29%
2	Cardiovascular Diseases	Hypertensive disease	10.62%	9.71%
3	Ill-defined Conditions	Symptoms	4.96%	7.07%
4	Endocrine and Related Disorders	Other metabolic disorders	13.98%	6.01%
5	Digestive Diseases	Diseases of oesophagus,stomach and duodenum	8.11%	5.74%
6	Respiratory Diseases	Asthma, COPD and allied conditions	5.15%	5.26%
7	Respiratory Diseases	Acute respiratory infections	2.10%	3.97%
8	Cardiovascular Diseases	Ischaemic heart disease	4.44%	3.96%
9	Endocrine and Related Disorders	Diabetes and other disorders of endocrine glands	5.34%	3.76%
10	Mental Disorders	Depression and other psychoses	4.08%	3.52%
11	Musculoskeletal Diseases and Injuries	Dorsopathies	2.36%	3.22%
12	Musculoskeletal Diseases and Injuries	Arthropathies and related disorders	3.65%	3.04%
13	Endocrine and Related Disorders	Disorders of Thyroid Gland	0.38%	2.76%
14	Skin and Related Diseases	Other inflammatory conditions of skin	1.72%	2.41%
15	Musculoskeletal Diseases and Injuries	Rheumatism, excluding the back	1.17%	1.94%
16	Injury and Poisoning	Sprains and strains of joints and adjacent muscles	0.72%	1.80%
17	Genitourinary Diseases	Other disorders of female genital tract	1.47%	1.76%
18	Nervous system/Sense Organ Diseases	Diseases of the ear and mastoid process	0.69%	1.75%
19	Nervous system/Sense Organ Diseases	Migraine and other disorders of the central nervous systems	2.59%	1.32%
20	Ill-defined Conditions	Ill-defined and unknown causes of morbidity and mortality	1.43%	1.32%
21	Genitourinary Diseases	Other diseases of urinary system	0.53%	1.10%
22	Cardiovascular Diseases	Other forms of heart disease	0.79%	1.03%
23	Skin and Related Diseases	Other diseases of skin	0.52%	0.86%
24	Infectious and Parasitic Diseases	Mycoses	0.45%	0.78%
25	Respiratory Diseases	Other diseases of upper respiratory tract	0.47%	0.76%
		Total	89.48%	90.14%

Region 5 Top 25 Sub-Disease Categories (ordered by cost)

Sub-Disease Ranking	Disease Category	Sub-Disease Category	Estimated Occurrences (by Volume)	Estimated Occurrences (by Cost)
1	Mental Disorders	Neurotic disorders and other nonpsychotic mental disorders	11.04%	16.19%
2	Cardiovascular Diseases	Hypertensive disease	8.76%	11.69%
3	Ill-defined Conditions	Symptoms	3.91%	6.60%
4	Endocrine and Related Disorders	Other metabolic disorders	9.21%	5.42%
5	Digestive Diseases	Diseases of oesophagus,stomach and duodenum	6.75%	5.30%
6	Respiratory Diseases	Asthma, COPD and allied conditions	3.70%	4.93%
7	Endocrine and Related Disorders	Diabetes and other disorders of endocrine glands	4.69%	4.64%
8	Mental Disorders	Depression and other psychoses	3.04%	4.54%
9	Cardiovascular Diseases	Ischaemic heart disease	3.03%	3.59%
10	Musculoskeletal Diseases and Injuries	Arthropathies and related disorders	10.46%	3.54%
11	Musculoskeletal Diseases and Injuries	Dorsopathies	3.17%	3.51%
12	Endocrine and Related Disorders	Disorders of Thyroid Gland	0.39%	3.34%
13	Respiratory Diseases	Acute respiratory infections	1.25%	2.88%
14	Genitourinary Diseases	Other disorders of female genital tract	2.30%	2.51%
15	Musculoskeletal Diseases and Injuries	Rheumatism, excluding the back	1.29%	1.88%
16	Injury and Poisoning	Sprains and strains of joints and adjacent muscles	0.89%	1.62%
17	Nervous system/Sense Organ Diseases	Migraine and other disorders of the central nervous systems	2.63%	1.38%
18	Ill-defined Conditions	Ill-defined and unknown causes of morbidity and mortality	1.21%	1.26%
19	Nervous system/Sense Organ Diseases	Diseases of the ear and mastoid process	0.37%	1.18%
20	Skin and Related Diseases	Other inflammatory conditions of skin	1.42%	1.05%
21	Musculoskeletal Diseases and Injuries	Osteopathies and acquired musculoskeletal deformities	1.05%	0.97%
22	Cardiovascular Diseases	Other forms of heart disease	0.75%	0.88%
23	Digestive Diseases	Noninfective enteritis and colitis	7.34%	0.86%
24	Respiratory Diseases	Other diseases of upper respiratory tract	0.38%	0.77%
25	Skin and Related Diseases	Other diseases of skin	0.53%	0.75%
		Total	89.48%	90.14%

Region 6 Top 25 Sub-Disease Categories (ordered by cost)

Sub-Disease Ranking	Disease Category	Sub-Disease Category	Estimated Occurrences (by Volume)	Estimated Occurrences (by Cost)
1	Mental Disorders	Neurotic disorders and other nonpsychotic mental disorders	10.61%	13.56%
2	Cardiovascular Diseases	Hypertensive disease	12.52%	11.84%
3	Digestive Diseases	Diseases of oesophagus,stomach and duodenum	8.81%	6.08%
4	Endocrine and Related Disorders	Other metabolic disorders	11.31%	5.60%
5	Genitourinary Diseases	Other disorders of female genital tract	4.76%	4.93%
6	Endocrine and Related Disorders	Disorders of Thyroid Gland	0.64%	4.82%
7	Ill-defined Conditions	Symptoms	3.50%	4.78%
8	Endocrine and Related Disorders	Diabetes and other disorders of endocrine glands	4.78%	4.30%
9	Respiratory Diseases	Asthma, COPD and allied conditions	3.46%	3.81%
10	Cardiovascular Diseases	Ischaemic heart disease	3.33%	3.77%
11	Musculoskeletal Diseases and Injuries	Arthropathies and related disorders	7.06%	3.76%
12	Respiratory Diseases	Acute respiratory infections	1.74%	3.65%
13	Mental Disorders	Depression and other psychoses	3.55%	3.61%
14	Musculoskeletal Diseases and Injuries	Dorsopathies	1.68%	2.35%
15	Skin and Related Diseases	Other inflammatory conditions of skin	2.07%	2.23%
16	Musculoskeletal Diseases and Injuries	Rheumatism, excluding the back	1.00%	1.51%
17	Nervous system/Sense Organ Diseases	Diseases of the ear and mastoid process	0.53%	1.42%
18	Injury and Poisoning	Sprains and strains of joints and adjacent muscles	0.77%	1.32%
19	Ill-defined Conditions	Ill-defined and unknown causes of morbidity and mortality	1.34%	1.24%
20	Digestive Diseases	Noninfective enteritis and colitis	4.10%	1.15%
21	Nervous system/Sense Organ Diseases	Migraine and other disorders of the central nervous systems	1.42%	1.08%
22	Respiratory Diseases	Other diseases of upper respiratory tract	0.63%	1.02%
23	Genitourinary Diseases	Other diseases of urinary system	0.64%	1.00%
24	Infectious and Parasitic Diseases	Intestinal Infectious Diseases	1.12%	0.89%
25	Cardiovascular Diseases	Other forms of heart disease	0.67%	0.74%
		Total	92.05%	90.46%

Region 7 Top 25 Sub-Disease Categories (ordered by cost)

Sub-Disease Ranking	Disease Category	Sub-Disease Category	Estimated Occurrences (by Volume)	Estimated Occurrences (by Cost)
1	Cardiovascular Diseases	Hypertensive disease	12.40%	13.95%
2	Mental Disorders	Neurotic disorders and other nonpsychotic mental disorders	10.90%	11.41%
3	Digestive Diseases	Diseases of oesophagus,stomach and duodenum	10.29%	6.92%
4	Endocrine and Related Disorders	Diabetes and other disorders of endocrine glands	7.43%	6.54%
5	Endocrine and Related Disorders	Other metabolic disorders	10.13%	6.01%
6	Respiratory Diseases	Acute respiratory infections	2.08%	4.84%
7	Ill-defined Conditions	Symptoms	3.48%	4.69%
8	Respiratory Diseases	Asthma, COPD and allied conditions	2.89%	4.25%
9	Cardiovascular Diseases	Ischaemic heart disease	3.67%	3.71%
10	Mental Disorders	Depression and other psychoses	4.64%	3.48%
11	Musculoskeletal Diseases and Injuries	Arthropathies and related disorders	1.87%	3.13%
12	Musculoskeletal Diseases and Injuries	Dorsopathies	1.11%	2.81%
13	Endocrine and Related Disorders	Disorders of Thyroid Gland	0.28%	2.73%
14	Skin and Related Diseases	Other inflammatory conditions of skin	7.52%	2.54%
15	Nervous system/Sense Organ Diseases	Diseases of the ear and mastoid process	0.53%	1.81%
16	Genitourinary Diseases	Other disorders of female genital tract	1.52%	1.80%
17	Musculoskeletal Diseases and Injuries	Rheumatism, excluding the back	0.81%	1.58%
18	Genitourinary Diseases	Other diseases of urinary system	0.52%	1.48%
19	Nervous system/Sense Organ Diseases	Migraine and other disorders of the central nervous systems	2.18%	1.38%
20	Injury and Poisoning	Sprains and strains of joints and adjacent muscles	0.50%	1.20%
21	Ill-defined Conditions	Ill-defined and unknown causes of morbidity and mortality	1.26%	1.16%
22	Cardiovascular Diseases	Other forms of heart disease	0.64%	0.91%
23	Respiratory Diseases	Other diseases of upper respiratory tract	0.90%	0.87%
24	Infectious and Parasitic Diseases	Mycoses	0.48%	0.83%
25	Infectious and Parasitic Diseases	Intestinal Infectious Diseases	0.65%	0.60%
		Total	88.69%	90.63%

Appendix B – Drug Disease Category Glossary

Disease Category	Description
Birth Defects	*Congenital anomalies* during fetal development.
	Examples: spina bifida, cleft palate and lip, musculoskeletal deformities, dextrocardia.
Blood Diseases	Disease, illness and symptoms involving blood and blood forming organs.
	Example: anemia, sickle-cell anemia, coagulation defects, iron deficiency disorder, pregnancy induce anemia, disease of white blood cells.
Cancer	Disease, illness and symptoms related to neoplasm.
	Examples: Includes all sites and forms of cancer, tumors, and neoplasm.
Cardiovascular Diseases	Diseases, illness and symptoms involving the cardiovascular and circulatory system.
	Examples: rheumatic fever, hypertension, heart disease, stroke, cholesterol, arteriosclerotic cardiovascular disease, cardiovascular arteriosclerosis, coronary artery disease, abnormal heart rhythms, heart failure, heart muscle disease, aorta disease, pericardial disease, vascular disease and varicose veins.
Digestive Diseases	Disease, illness and symptoms involving the oral cavity, stomach, and gastro-intestinal tract.
	Examples: disorder of tooth development, dental related, appendicitis, hernia, liver and biliary tract disease and disorders, constipation, cirrhosis, ulcers, gastro esophageal reflux, diverticular disease, heartburn, irritable bowel syndrome, Chrohn's disease, ulcers and H.hylori, gallstones, celiac disease, anal fissure. As well includes all forms of functional digestive disorders, ulcers and esophagitis. Some digestive cases may be hard to distinguish from stress.
Endocrine and Related Disorders	Disease, illness and symptoms related to endocrine, nutritional, metabolic and immunity disturbances, deficiencies and disorders.
	Examples: diabetes, thyroid, metabolic disorders, deficiencies (calcium, potassium, vitamin), endometriosis, hyperthyrodism, infertility, ovarian and testicular dysfunction, disorders of the thyroid gland, including hypo/hyper thyroidism, pancreatic disorders, adrenal gland disorders, under-nutrition, obesity.
Genitourinary Diseases	Diseases and illness and symptoms related to the kidney, urinary system, male and female genital tract.
	Examples: acute renal failure, infections of kidney, disorders of bladder, disease of prostate, infertility, disorder of breast, disease of female pelvic organs, endometriosis, ovary cyst.
Ill defined conditions	General symptoms, signs and ill defined conditions.
	Examples: hallucinations, convulsions, seizures, dizziness, sleep disturbance, sleep apnea, fatigue, sweating, memory loss, excessive infant crying, abnormal involuntary movement, abnormal posture, anorexia, diarrhea, colic, nonspecific findings, sudden infant death syndrome.
Infectious Diseases	Diseases and illness generally recognized as communicable or transmissible as well as a few diseases of unknown but possibly infectious origin.
	Examples: intestinal disorders, sexually transmitted diseases, fungal infections, bacterial infections, lupus, acne, cold sores,

Disease Category	Description
	skin infections, shingles, TB, HIV, other herpes virus, Intestinal infections, including poisoning, Zoonotic bacterial diseases, other bacterial diseases, including diphtheria, Meningococcal infection, leprocy, urinary tract infections.
Injury and poisoning	illness and symptoms relating to injury and poisoning from external causes
	Examples: repetitive strain injury, fractures, dislocation, strains and sprains of joints and muscles, open wounds, contusions, crushing injuries, toxic effects from poisoning, burns, motion sickness, drowning, drug allergy.
Mental Disorders	Psychiatric illness or diseases manifested by breakdowns in the adaptation process expressed primarily as abnormalities of thought, feeling, and behavior producing either distress or impairment of function.
	Examples: mood disorders, stress related, psychiatric, depression, anxiety disorders, psychotic disorders, schizophrenic disorders, insomnia, eating disorders, impulse and addictions disorders, personality disorders, adjustment disorders, sexual or gender disorders, mental retardation, erectile dysfunction.
Musculoskeletal Diseases and Injuries	Disease, illness and symptoms relating to the skeletal, muscle, ligaments and connective tissues
	Examples: rheumatoid arthritis, osteoarthrosis, connective tissue disease, derangement of joint, knee, joint pain, lumbar disc displacement, degenerative disc disease, sciatica, backache, bunion, muscular wasting, muscle spasm, muscle weakness, osteoporosis, unequal leg length.
Nervous System/Sense Organ Diseases	Nervous system disease, illness and symptoms relating to the central and peripheral nervous system, and other headache syndromes.
	Examples: meningitis, encephalitis, cerebral palsy, cerebral degenerations, Alzheimer's, multiple sclerosis, Parkinson's disease, epilepsy, nerve pains, chronic pain, chronic headaches, tension type headaches, post-traumatic headaches, migraines, fibromyalgia, carpel tunnel syndrome.
	Sense organ Illness and symptoms related to the eyes, visual disorders, ears and mastoid process.
	Examples related to the eyes: visual disturbances, refraction disorders (farsightedness, nearsightedness, astigmatism, presbyopia), colour vision deficiencies, night blindness, visual loss, glaucoma, cataract, ocular hypertension, ophthalmic disorders, retinal detachments and defects, diabetic retinopathy, dry eyes, eyelid infection, red eye. *Examples diseases of the ear and mrelated to the ears: disorders of the external ear, swimmers' ear, rupture of ear drum, hearing loss, deafness.*
Perinatal Conditions	Conditions originating in the perinatal period.
	Examples: fetal alcohol syndrome, fetal malnutrition, preterm infant, exceptionally large baby, perinatal jaundice, newborn, feeding problems and other perinatal morbidity and mortality.
Pregnancy	Disease, illness and symptoms related to pregnancy, childbirth and the puerperium.
	Examples: pregnancy complications, ectopic pregnancy, spontaneous abortions, placenta previa, eclampsia, premature labor, prolonged pregnancy, normal delivery, multiple gestation, twins, triplets, obstructed labor, postpartum related, abscess of breast, mastitis.

Disease Category	Description
Respiratory Diseases	Disease, illness and symptoms involving the respiratory tract and lung.
	Examples: common cold, croup, hay fever, pulmonary disease, coughs associated with influenza, bronchitis, asthma, laryngitis emphysema, acute sinusitis, symptoms of throat and bronchial irritations. As well as upper respiratory infections, viral infections, viral pneumonia, and influenza, etc.
Skin and Related Diseases	Disease, illness and symptoms involving skin conditions and subcutaneous tissue.
	Examples: minor dermatologic conditions including , itch of skin, scalp, and skin, eczema, psoriasis diaper rash, chafed skin, abrasions, and minor burns, seborrheic dermatitis of the body and scalp, psoriasis of the body and scalp, dandruff, and other scaling dermatoses, rosacea, ingrown nail, keratosis, acne, scars.

Employee Health and Wellness Survey Results 2010

New Brunswick Association of Nursing Homes

August, 2010

Presented by:

The Shepell•fgi Research and Health Consulting Group

Table of Contents

Executive Summary

New Brunswick Association of Nursing Homes, in conjunction with its Employee Benefits Committee, has embarked on an initiative that will bring a wellness program to its sector. This initiative involves creating a strategic framework to support and measure the health and wellness of employees. Wellness embraces employees' social, physical, occupational and emotional health.

One of the key components of this initiative is this Health Needs Assessment Survey, which was designed to help identify leading employee wellbeing issues and concerns so that appropriate and supportive programs and services can be offered, with the ultimate objective of improving both health and organizational outcomes. In order to do that, this survey assessed:

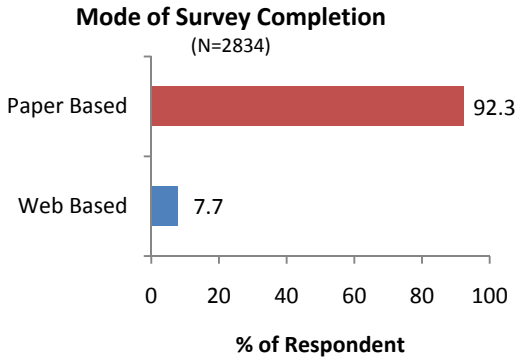
- overall health and wellbeing
- current health conditions and preventative care
- health at work
- healthy lifestyles
- feedback on health and wellbeing program interests

All NBANH employees were communicated to in advance of the survey through designated and trained 'Onsite Representatives' for each nursing home. Subsequently an Onsite Representative provided each employee was with a paper copy of the survey, which also included web log-in instructions. Each employee was invited to complete the 2010 Health & Wellness Survey in his/her preferred modality and language.

Employees were incented to do so by becoming eligible for a draw of a number of gift certificates, at their discretion, upon completing the survey, through a randomly generated ballot. In each region, draws took place following the survey closure.

Response Rate

A total of **2,834** of 5,645 employees responded to the request to complete the Employee Health & Wellness Survey-- a response rate of **50.1%.** **92.7%** responded by submitting a **paper** survey and **7.3%** responded through the **web** application.

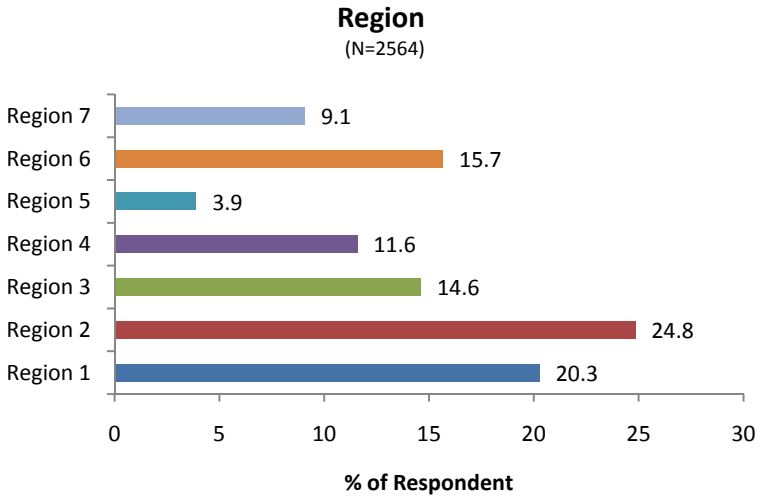


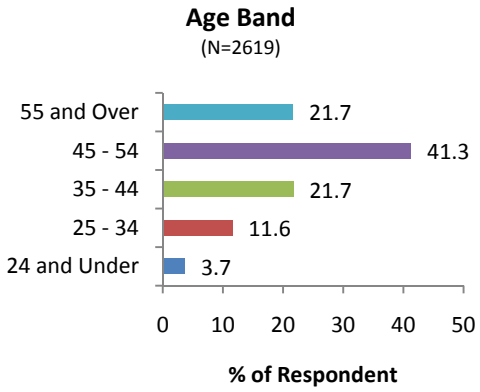
Respondent Profile

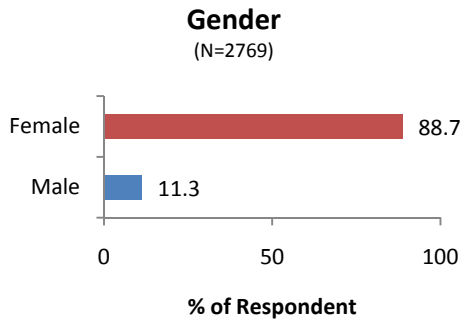
This information should be compared with the demographic profile of the organization as a whole. It should also be used to provide a context for response patterns for different demographic groups.

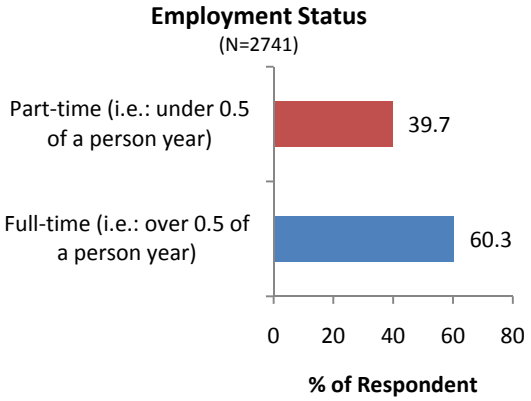
Highlights of Respondent Profile:

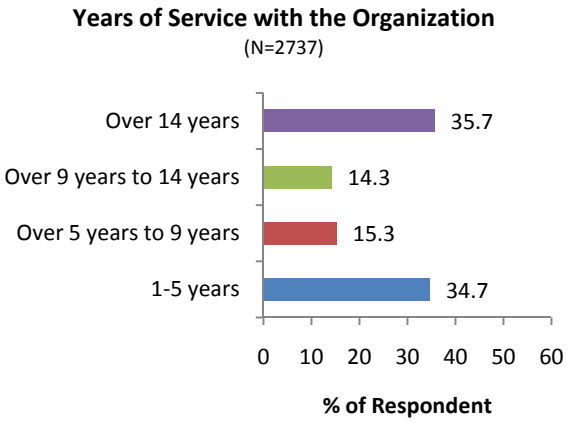
- **88.7%** of respondents are female
- **63%** are over the age of 45 years
- **24.8%** are from Region 2
- **60.3%** are full time employees
- **35.7%** have been with the organization over 14 years
- **56.3%** are shift workers
- **50.9%** work as care staff
- **63.9%** completed the survey in English

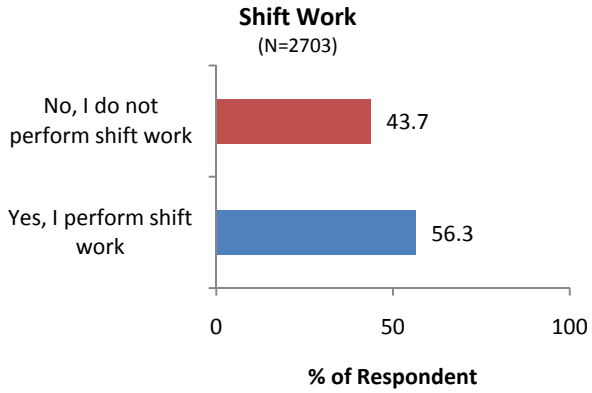


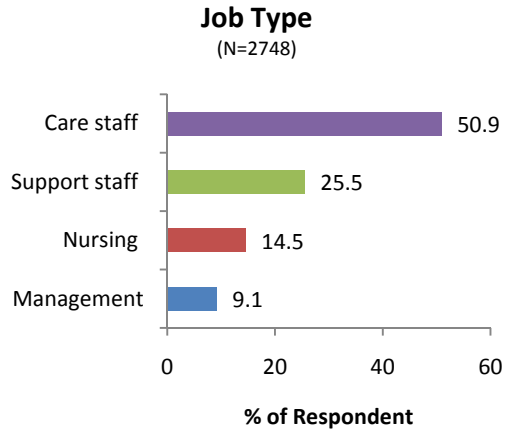


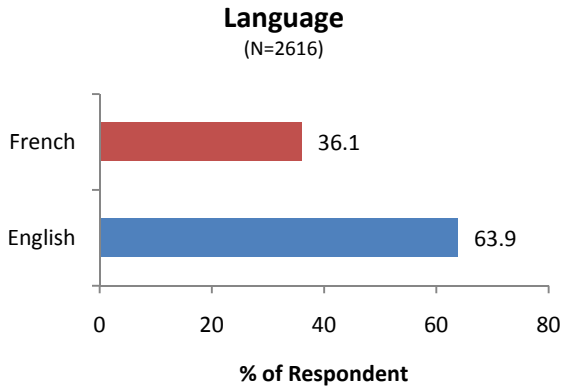












Overall Health and Wellbeing

Self-reported general health status and mental health status were also assessed as overall indicators of health. Based on a 5-point scale from 'poor' to 'excellent, participants rated their general health and general mental health' accordingly:

- **42.4%** rate their general health as 'very good' or 'excellent', whereas almost **10.6%** rate it as 'fair' or 'poor'
- **14.5%** report that their general health is 'somewhat' or 'much' worse than one year ago
- **52.6%** rate their general mental health as 'very good' or 'excellent', whereas **8.8%** rate it as 'fair' or 'poor'
- Almost **10%** report that their general mental health is 'somewhat' or 'much' worse than one year ago
- **14.1%** indicate that theirs general health is worse than it was 1 year ago

Preventative Care & Health Conditions

Participants were asked about their previous medical consultations, preventative screenings and existing medical problems. The findings indicate that there is room for the promotion of preventative health care, with respondents not having received the following tests in the past 12 months:

- **22.4%** have not had a check up by a medical professional
- **14.9%** have not had their blood pressure checked
- **32.7%** have not had their blood cholesterol checked, and **11.4%** have never done so
- **30.1%** have not had their blood sugar checked, and **9%** have never done so

Further, **51.2%** have **never** talked with their health care professional about their recommended cancer screening tests.

The leading chronic health conditions reported by respondents include:

- High blood pressure (32.5%)
- Back problems (28.5%)
- Arthritis (26.8%)
- High blood cholesterol (24.8%)
- Migraine headaches (23.2%)
- Asthma (22%)

Health at Work

Participants were also asked to assess their health and wellness at work. The results mapped onto **6 Health at Work Scales**, with the following average scores (1 being the lowest and 5 being the highest):

- Meaningful Work: 4.48
- Organizational Health and Safety Commitment: 3.68

- Work-Life Balance: 3.46
- Satisfaction with Supervisor: 3.44
- Organizational Satisfaction: 3.43
- Job Quality: 3.16

Stress levels at work were also measured using the **Stress Satisfaction Offset Score (SSOS).** The Stress and Satisfaction Offset Score (SS0S) was developed as a brief survey to provide a "first pass" assessment of risks to mental and physical health associated with the key conditions of work, namely, demand, control, effort and reward. It is a four item inventory that gathers individual employee's perceptions of the amount of demand, control, effort and reward in their particular work situation. Markers for demand and effort are stress indicators, and markers of control and reward are satisfaction indicators. The findings reveal that NBANH's overall SSOS score is **0.23**, indicating that, overall, NBANH requires some support to improve organizational health.

In addition, participants were also asked about the impact of their work on their health, by selecting an answer from a range of responses from "strongly disagree" to "strongly agree". The findings indicate that:

- **25.6%** agree / strongly agree that their physical health is negatively affected by work
- **23.9%** agree / strongly agree that their mental health is negatively affected by work
- **24.5%** agree / strongly agree that their health and safety is at risk because of work

Participants also reported various **health issues that they are experiencing that they believe are related to their work**. Among the top work-related health issues at NBANH, respondents reported experiencing the following issues at some point due to their work (either "all the time", "often", or "sometimes"):

- **75.4%** experience work-related fatigue
- **72.2%** experience work-related muscle pain
- **67%** experience work-related backache
- **62.8%** experience work-related stress / anxiety
- **54.7%** experience work-related headaches

Finally, in this section, participants were also asked to self-report the number of days they were absent from work in the past 4 weeks due to "personal illness" or "other" reasons, in addition to the extent to which physical and mental health problems resulted in a decline in contributions to work and life over the past 4 weeks. These questions helped glean valuable health-related absence and productivity data for NBANH:

- The average annual self-reported absence rate for NBANH is **21.16 days**[1]
- **40.1%** of respondents indicated they **accomplished less at work** in the past 4 weeks due to **emotional problems**
- **48.9%** of respondents indicated they **accomplished less at work** in the past 4 weeks due t**o physical problems**

[1] Absenteeism was reported for the last 4 works and annualized to reflect a 12-month absenteeism rate.

Healthy Lifestyle

The overall risk profile of the participants was determined through 13 self-reported risk factors, using established risk guidelines. The following risk profile was established for NBANH:

- **14.0% are at high risk** (5+ risk factors)
- **32.2% are at medium risk** (3-4 risk factors)
- **53.8% are at low risk** (0-2 risk factors).

Key lifestyle risk factors were specifically assessed, indicating that **weight** and **physical activity** are leading risk factors among respondents from NBANH.

RISK FACTORS	Low Risk %	Medium Risk %	High Risk %
Body Mass Index (weight)	34.50%	32.70%	32.80%
Healthy Eating	31.10%	50.60%	18.20%
Physical Activity	55.80%	12.70%	31.60%
Smoking	73.90%	4.20%	22.00%
Alcohol Consumption	80.10%	N/A	19.90%
Stress	33.70%	48.60%	17.60%
Sleep	56.90%	34.50%	4.70%

Health and Wellness Program Interests & Participation

Participants were asked to select the **5 topics** in which they were most interested to receive information and support as a part of the NBANH Wellness Program. Participants were also asked about their likelihood of participating in various programs. The findings indicate:

- The top 5 top topics of interest are:
  - Stress management
  - Weight management
  - Physical activity
  - Healthy eating
  - Backache/Ergonomics

- Participants report that they are most likely to participate in:
  - Health related competitions, challenges
  - Fitness classes
  - Confidential health screening by a nurse
  - Weight management program

Financial Considerations

There were three main components of cost that were included on the survey that can be considered to determine the ROI of the NBANH Wellness Program over time: self-reported health risk assessment, self-reported sickness absence, and self-reported health impact on productivity.

Using calculated risk levels, and self reported absence and productivity impact values, the findings clearly demonstrate that absenteeism increases and productivity decreases as the number of health risks rise. Using average NBANH salary rates, we can demonstrate that increasing health risks costs NBANH more every year in terms of absence and productivity.

Low Risk (0-2 risk factors)	Abs = 20.16 days Productivity Loss due to Physical Health = 14% Productivity Loss due to Mental Health = 12%	20.16 x $175.4 = $3536 45,594.7 x 0.14 = $6383.30 45,594.7 x 12% = $5471.40
Medium Risk (3-4 risk factors)	Abs = 21.86 days Productivity Loss due to Physical Health = 19.8% Productivity Loss due to Mental Health = 17.3%	21.86 x $175.4 = $3834.20 45,594.7x 0.198 = $9027.80 45,594.7 x 17.3% = $7887.90
High Risk (5+ risk factors)	Abs = 25.56 days Productivity Loss due to Physical Health = 28.8% Productivity Loss due to Mental Health =28.3%	25.56 x $175.4 = $4483.20 45,594.7 x 0.288 = $13,131.30 45,594.7 x 28.3%= $12,903.30
Calculations: Cost of Low Risk employees = **$15,390.70** Cost of Medium Risk employees = **$20,749.90** Cost of High Risk employees = **$30,517.80**		

Regional Snapshot

Region 1

Region 1 reports the **greatest proportion of employees reporting 'poor' or 'fair' general health (12.7%).** In terms of medical consultations, **24.7%** of respondents in this region have not had an annual physical/check up in the past 12 months. Moreover, **17.21%** of respondents have not had their blood pressure checked in the past 12 month

and almost half the respondents have not had their cholesterol checked by a health professional in the past 12 months.

Participants from the nursing homes making up Region 1 scored **lower than average on all 6 health and wellness at work scales**. This indicates that, in general, respondents from this region are less satisfied than the other NBANH employees with their organization, supervisors, organizational health and safety commitment, job quality, and work-life balance. What is more, participants from this region had a considerable proportion of respondents (30.3%) indicating a negative Stress and Satisfaction Offset Scores. In addition, this region also had the second highest proportion of respondents reporting that their physical health is negatively impacted by work (31.31%), that their mental health is negatively impacted by work (26.72%), as well as the fact their health and safety is at risk because of work (27.45%).

When asked about their likelihood to participate in wellness activities, region 1 respondents (65.7%) are most likely to participate in fitness classes.

Region 2

Region 2 has the **highest proportion of high risk individuals, 16.2%**, which is above the NBANH norm. Region 2 also reports the greatest **proportion of employees reporting 'poor' or 'fair' general mental health (10.9%)**. In terms of medical consultations, almost half the respondents from Regions 2 have not had their cholesterol checked by a health professional in the past 12 months. Region 2 also had the highest percentage of respondents with arthritis (29.51%).

Respondents from this region had the second highest percentage of participants with medium weight risk factor (34.1%). In addition, 18.8% of respondents from this region are at high risk in their eating habits. Moreover, in this region there was the **highest percentage of everyday smokers (24.8%)** and **24.5% of respondents are at high risk in their alcohol consumption**. Finally, 7.7% of respondents are at high risk because of poor sleeping quality.

In terms of satisfaction and stress at work, respondents from this region had the **highest percentage of negative Stress and Satisfaction Offset Scores (30.3%),** indicating that their stress is **not** being offset by their satisfaction. In addition, the **highest proportions of respondents reporting that their mental health is negatively impacted by work** are in Region 2 (28.07%).

When asked about their likelihood to participate in wellness activities, Region 2 respondents (68.6%) are most likely to participate in weight management programs

Region 3

Region 3 has the **second highest proportion of high risk individuals, 15.2%,** which is above the NBANH norm. Almost half the respondents from Regions 3 have not had their cholesterol checked by a health professional in the past 12 months and 42.78% have not had the blood sugar tested--a higher proportion of respondents in comparison to the norm at NBANH overall.

Region 3 had the second highest percentage (37.9%) of participants with high weight risk factor and 18.4% are at **high risk due to their eating habits**. This region also has the **highest percentage of everyday smokers (24.4%).** About 6% of participants are at high risk because of poor sleeping quality.

When asked about their likelihood to participate in wellness activities, Region 3 respondents (73.4%) are most likely to participate in fitness classes.

Region 4

Region 4 has the **lowest proportion at high risk individuals (11.1%),** below the overall NBANH norm. In terms of medical consultations, 27.2% of respondents have not had an annual physical/check up in the past 12 months, 21.43% of respondents have not had their blood pressure checked in the past 12 months, almost half the respondents have not had their cholesterol checked in the past 12 months, and 45.42% have not had the blood sugar tested--a higher proportion of respondents in comparison to the norm at NBANH overall. Moreover, 53.7% of respondents have never spoken with their health care professional about their recommended cancer screening tests. Region 4 had the **highest percentage of participants experiencing stress/anxiety (69.6%).**

Region 4 participants had the **second highest average number of days absent (26.6 days)** from work. 50.8% of Region 4 respondents are at medium risk in their eating habits and **36.9% are at high risk due to a lack of physical activity**. The **highest percentage of participants who are at high risk due to overall stress** can also be found in Region 4 (24.6%).

Region 4 participants expressed the highest interest of all regions in stress management (50.5%) and work-family balance (35%). Region 4 respondents (61.1%) are most likely to participate in stress management programs.

Region 5

When asked about medical consultations, 60.6% of respondents in Region 5 have never spoken with their health care professional about their recommended cancer screening tests. **Region 5 had the highest percentage of participants experiencing muscle pain (87.9%), fatigue (75.8%), backache (68%) and sleeping problems (63.6%).** Region 5 had the highest percentage of participants with medium weight risk factor (36.5%), and 51% of Region 5 participants are at medium risk in their eating habits. 22% of Region 5 respondents are at high risk in their alcohol consumption and **21% (highest percentage of all regions) of respondents in this region are at high risk due to overall stress**.

Region 5 also has **the highest proportions of respondents (33.67%) reporting that their physical health is negatively impacted by work,** in addition to the **highest proportion of respondents reporting that their health and safety is at risk because of work (32.99%).** Region 5 participants had the third highest average number of days absent (24.4 days) from work.

Region 5 respondents expressed the highest interest of all regions in physical activity (49%), healthy eating (47%) and back care/ergonomics (38%). Region 5 respondents (76.3%) are most likely to participate in stress management programs

Region 6

Region 6 has the **highest proportion of employees with high risk for physical activity (38.2%).** However, it has the one of the lowest proportion of employees at high risk for stress (13.9%) and sleep (2.2%). In this region, the proportion at high risk status overall is marginally lower than the norm at NABNH (13.7% for Region 6 vs. 14.0% for NBANH overall). However, **22.7% of respondents in this region have not have an annual checkup in the last year**.

Region 6 scored **higher than the NBANH average on all 6 Health at Work scales**, indicating that the **employees in this region are highly satisfied with their supervisor, organization, health and safety commitment, job quality, work-life balance and they derive meaning from work**. Region 6 respondents (49.9%) had the highest proportion of positive Stress and Satisfaction Offset Scores, indicating either that there is little job stress, or that job satisfaction is offsetting their job stress. However, Region 6 participants also had the **highest average number of days absent (27.6 days)** from work (for both personal illness and other reasons). 38.2% of respondents from Region 6 are at high risk due to a lack of physical activity.

When asked about their likelihood to participate in wellness activities, Region 6 respondents (61%) are most likely to participate in fitness classes.

Region 7

When asked about medical consultations, 54.5% in Region 7 have never spoken with their health care professional about their recommended cancer screening tests. Region 7 participants have the **highest percentage of high blood pressure (37.34%), high cholesterol (27.04%), and migraines (27.9%).** Region 7 had the **highest percentage of participants with high weight risk factor (41.6%).**

Participants from this region **scored higher than the NBANH average on 5 of 6 Health at Work scales** (the scale for which they scored lower – meaningful work – was close to the average), indicating that in general **participants are satisfied with their supervisor, organization, organizational health and safety commitment, job quality and work-life balance**. Region 7 also had the **second highest proportion of positive Stress and Satisfaction Offset Scores** (48.9%), indicating either that there is little job stress, or that job satisfaction is offsetting their job stress.

When asked about their likelihood to participate in wellness activities, Region 7 respondents (72.9%) are most likely to participate in fitness classes

Report Format

Due to the considerable amount of data collected through NBANH's 2010 Health & Wellness Survey, the data has been presented with a focus on how it will be used to take action. Accordingly, the NBANH wide findings and cuts by the 7 regions can be found within the main body of the report, as this is the data that will inform action. Please see Appendix F for a list of the nursing homes by region.

Demographical findings have been presented in the appendix of this report, as their main propose is to provide clarification and insight to the broader, actionable findings. Cuts include:

- Age
- Job type
- Tenure
- Employee Status
- Shiftwork

Conclusion

Many studies have reported that worksite health promotion programs can be effective in improving employee health risks. Further, when improvements in health risks are made, research has also shown a corresponding decrease in health related costs and increased employee productivity.

One of the foundational tenets of the field of corporate wellness is that it is clearly better to prevent health problems than to treat them later on. When done effectively, health promotion has demonstrated a successful history of both improving health and providing a significant return. For well over a decade, research has been showing the effectiveness of Workplace Wellness Programs. For every dollar spent on Workplace Wellness Programs, the returns have been cost savings of between $2.30 and $10.10 in the areas of decreased rates of absence, fewer sick days, decreased WSIB/WCB claims, lowered health and insurance costs, and improvements to employee performance and productivity.

The findings herein provide insight as to how NBANH can plan and implement a wellness program that supports employee needs and interests, and also generates improved health and business outcomes.

Overall Health and Wellbeing

Overall health and wellbeing was assessed by:

- calculating the overall number of risk factors reported
- considering self perceived general health and mental health status
- calculating an overall mental health and vitality score

Overall Risk Profile

There is much evidence-based research that confirms those individuals with higher health risk (including both biometric risk and health risk behaviours) have been associated with higher costs compared with those with at lower risk. This trend extends over all health benefits. Research maintains that health promotion efforts in the workplace have a positive impact on health behaviours and health status, and thus on health benefit costs.

By calculating health risks among your population, you will be able to identify the proportion of employees that are in low, medium and high risk categories. You can then track health risk status or track health changes over time to observe both health and cost outcomes.

Participants' overall risk profile was determined using the following 13 self-reported risk factors and high risk criteria[2]:

	RISK FACTORS	HIGH RISK CRITERIA
1.	Smoking	Current every day smoker
2.	Alcohol Consumption	>1 drink/day and >9 drinks per week for women AND >2 drinks/day and >14 per week for men
3.	Physical Activity	Composite score of # of days, # of minutes and level of intensity
4.	Stress	Amount of stress in life or job is 'quite a bit' or 'extremely stressful'
5.	Body Mass Index	<=18.5 kg/m^2 or >= 30 kg/m^2
6.	Healthy Eating	11 point scale, average score indicates 'never' or 'rarely' engage in healthy eating behaviours
7.	Sleep	Composite 3 question score, high risk is 'most' or 'all of the time' have poor sleep
8.	Perception of physical health	Fair or Poor
9.	Perception of mental health	Fair or Poor

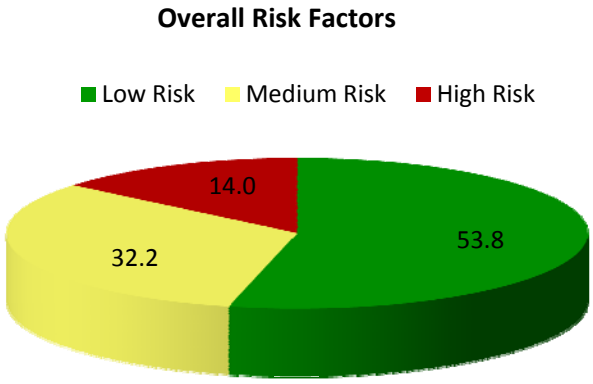
[2] Health risk calculations are based on guidelines for what is considered 'at risk'. At-risk classification is determined by using the most suitable guidelines, provided through provincial or national health departments as well as the governing bodies for each respective health condition.

10.	**Blood Pressure**	Been told living with high blood pressure
11.	**Cholesterol**	Been told living with high cholesterol
12.	**Blood Sugar**	Been told living with high blood sugar
13.	**Mental Health**	Been told living with mood/anxiety disorder

Each health risk can be dichotomized as 'high' or 'low' based on these criteria. The overall number of risks is the sum of the 13 selected health risks, as is normally practiced in this type of survey. Participants can be further classified into overall risk levels, as follows:

- Low Risk – 0-2 risk factors
- Medium Risk – 3-4 risk factors
- High Risk – 5+ factors

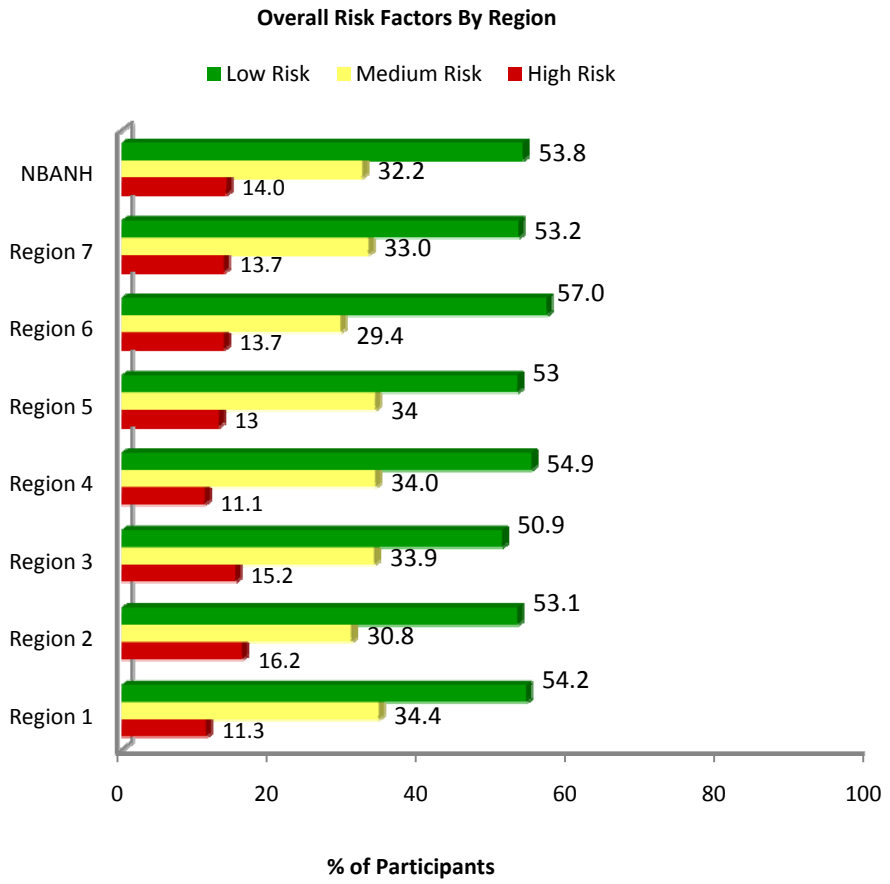
Using this categorization, the overall risk profile of the respondent group indicates that **14.0% are at high risk** (5+ risk factors), **32.2% are at medium risk** (3-4 risk factors) and **53.8% are at low risk** (0-2 risk factors).



The health risk profile of organizations depends on various factors, including age of the workforce, the sector, the type of work, and the like. Although the proportions of low, medium and high risk can vary considerably, the following published comparator can be used: 10.8% high risk, 24.6% medium risk, and 64.5% low risk.[3]

[3] Edington, American Journal of Health Promotion. 15(5):341-349, 2001.

The group comparison indicates that **Region 2** has the highest proportion of high risk individuals (**16.2%**), followed by **Region 3** (**15.2%**)**,** both of which are above the NBANH norm. All other regions are below the norm, with **Region 4** having the lowest proportion at high risk (**11.1%**).



Self Reported Health Status

Self-reported health status – both general health and general mental health – are 2 key indicators of overall health.

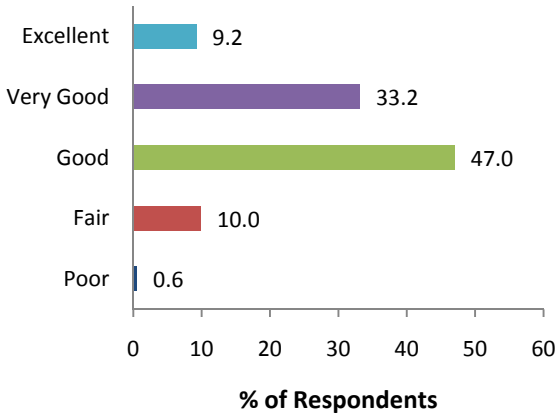
Self-reported general health status and mental health status were assessed on a 5-point scale from 'poor' to 'excellent'. As the graphs below indicate:

- **42.4%** rate their general health as 'very good' or 'excellent', whereas almost **10.6%** rate it as 'fair' or 'poor'
- **14.5%** report that their general health is 'somewhat' or 'much' worse than one year ago
- **52.6%** rate their general mental health as 'very good' or 'excellent', whereas **8.8%** rate it as 'fair' or 'poor'
- Almost **10%** report that their general mental health is 'somewhat' or 'much' worse than one year ago
- **14.1%** indicate that theirs general health is worse than it was 1 year ago

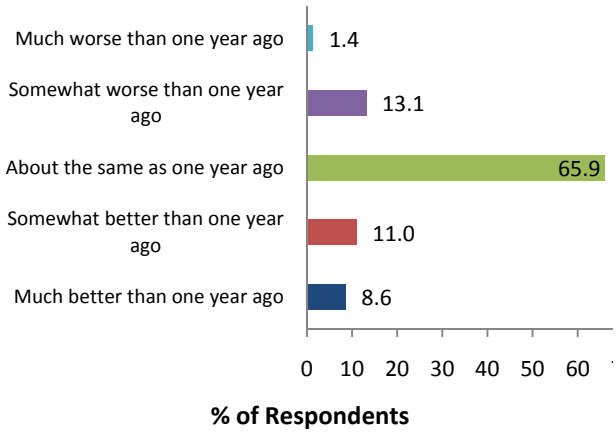
- Almost 10% indicate general mental health is worse than it was 1 year ago
- **Region 1** reports the greatest proportion of employees reporting 'poor' or 'fair' general health (**12.7%**)
- **Region 2** reports the greatest proportion of employees reporting 'poor' or 'fair' general mental health (**10.9%**)

According to the Canadian Community Health Survey (CCHS) (2007)[4], **59.7**% of respondents from all provinces and territories ages 12 and older rated their general health as 'very good' or 'excellent 'and **72.7%** rated their mental health as 'very good' or 'excellent'. Specifically for New Brunswick, **55%** of CCHS respondents age 12 or older rated their general health as "very good" or "excellent" and **68%** rated their mental health similarly.

Self Reported General Health Status
(N=2812)

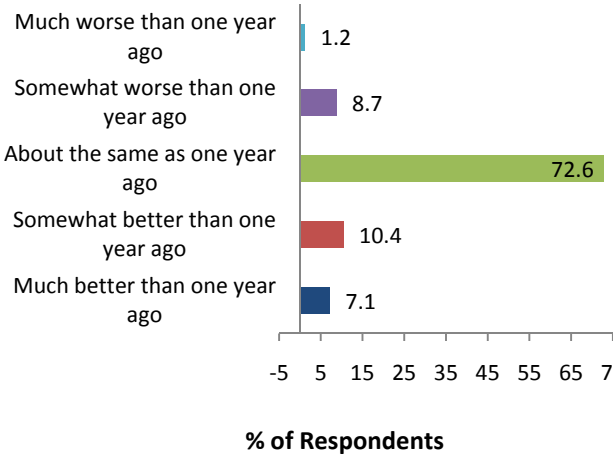


Compared to One Year Ago, General Health is:
(N=2778)

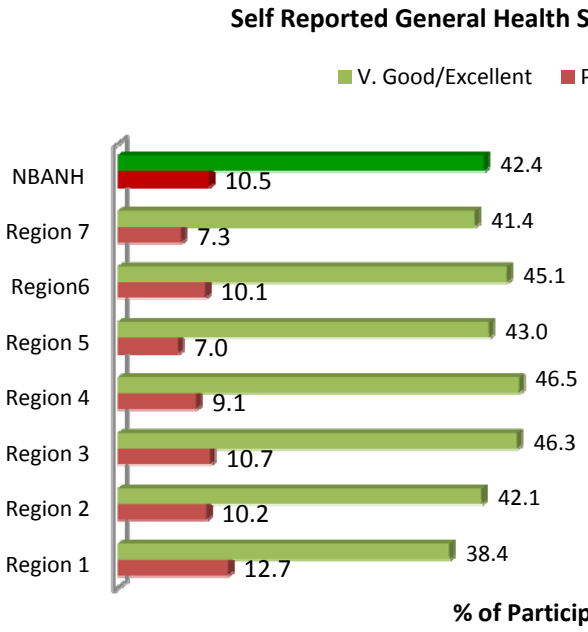


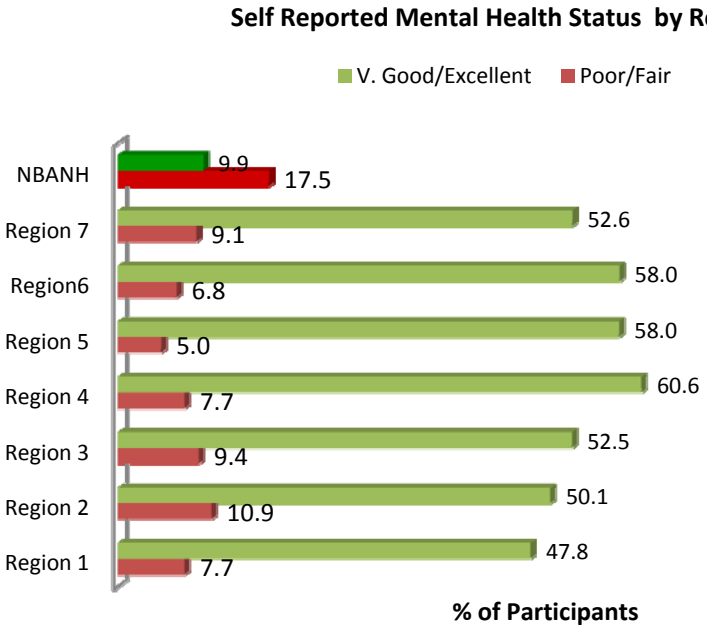
Self Reported Mental Health Status
(N=2810)

Compared to One Year Ago, Mental Health is:
(N=2752)



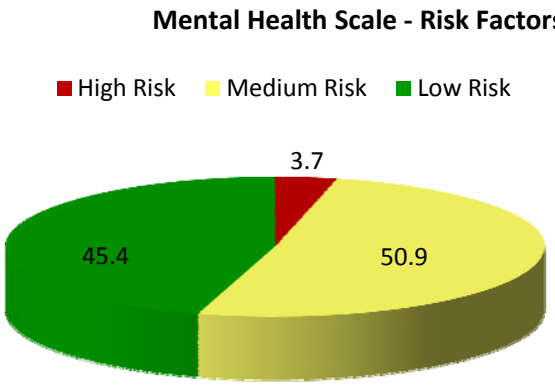
[4] The Canadian Community Health Survey was last performed by Statistics Canada in 2007.

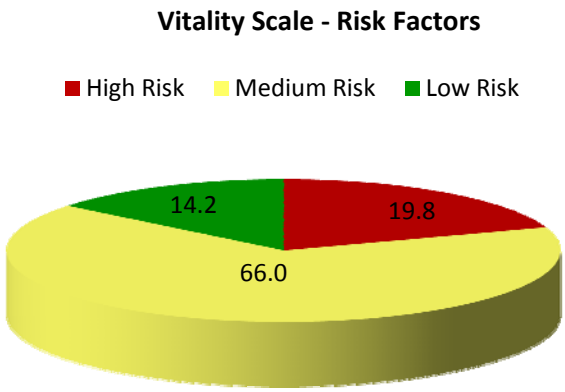


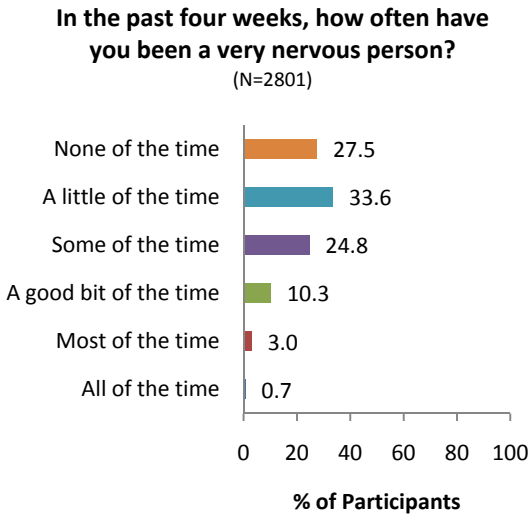


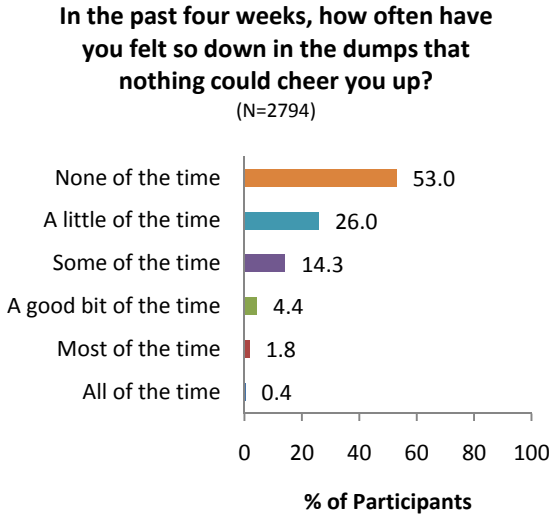
Participants were also asked to answer questions regarding their **overall mood and well-being in the past 4 weeks**. The answers to these questions ranged from "none of the time" to "all of the time". These responses were used to calculate the following mental health and vitality 'scores. The following are the highlights of the results:

- **3.7%** of participants had a high risk score for mental health
- **19.8%** of participants scored in the high risk score range of vitality (i.e.: at high risk of having low vitality)

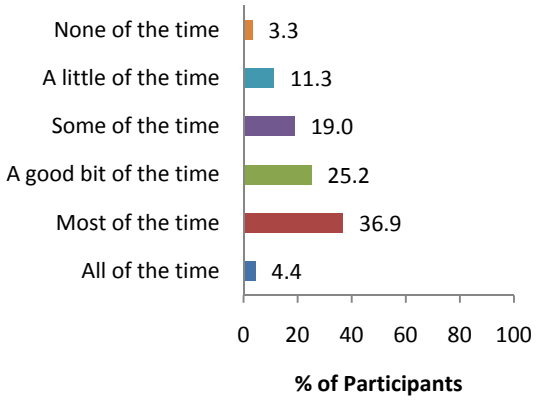




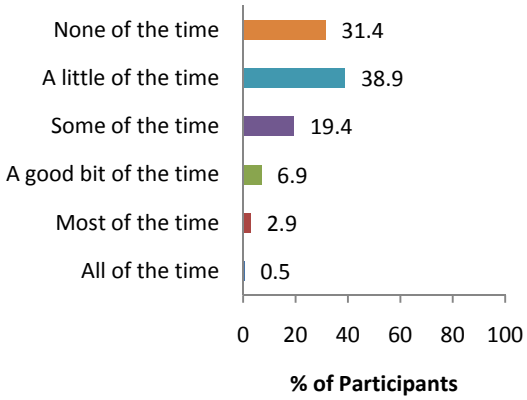




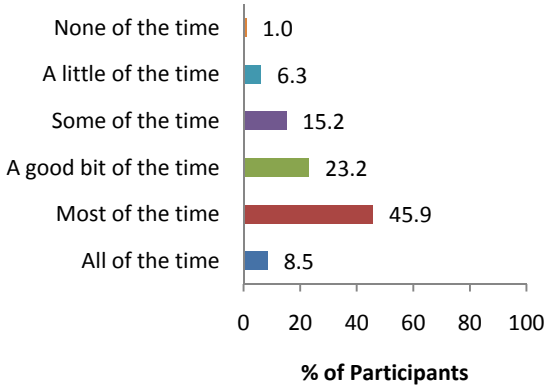
In the past four weeks, how often have you felt calm and peaceful?
(N=2765)



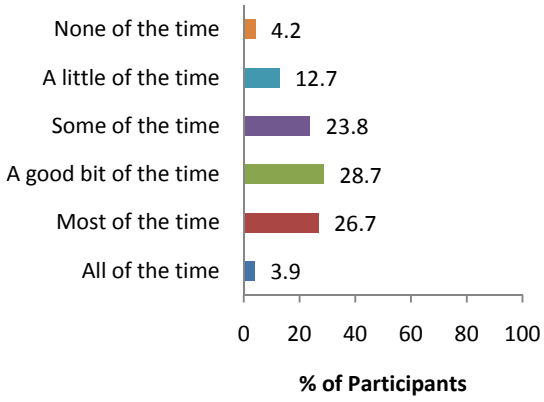
In the past four weeks, how often have you felt downhearted and blue?
(N=2750)



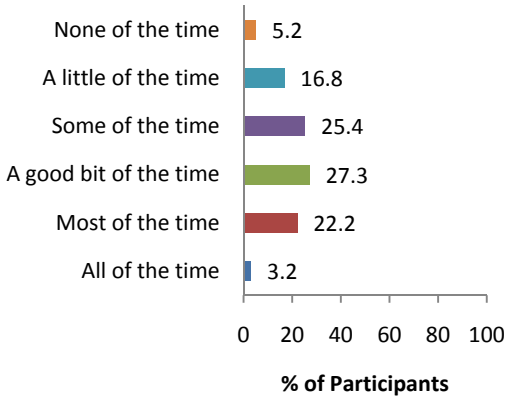
In the past four weeks, how often have you been a happy person?
(N=2772)



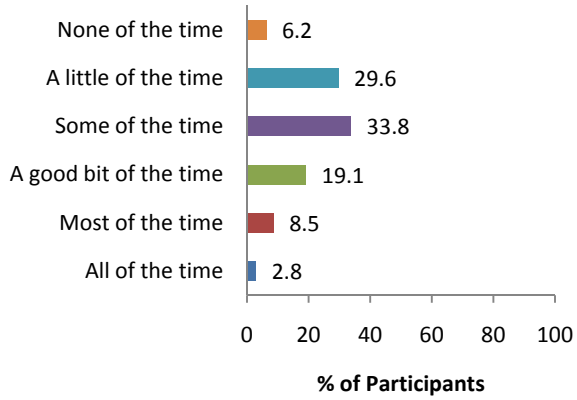
In the past four weeks, how often did you feel full of pep?
(N=2754)



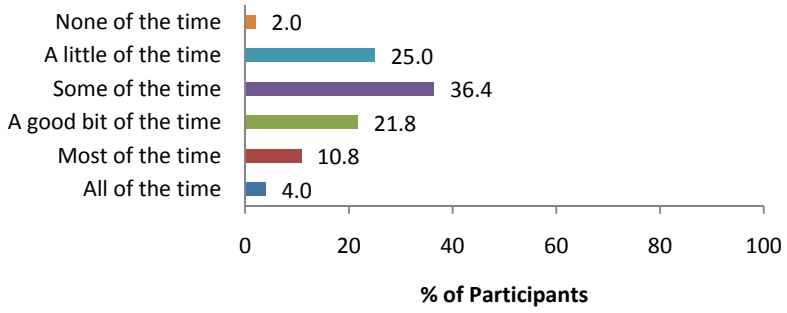
In the past four weeks, how often did you have lots of energy?
(N=2775)



In the past four weeks, how often did you feel worn out?
(N=2790)



In the past four weeks, how often did you feel tired?
(N=2795)



Preventative Care and Health Conditions

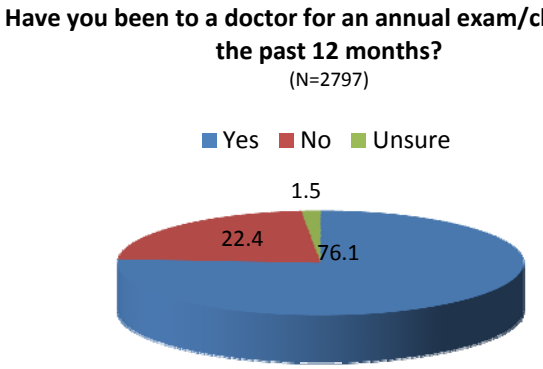
Preventative healthcare is paramount for early detection of disease. Detection comes by way of clinical screening, through the referral of a physician. Guidelines for screening are provided by the provincial government, and are based on age, gender and ethnicity. However, workplace health promoters would maintain it is best practice for every employee to follow a more regular (annual) screening protocol, regardless of any other factors.

Accordingly, this section of the survey assessed both known conditions and preventative care behaviours. Participants were asked about their previous medical consultations, preventative screenings and existing medical problems. Following are their answers:

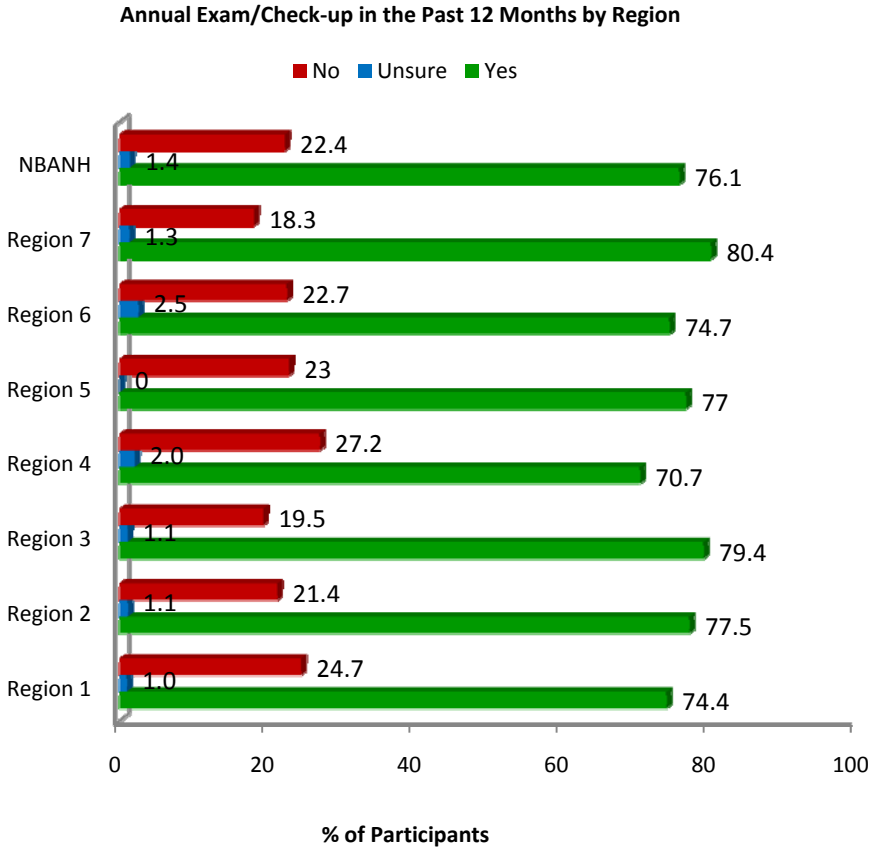
- **22.4%** of respondents overall have not had an annual physical/check up in the past 12 months
- **14.9%** of respondents have not had their blood pressure checked by a health professional in the past 12 months
- **32.7%** of respondents have not had their blood cholesterol checked by a health professional in the past year, and **11.4%** have never done so, for a combined total of **44.10%** who have had their cholesterol tested
- **30.1%** of respondents have not had their blood sugar checked by a health professional in the past year, and **9%** have never done so, for a combined total of **39.10%** who have had their blood sugar tested
- **51.2%** have never spoken with their health care professional about their recommended cancer screening tests

Regionally, the following highlights were observed:

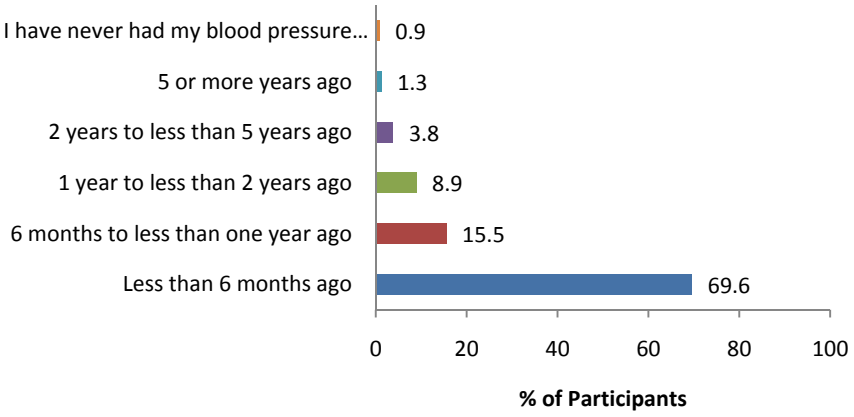
- **27.2%** of respondents in **Region 4** and **24.7%** in **Region 1** have not had an annual physical/check up in the past 12 months
- **21.43%** of respondents in **Region 4** and **17.21%** in **Region 1** have not had their blood pressure checked by a health professional in the past 12 months
- **Almost half** the respondents from **Regions 1, 2 , 3 and 4** have not had their cholesterol checked by a health professional in the past 12 months
- **45.42%** of respondents in **Region 4** and **42.78%** in **Region 3** have not had the blood sugar tested; a higher proportion of respondents in comparison to the norm at NBANH overall
- **60.6%** of respondents in **Region 5, 54.5%** in **Region 7, and 53.7%** in **Region 4**, have never spoken with their health care professional about their recommended cancer screening tests



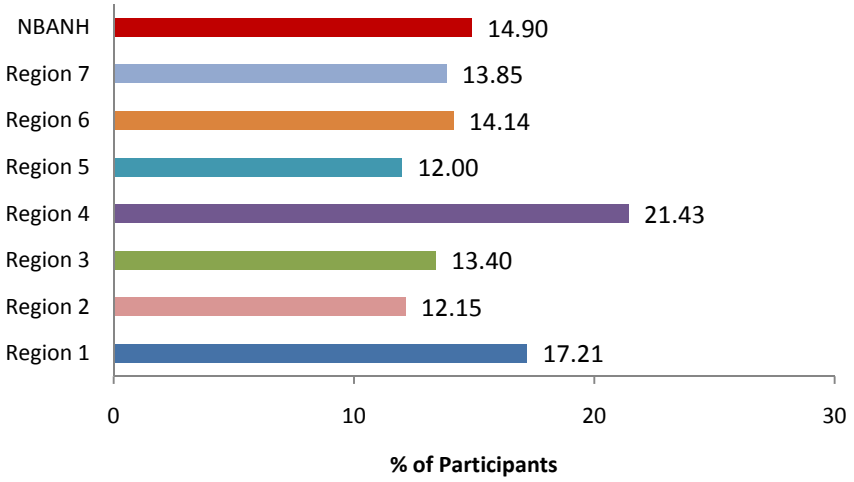
According to CCHS, **23.2%** of Canadians had not had an annual exam in the last year. New Brunswick, in particular, fares slightly better, with only **19.8%** not receiving an annual checkup.



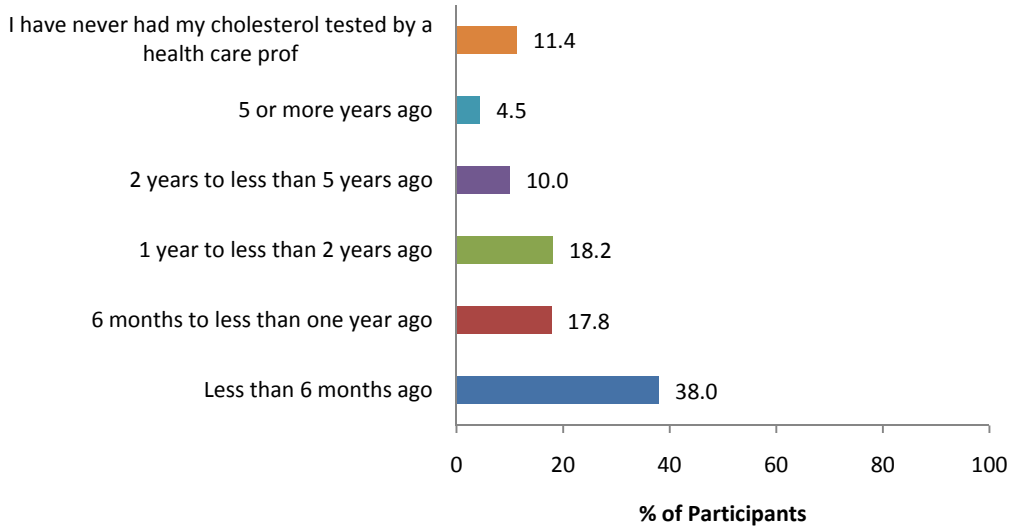
Last time had blood pressure checked by a health care professional?
(N=2798)



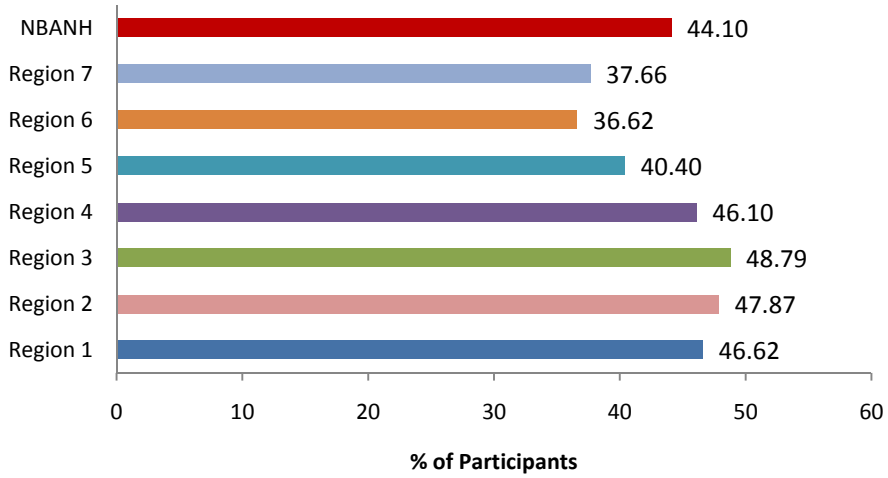
Participants Who Have Not Had Blood Pressure Checked in the Past 12 Months By Region



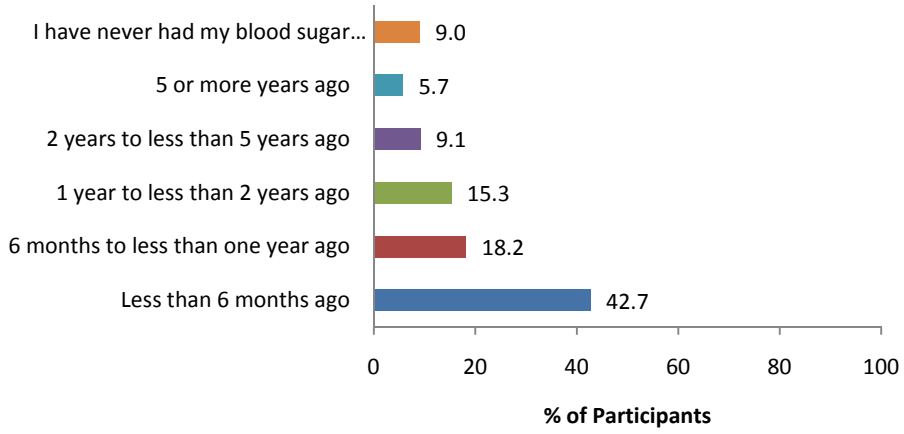
Last time had blood cholesterol tested by a health care professional?
(N=2797)



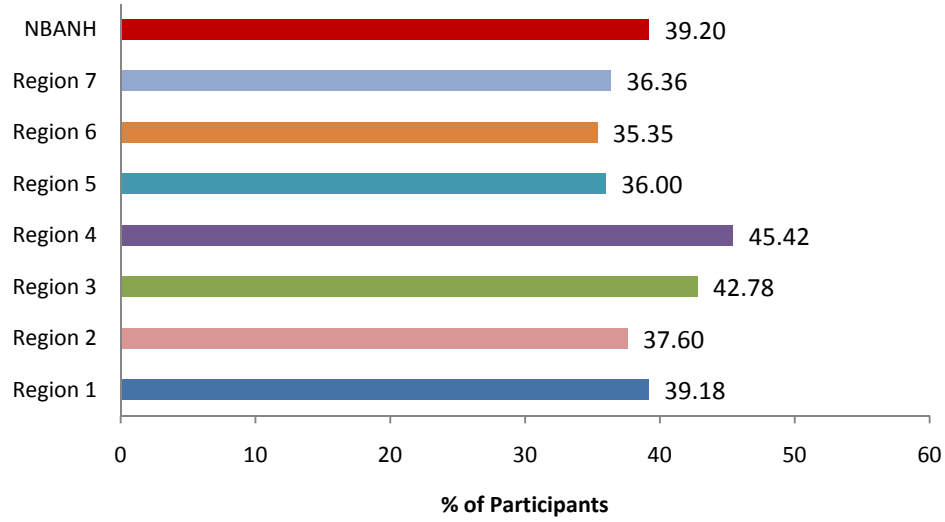
Participants Who Have Not Had Blood Cholesterol Checked in the Past 12 Months By Region



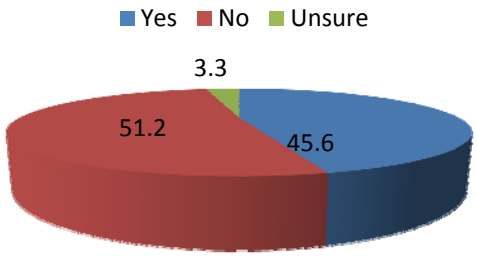
Last time had blood sugar measured by a health care professional?
(N=2793)



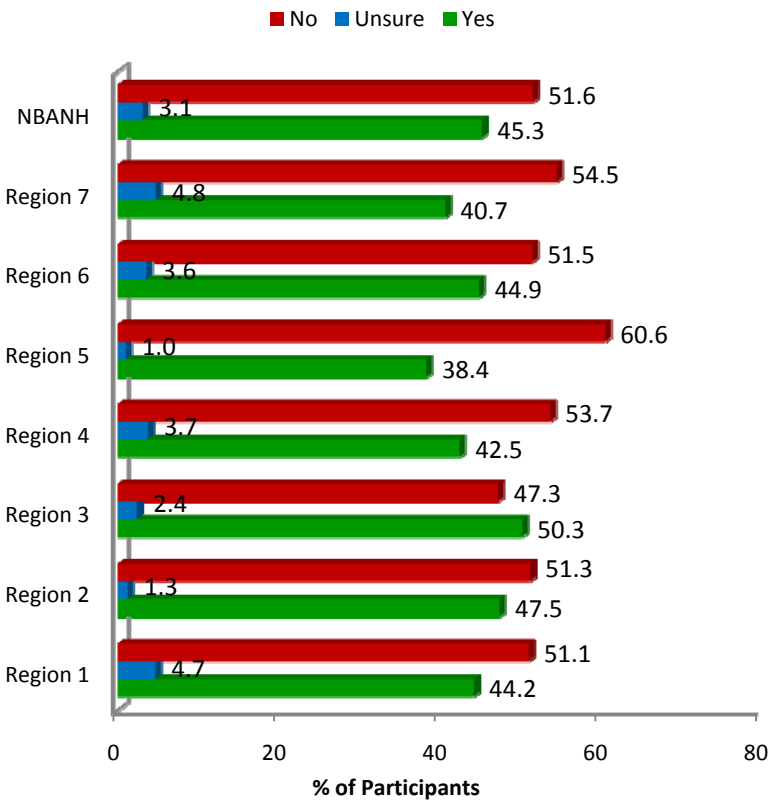
Participants Who Have Not Had Blood Sugar Checkes in the Past 12 Months By Region



Ever talked to your health care professional about recommended cancer screening tests?
(N=2785)



Talked to Health Care Professional About Cancer Screening by Region



Existing Health Conditions

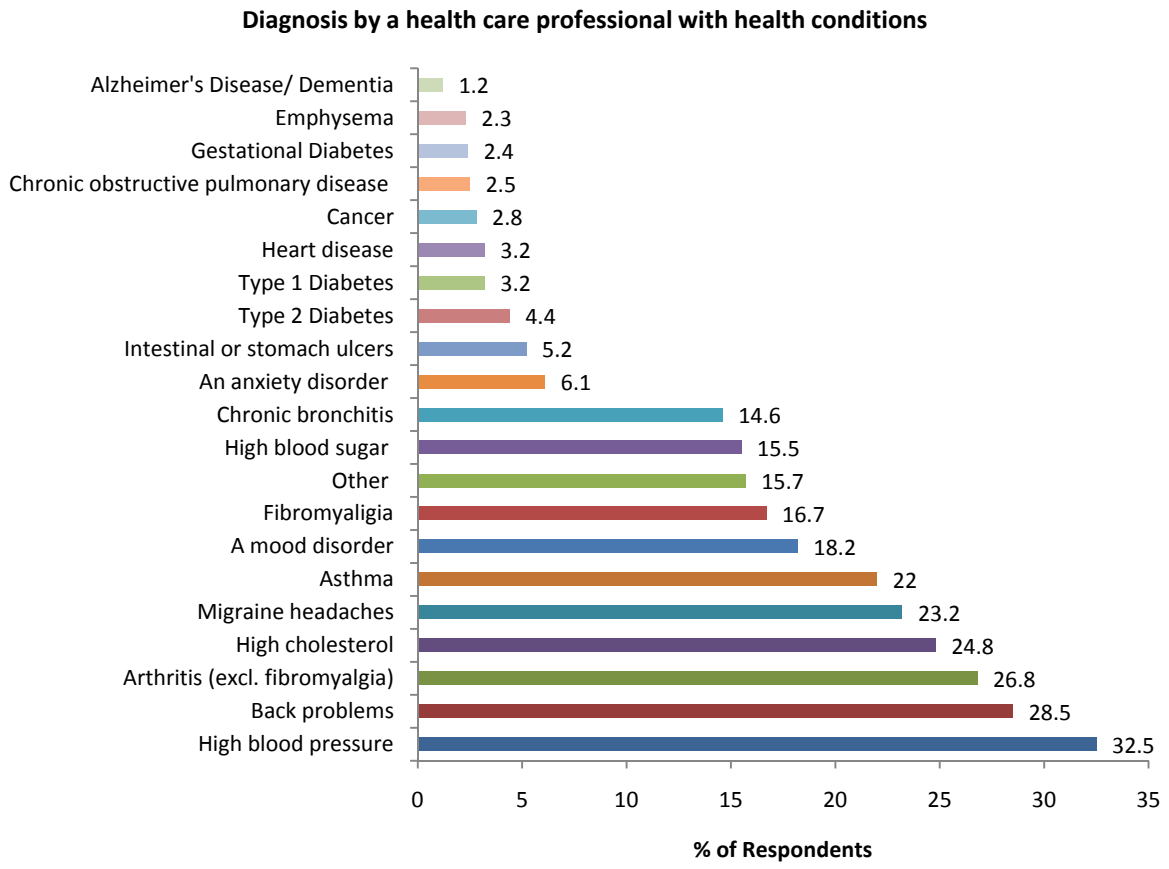
When asked about existing health conditions, the following were the participants' responses:

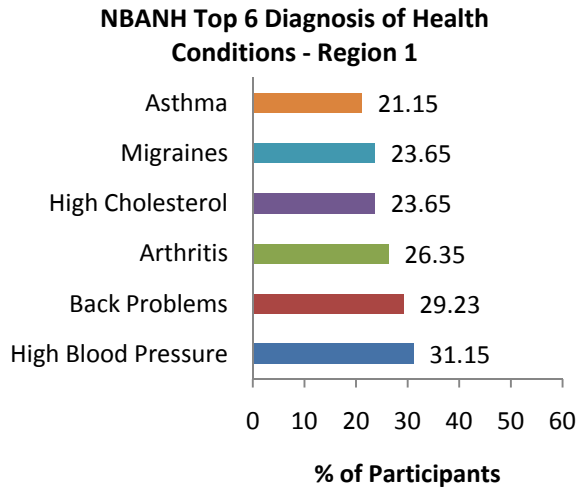
- **32.5%** have been diagnosed with high blood pressure
- **28.5%** have back problems
- **26.8%** have arthritis (excl. fibromyalgia)
- **24.8%** live with high blood cholesterol
- **23.2%** live with migraine headaches
- **22%** have asthma

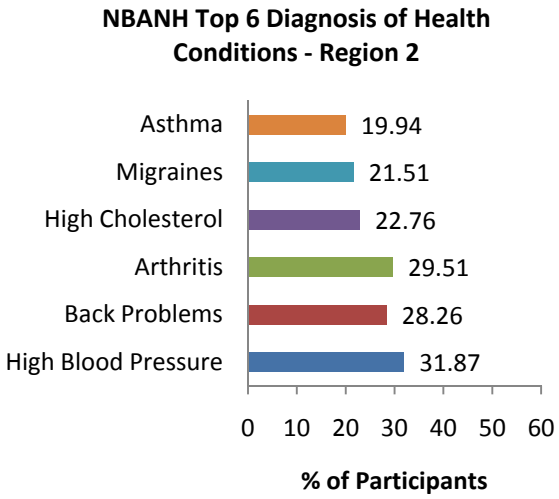
According to the CCHS (2007) survey, 15% of Canadians are living with Arthritis, 5.85% are living with Diabetes, 8.05% are living with Asthma and 15.9% are living with high blood pressure.

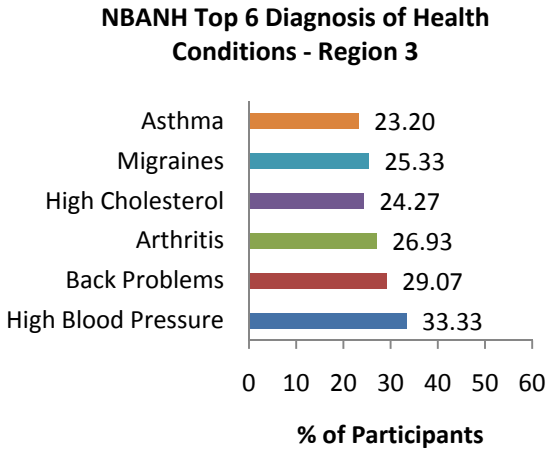
Regionally, the highlights observed were:

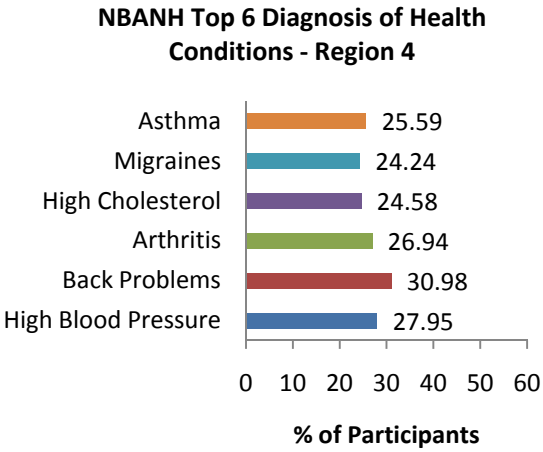
- **Region 7** participants had the highest percentage of high blood pressure (**37.34%**), high cholesterol (**27.04%**), and migraines (**27.9%**)
- **Region 4** participants had the highest percentage of back problems (**30.98%**) and asthma (**25.59%**)
- **Region 2** had the highest percentage of arthritis (**29.51%**)

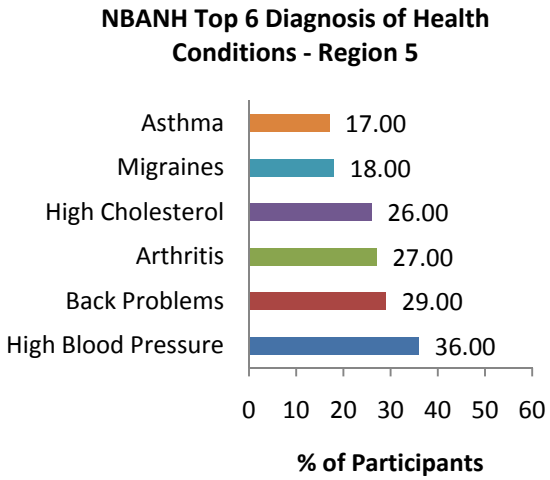


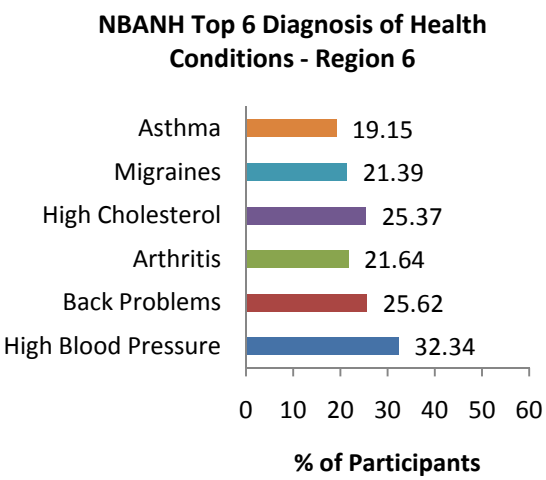


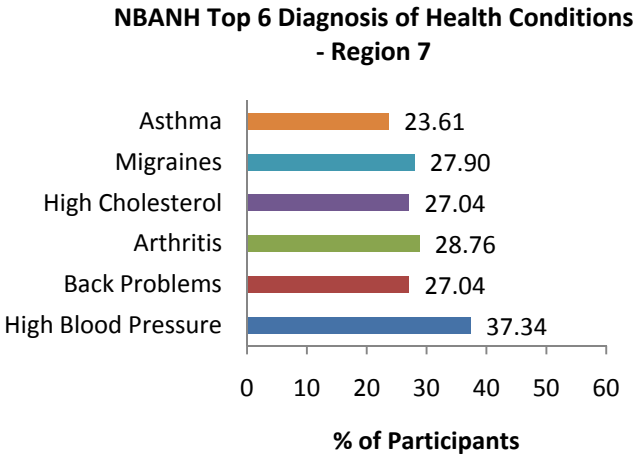






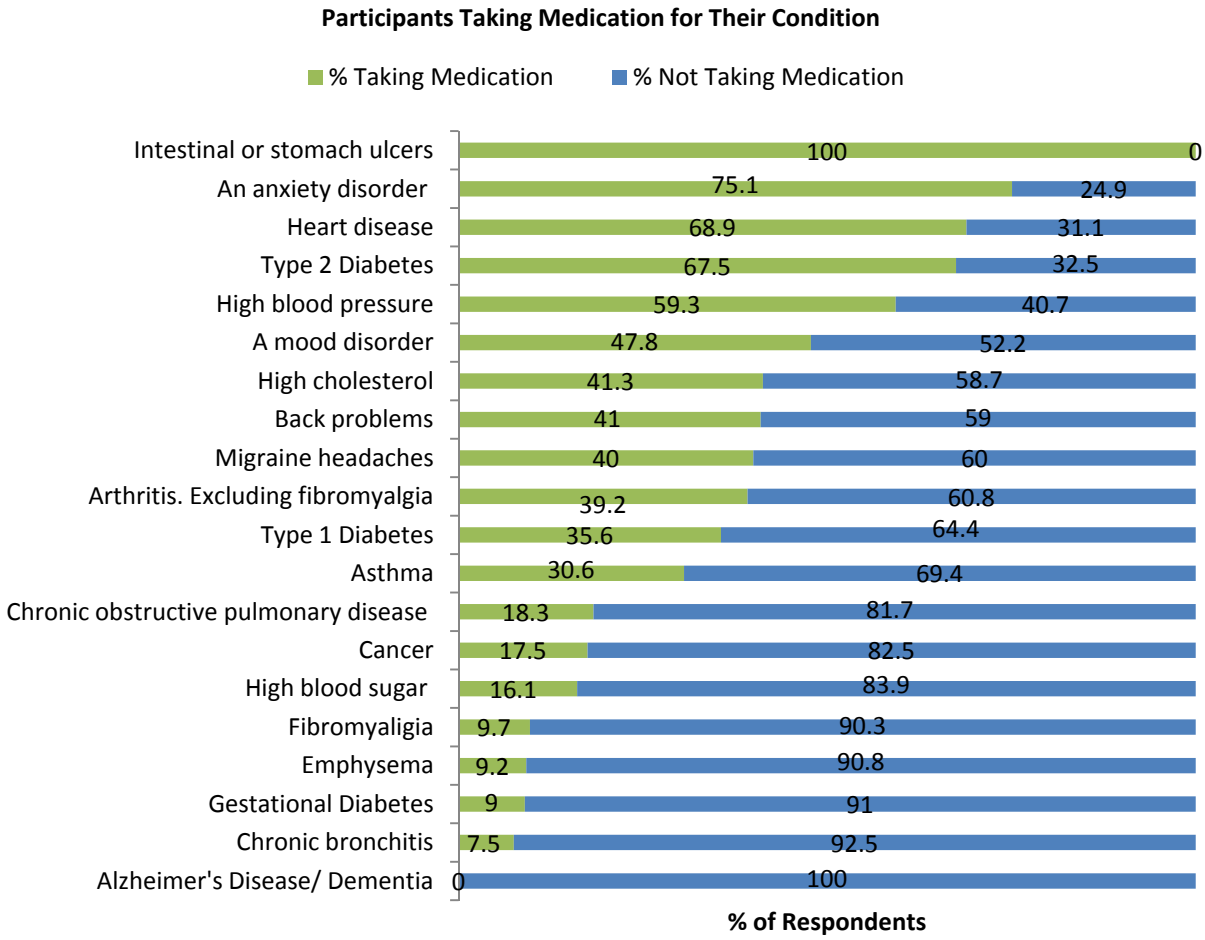






Respondents were also asked if they were taking medication for their diagnosed conditions, a cost incurred by NBANH through prescription drug utilization. The following results were observed:

- **100%** of respondents with **intestinal or stomach ulcers** take medication for their condition
- **75.1%** of respondents with **anxiety disorders** take medication for their condition
- **68.9%** of respondents with **heart disease** take medication for their condition
- **67.5%** of respondents with **type 2 diabetes** take medication for their condition
- **59.3%** of respondents with **high blood pressure** take medication for their condition



It is noted: it is difficult to determine if those who are not taking medication are in fact not required to do so, or by contrast, if medication adherence is an issue.

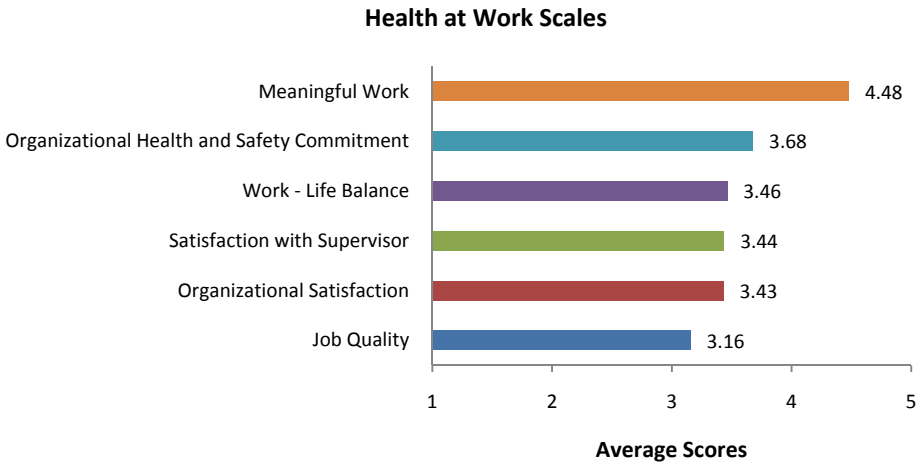
Health at Work

Organizational Determinants of Health

Participants were asked to respond to a list of statements regarding workplace factors that are related to employee health and wellbeing. The responses were on a 5-point scale ranging from "strongly agree" to "strongly disagree" (with 1 being the lowest and 5 being the highest). The responses were factor analyzed in order to create 6 distinct **Health at Work Scales**:

- Factor 1: Satisfaction with Supervisor
- Factor 2: Organizational Satisfaction
- Factor 3: Organizational Health and Safety Commitment
- Factor 4: Work-Life Balance
- Factor 5: Job Quality
- Factor 6: Meaningful Work

Average scores of these six Factors are presented below:

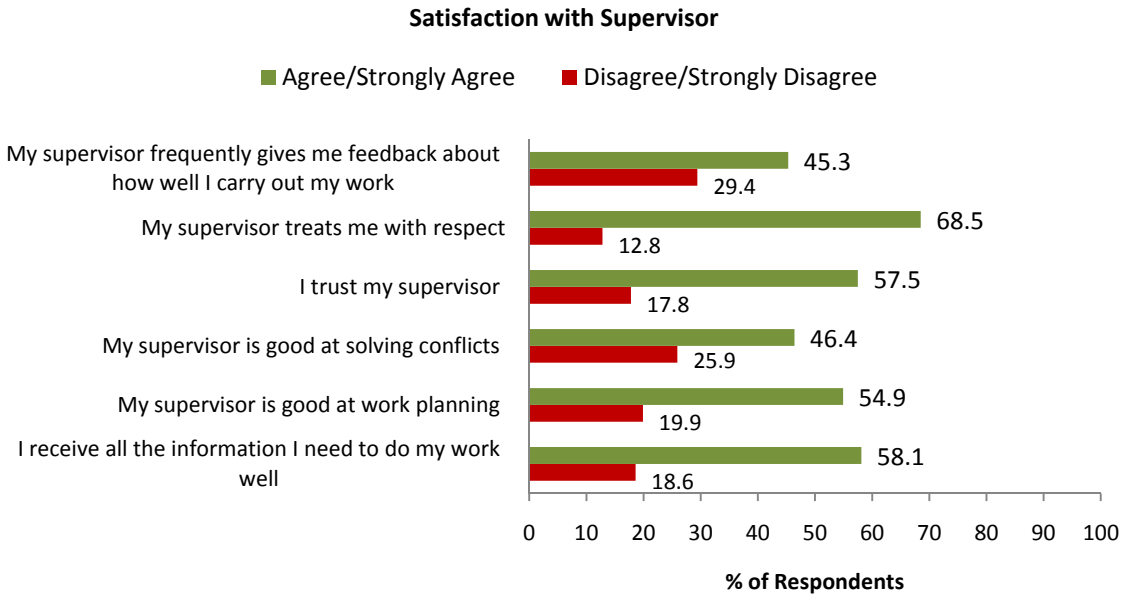


Frequency distributions and top box/bottom box analysis of the individual questions are presented below for each factor. These findings indicate that:

- The key issues related to Supervisor Satisfaction are 'providing feedback' and 'solving conflicts'
- The key issues related to Organizational Satisfaction are 'being kept informed' and 'being treated fairly'
- The key issues related to Organizational Health and Safety Commitment are 'physical workspace' and 'management's interest in the wellbeing of employees'
- The key issue related to work/life balance is about the 'flexibility of work schedules'
- The key issue related to Job Quality is 'workload'
- The vast majority of respondents are satisfied with the meaning inherent in their work

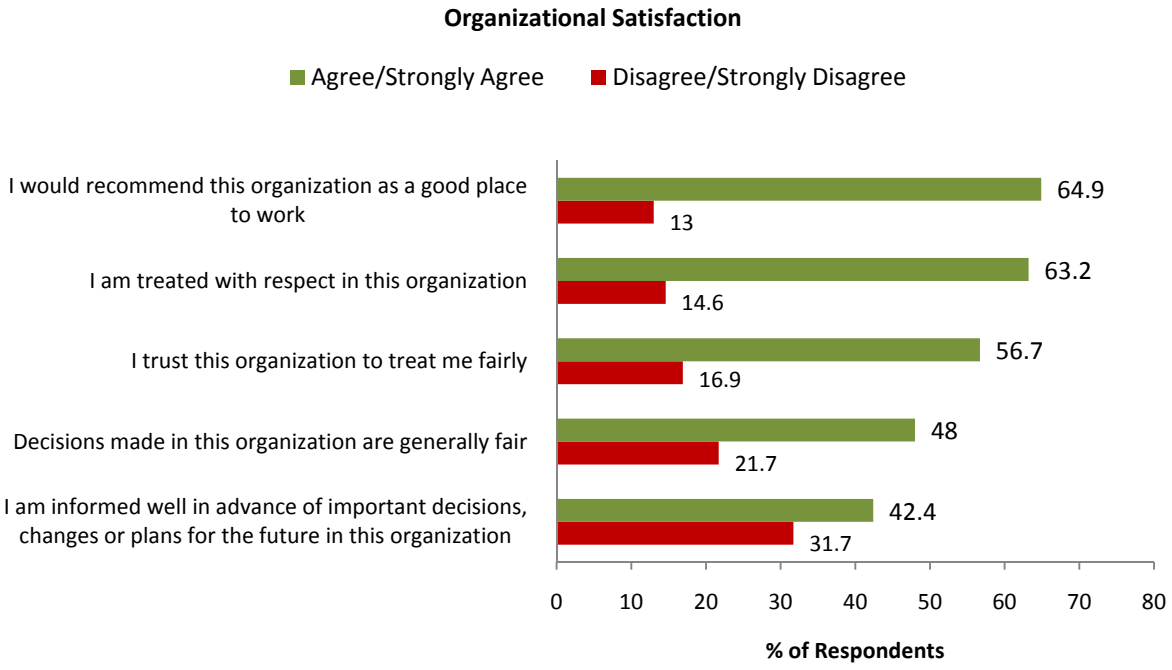
Factor 1: Satisfaction with Supervisor

% of Respondents	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
1. I receive all the information I need to do my work well (N=2778)	4.3	14.3	23.3	44.7	13.4
2. My supervisor is good at work planning (N=2778)	6.8	13.1	25.3	39.1	15.8
3. My supervisor is good at solving conflicts (N=2773)	10.8	15.1	27.7	32.6	13.8
4. I trust my supervisor (N=2776)	7.6	10.2	24.6	38.4	19.1
5. My supervisor treats me with respect	5.7	7.1	18.7	43.5	25
6. My supervisor frequently gives me feedback about how well I carry out my work (N=2765)	10.3	19.1	25.4	32.1	13.2



Factor 2: Organizational Satisfaction

% of Respondents	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
1. I am informed well in advance of important decisions, changes or plans for the future in this organization (N=2775)	11.3	20.4	25.9	31.4	11
2. Decisions made in this organization are generally fair (N=2778)	6.3	15.4	30.3	39.8	8.2
3. I trust this organization to treat me fairly (N=2775)	5.3	11.6	26.4	44.7	12
4. I am treated with respect in this organization (N=2782)	4.4	10.2	22.2	49.2	14
5. I would recommend this organization as a good place to work (N=2773)	5.1	7.9	22.1	39.9	25

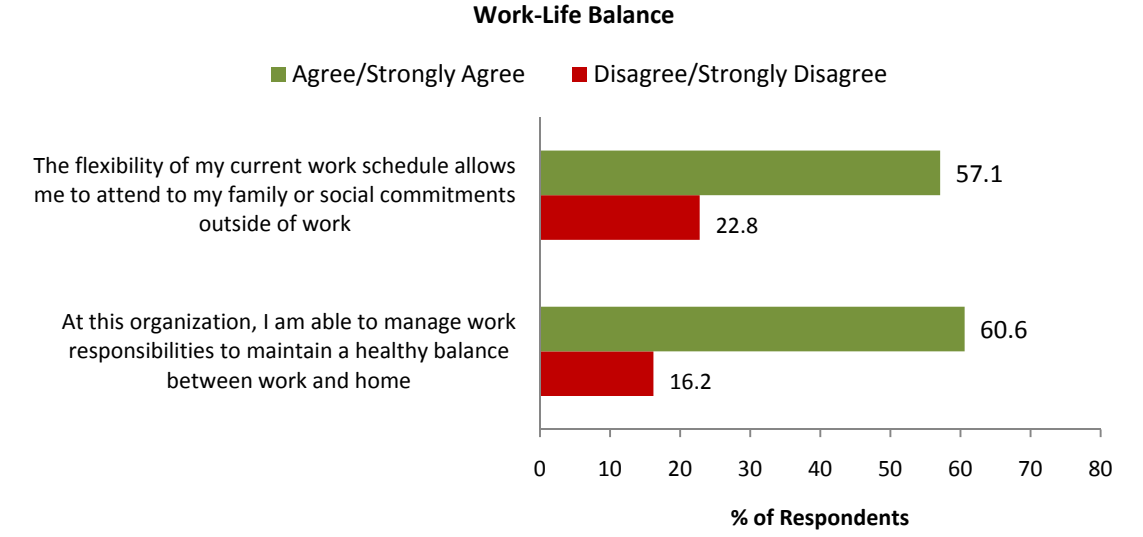


Factor 3: Organizational Health and Safety Commitment

Organization Wide %	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
1. I have adequate health and safety training (N=2781)	1.6	5.8	13.4	58.4	20.8
2. My work area is a safe place to work	2.7	6.5	18	53.7	19.2
3. This company demonstrates a commitment to a healthy workplace (N=2781)	4.3	8.9	23	47.1	16.6
4. My supervisor is very committed to the safety of employees (N=2776)	3.5	6.9	17.4	51.1	21.1
5. In this company, management is interested in the well being of employees (N=2788)	7.2	12	25.1	40.6	15.1
6. I am satisfied with my physical working conditions (N=2776)	4.7	14	24.2	44.9	12.1

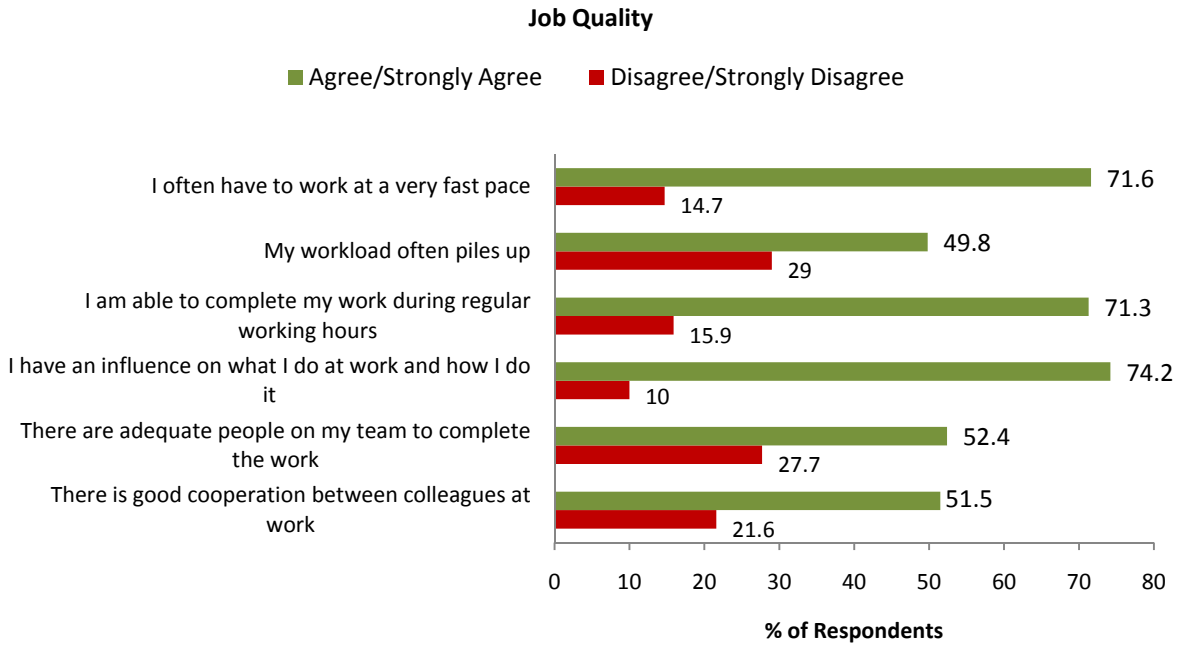
Factor 4: Work-Life Balance

% of Respondents	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
1. At this organization, I am able to manage work responsibilities to maintain a healthy balance between work and home (N=2780)	4.9	11.3	23.2	47.1	13.5
2. The flexibility of my current work schedule allows me to attend to my family or social commitments outside of work (N=2779)	7.8	15	20.1	43.1	14



Factor 5: Job Quality

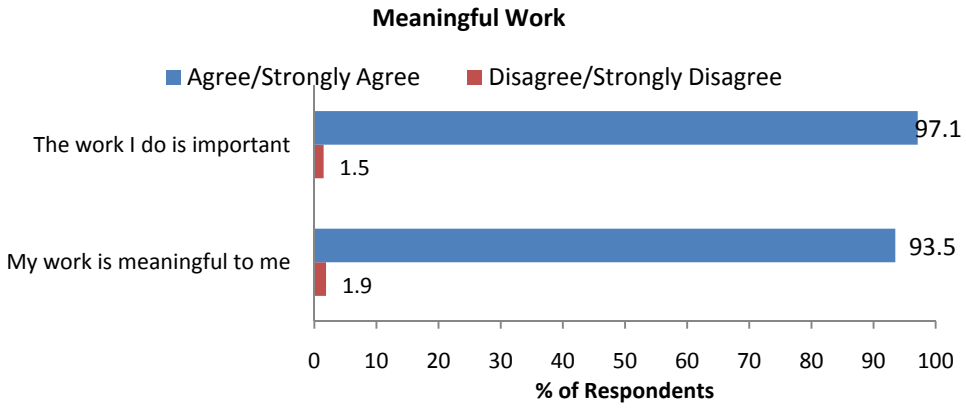
% of Respondents	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
1. There is good cooperation between colleagues at work (N=2766)	6.8	14.8	26.9	39.4	12.1
2. There are adequate people on my team to complete the work (N=2768)	9.1	18.6	19.3	38.8	13.6
3. I have an influence on what I do at work and how I do it (N=2762)	3.3	6.7	15.9	54.8	19.4
4. I am able to complete my work during regular working hours (N=2754)	3.8	12.1	12.7	52.4	18.9
5. My workload often piles up (N=2766)	6.1	22.9	21.2	32.4	17.4
6. I often have to work at a very fast pace (N=2789)	3.8	10.9	13.7	40.4	31.2



Note: Regarding the chart above, agreement to responses "My workload often piles up" and "I often have to work at a very fast pace" are considered a *negative indicator.*

Factor 6: Meaningful Work

% of Respondents	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
1. My work is meaningful to me (N=2780)	1.1	0.8	4.6	41.4	52.1
2. The work I do is important (N=2775)	1.1	0.4	1.3	38.3	58.8



Regional averages of the Health at Work scales are presented below. Notably higher than organizational average scores (>0.10 higher) are indicated in green, and notably lower than organizational average scores are indicated in red (>0.10 lower). Findings indicate that:

- **Region 1** scored notably lower than average on 5 of 6 scales
- **Region 2** scored similar to the average on all scales – *Note: this is largely due to the size of this group*
- **Region 3** scored notably higher than the average on 2 scales
- **Region 4** scored notably lower than the average on 1 scale
- **Region 5** scored notably higher on one scale and notably lower on 2 scales
- **Region 6** scored notably higher on 4 scales
- **Region 7** scored notably higher on 4 scales

	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	NBANH - Total
Satisfaction with Supervisor	3.30	3.39	3.58	3.34	3.59	3.53	3.56	**3.44**
Organizational Satisfaction	3.24	3.41	3.58	3.35	3.37	3.58	3.58	**3.43**
Organizational Health and Safety Commitment	3.55	3.65	3.75	3.70	3.57	3.80	3.73	**3.68**
Work - Life Balance	3.36	3.52	3.42	3.37	3.29	3.59	3.64	**3.46**
Job Quality	3.06	3.06	3.14	3.23	3.13	3.36	3.27	**3.16**
Meaningful Work	4.45	4.45	4.50	4.53	4.55	4.55	4.47	**4.48**

Stress Satisfaction Offset Score

Stress levels at work were also measured using the **Stress Satisfaction Offset Score (SSOS).** The Stress and Satisfaction Offset Score (SS0S) was developed as a brief survey to provide a "first pass" assessment of risks to mental and physical health associated with the key conditions of work, namely, demand, control, effort and reward. It is a four item inventory that gathers individual employee's perceptions of the amount of demand, control, effort and reward in their particular work situation. Markers for demand and effort are stress indicators, and markers of control and reward are satisfaction indicators.

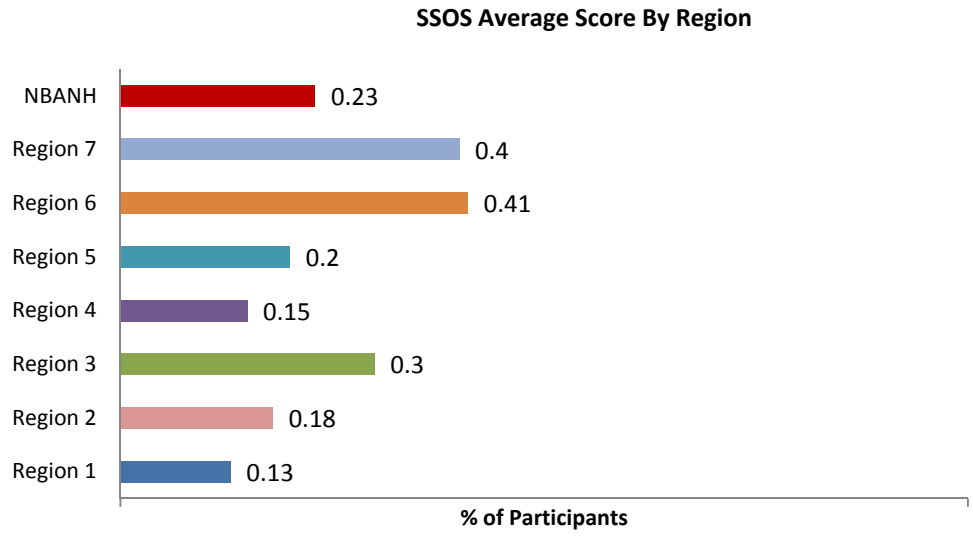
The Index measures the extent to which the health culture (relationship between stressors and satisfiers) of an organization is working for or against its business objectives.

- A score of **+0.5 to +2.0** is considered optimal in terms of workplace health.
- A score of **0 to +0.5** is indicative of a work unit that requires some support to improve organizational health.
- A score of **below 0** is indicative of a work environment that requires immediate attention because in all likelihood the organization is experiencing high stress, low job satisfaction that is working against the achievement of business objectives.

The findings of the SSOS indicate the following:

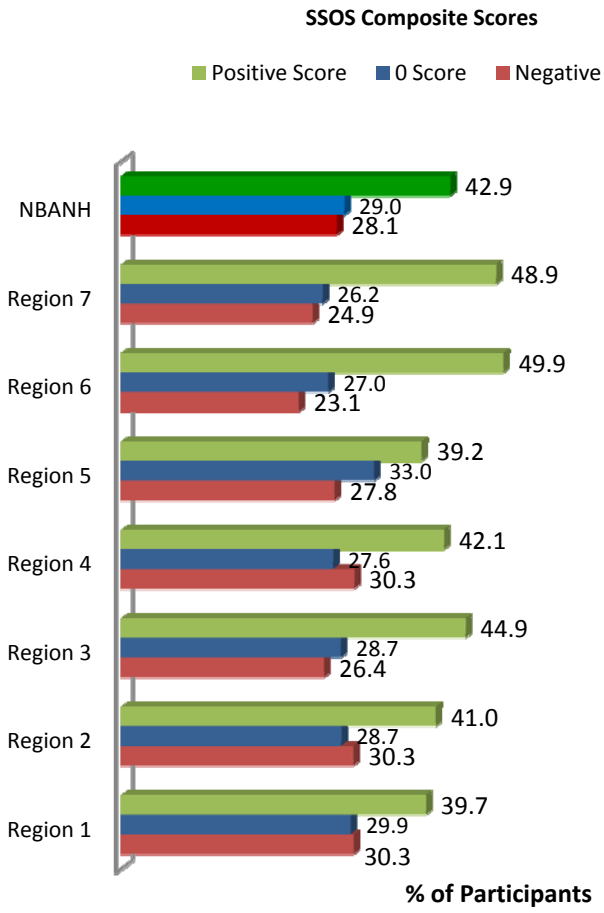
- The overall organization score for NBANH is **0.23**, indicating that overall, NBANH requires some support to improve organizational health.
- The highest scores were seen for Region 6 (0.41) and 7 (0.4).
- The lowest scores were seen in Region 1 (0.13) and 4 (0.15).

These findings are aligned to the results of the Health and Work Scales.



Overall score distribution can be observed in the following graph:

- **28%** of respondents scored a negative SSOS, indicating that their stress is not being offset by their satisfaction
- **29%** of participants scored a 0 in the SSOS, indicating that their stress is being mitigated by their satisfaction
- **42.9%** scored a positive score in the SSOS, indicating either that there is little job stress, or that job satisfaction is offsetting their job stress
- **Region 6 (49.9%)** and **region 7 (48.9%)** had the highest proportion of positive SSOS scores
- **Regions 1, 2 and 4 (30.3%)** had the highest percentage of negative SSOS scores

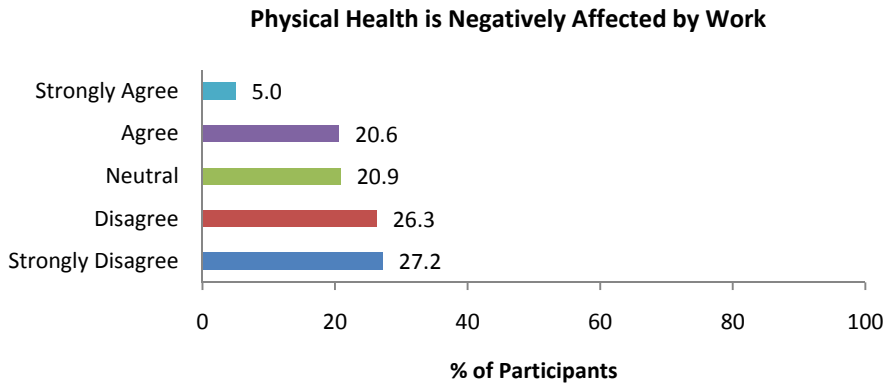


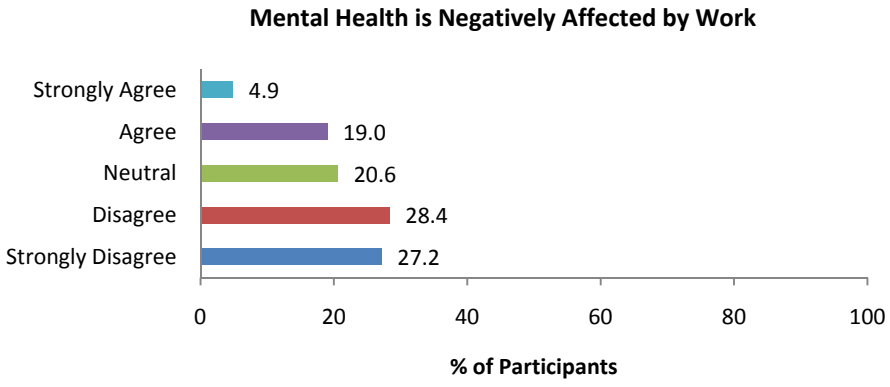
Work Impact on Health

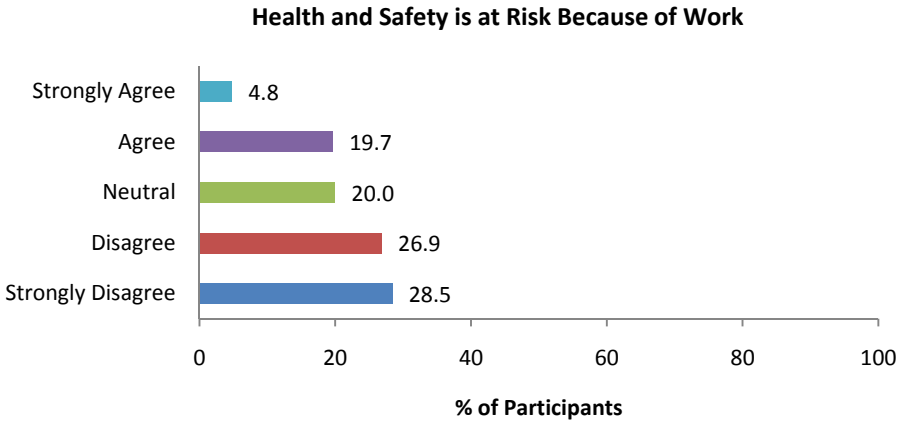
Participants were also asked about the impact of their work on their health. They were asked to select an answer from a range of responses from "strongly disagree" to "strongly agree". Following are their answers:

- **25.6%** agree / strongly agree that their physical health is negatively affected by work
- **23.9%** agree / strongly agree that their mental health is negatively affected by work

- **24.5%** agree / strongly agree that their <u>health and safety</u> is at risk because of work

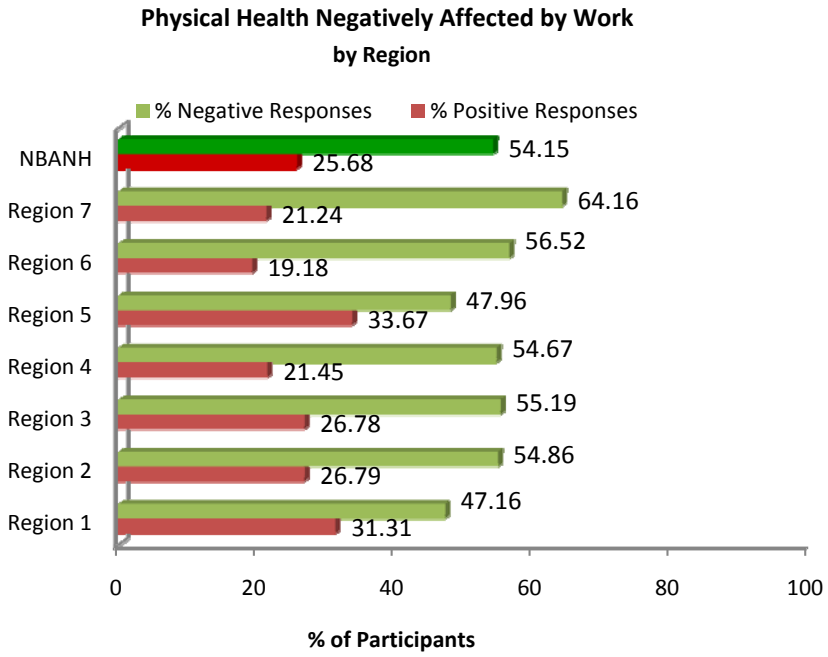


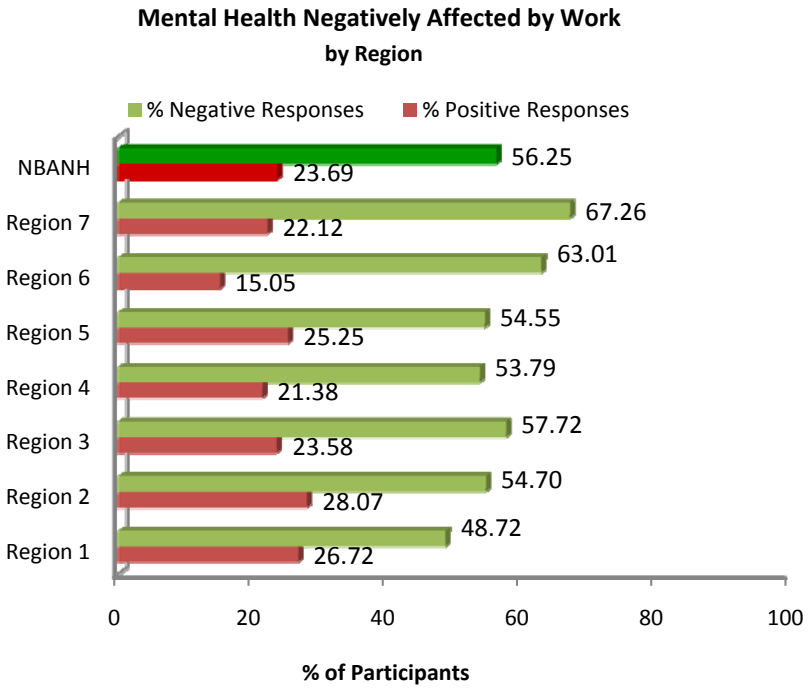


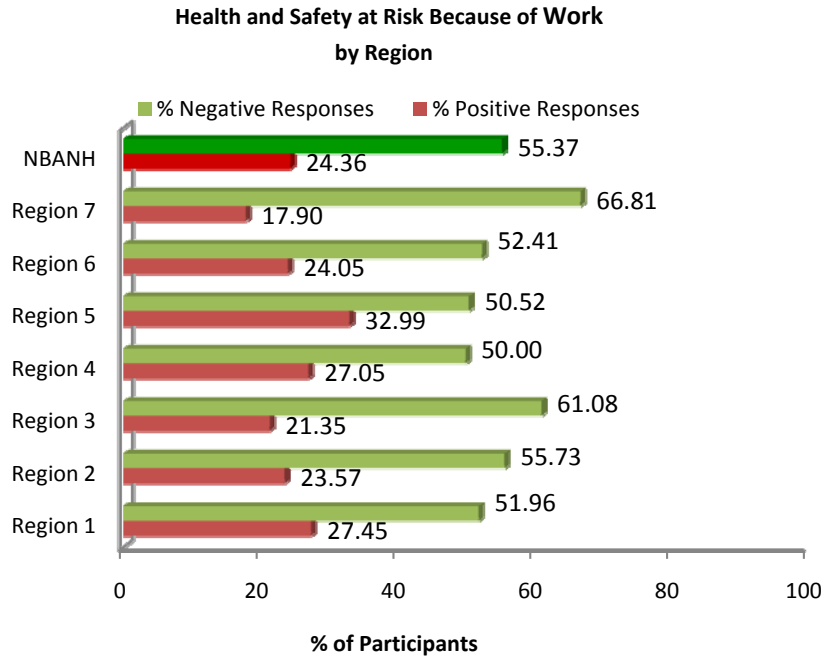


Regional differences are demonstrated in the following three graphs:

- The highest proportions of respondents reporting that their physical health is negatively impacted by work are in **Region 5 (33.67%)** and **Region 1 (31.31%)**
- The highest proportions of respondents reporting that their mental health is negatively impacted by work are in **Region 2 (28.07%)** and **Region 1 (26.72%)**
- The highest proportion of respondents reporting that their health and safety is at risk because of work are in **Region 5 (32.99%)** and **Region 1 (27.45%)**




Mental Health Negatively Affected by Work
by Region
% Negative Responses
% Positive Responses
NBANH
Region 7
Region 6
Region 5
Region 4
Region 3
Region 2
Region 1
56.25
23.69
67.26
22.12
63.01
15.05
54.55
25.25
53.79
21.38
57.72
23.58
54.70
28.07
48.72
26.72
0
20
40
60
80
100
% of Participants

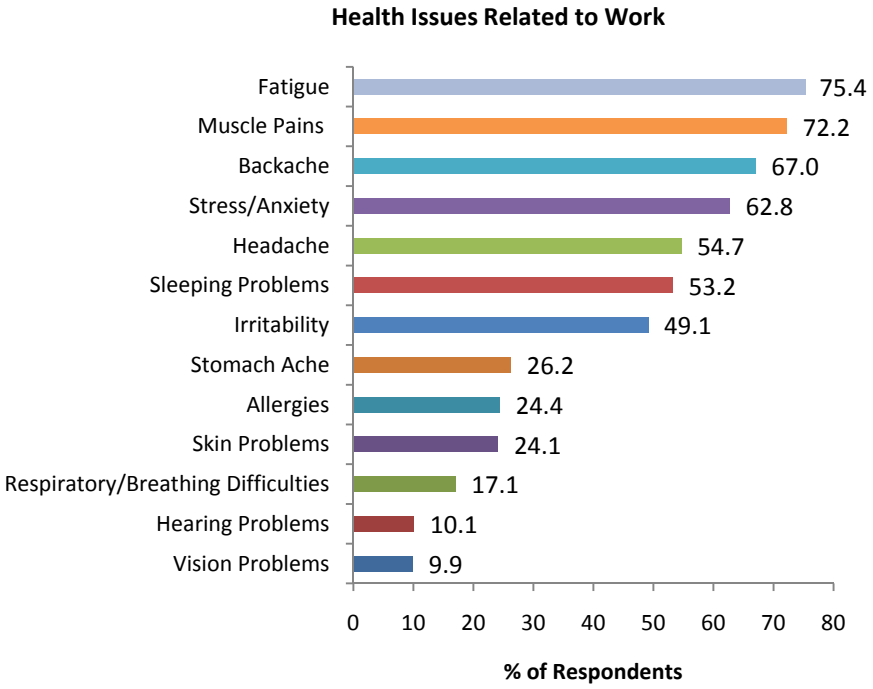

Health and Safety at Risk Because of Work
by Region
% Negative Responses
% Positive Responses
NBANH
Region 7
Region 6
Region 5
Region 4
Region 3
Region 2
Region 1
55.37
24.36
66.81
17.90
52.41
24.05
50.52
32.99
50.00
27.05
61.08
21.35
55.73
23.57
51.96
27.45
0
20
40
60
80
100
% of Participants

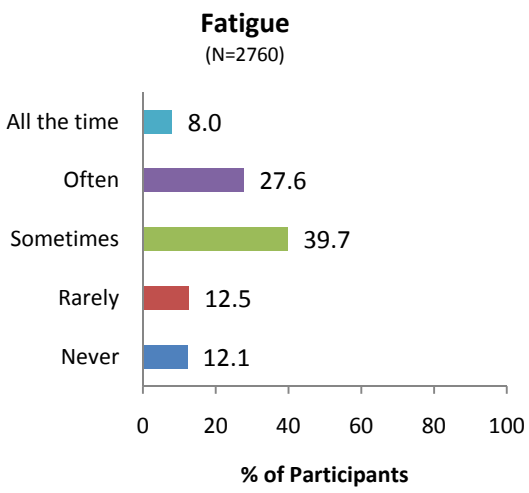
Work-Related Health Issues

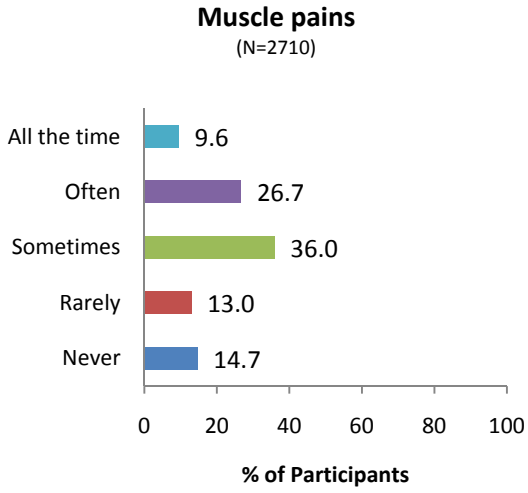
Participants were also asked to provide information regarding various **health issues that they are experiencing that they believe are related to their work**. Among the top work-related health issues at NBANH, respondents reported experiencing the following issues at some point due to their work (either "all the time", "often", or "sometimes"):

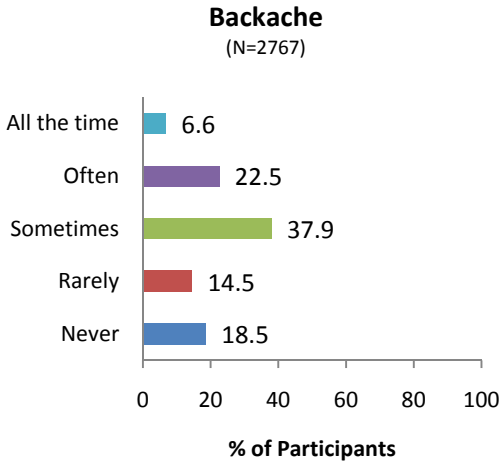
- **75.4%** experience work-related fatigue
- **72.2%** experience work-related muscle pain
- **67%** experience work-related backache
- **62.8%** experience work-related stress / anxiety
- **54.7%** experience work-related headaches

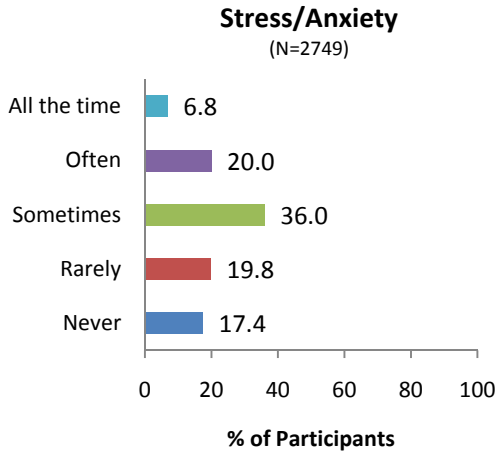
Following are their responses:

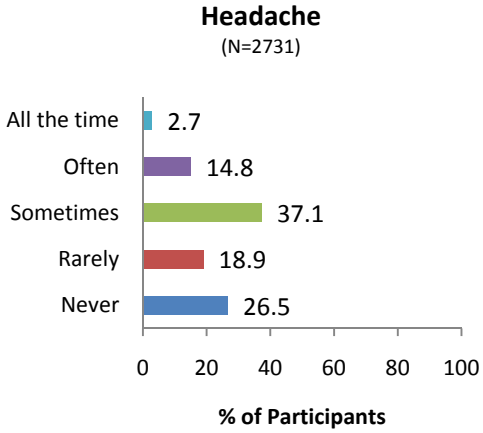


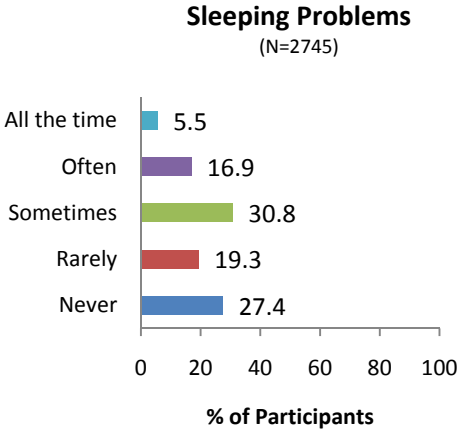


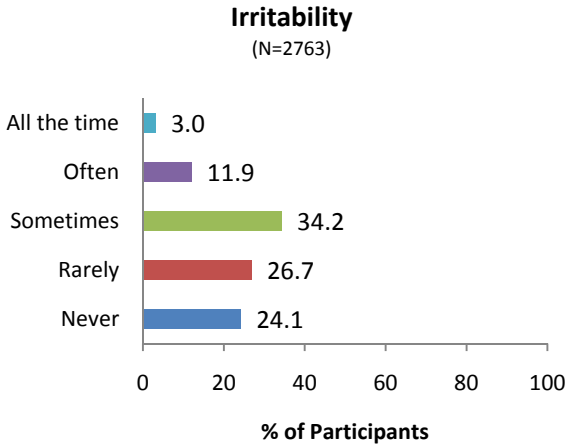


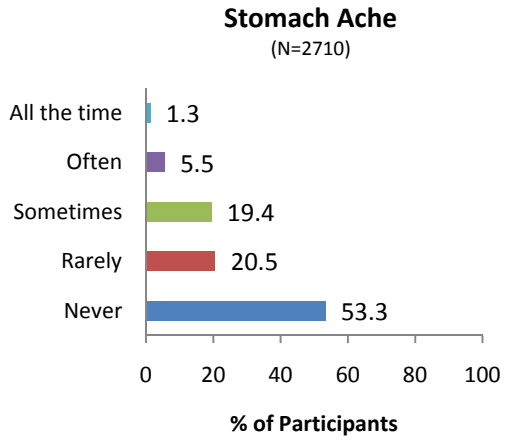


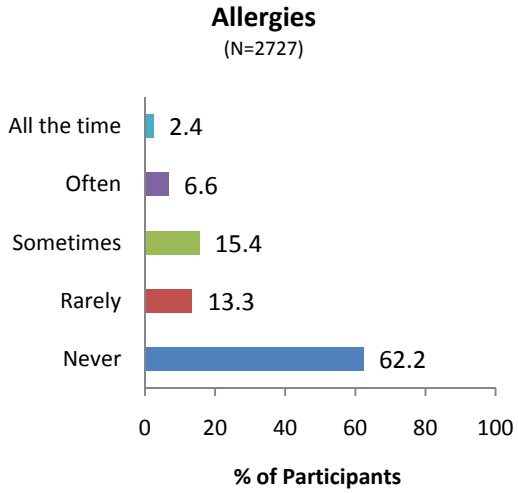


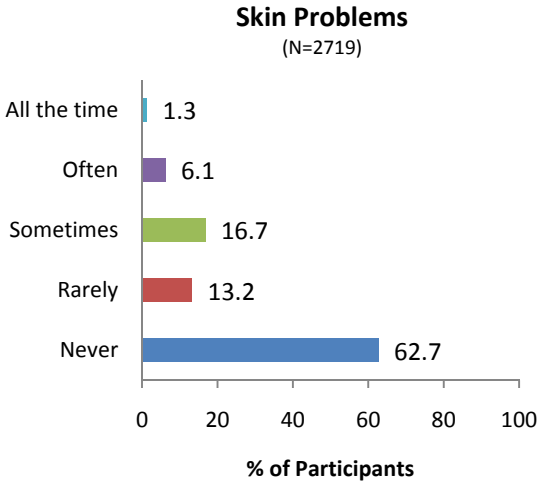


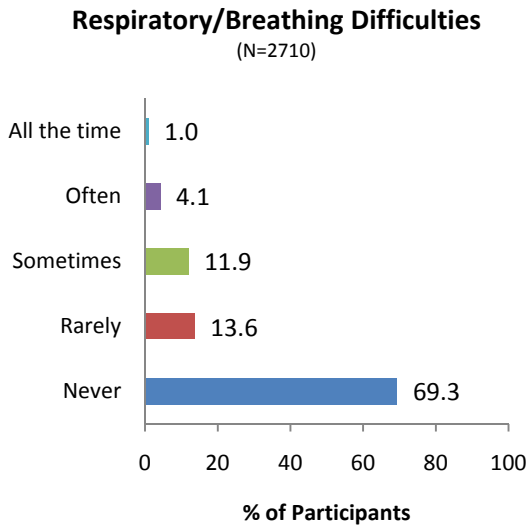


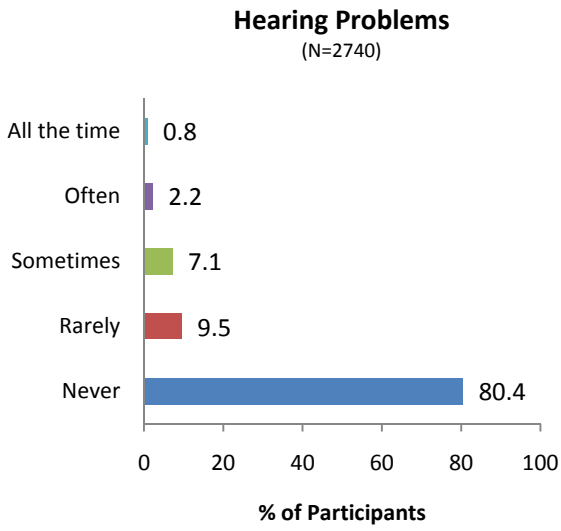


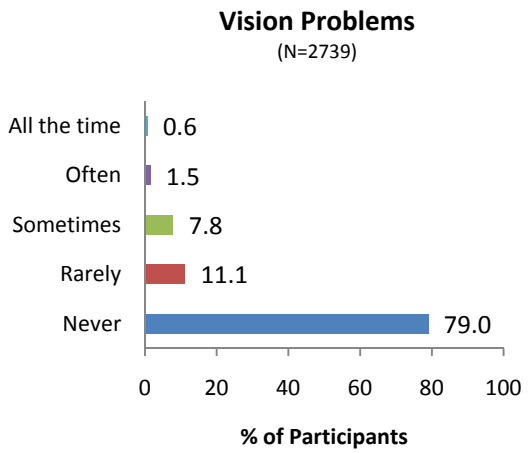






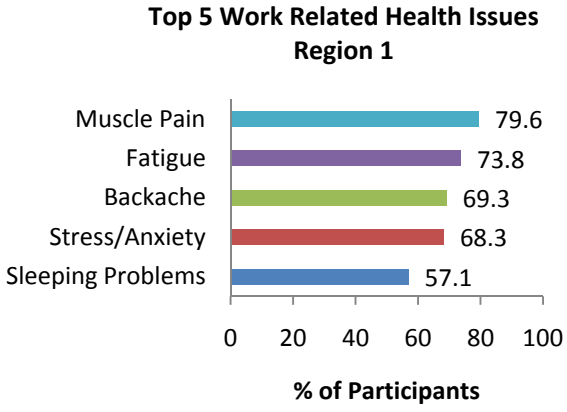


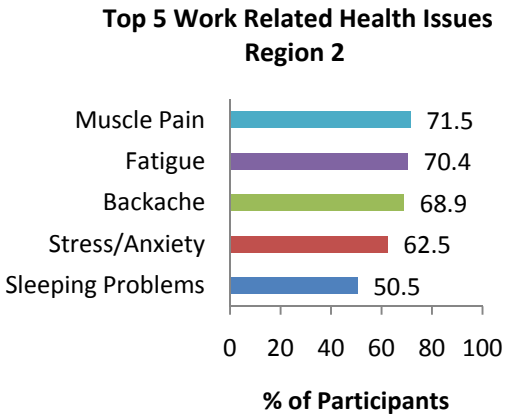


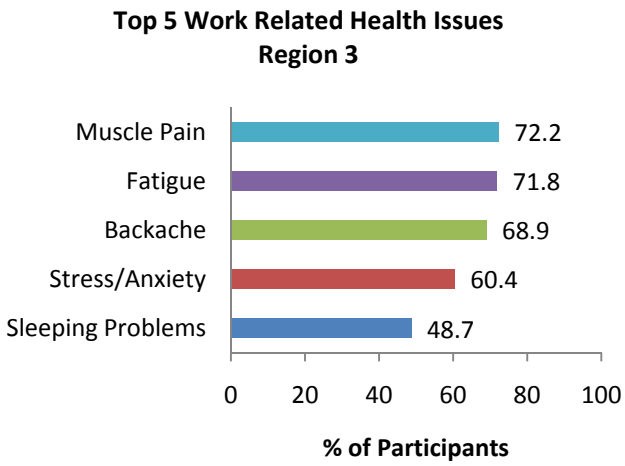


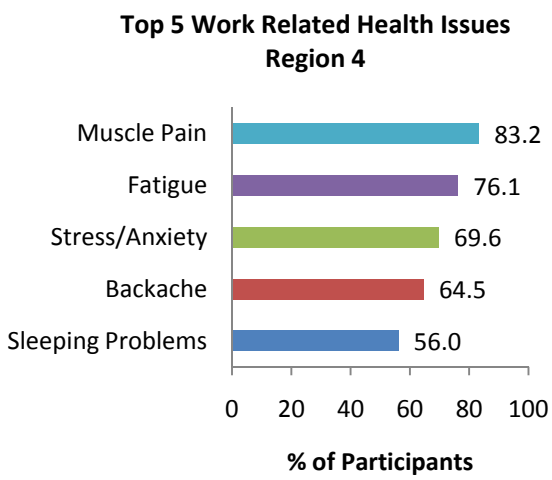
Looking at NBANH's top 5 health issues that are being experienced by respondents' at least 'sometime' and may be related to work, by region, the following results are revealed:

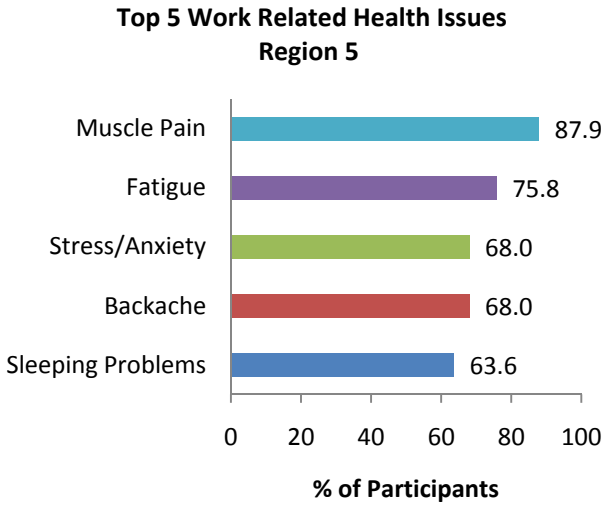
- Across all regions, **fatigue** and **muscle pains** are the most predominant health issues related to work
- **Region 5** had the highest percentage of participants experiencing muscle pain (**87.9%**), fatigue (**75.8%**), backache (**68%**) and sleeping problems (**63.6%**)
- **Region 4** had the highest percentage of participants experiencing stress/anxiety (**69.6%**)

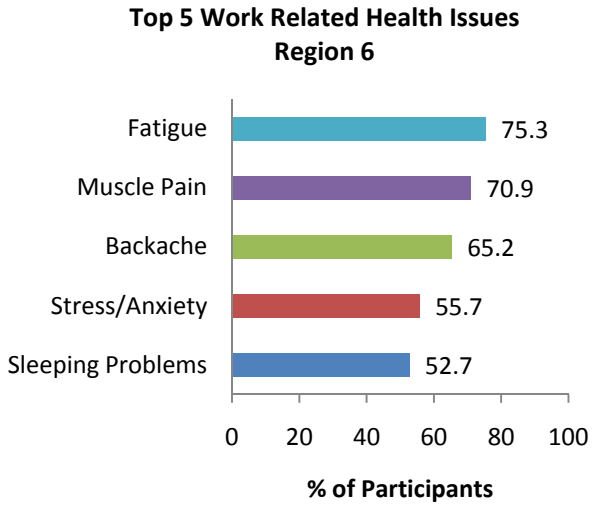


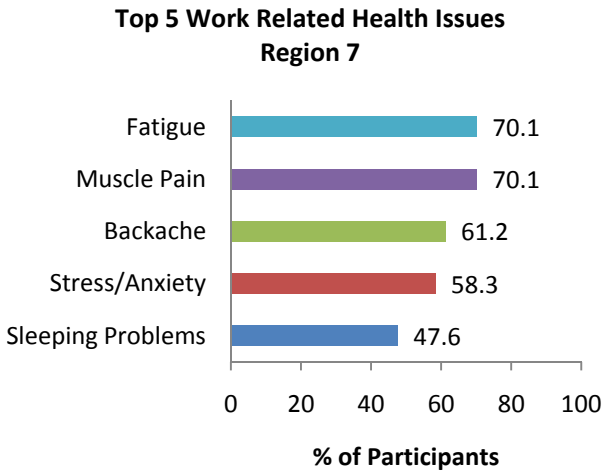












Absence & Productivity

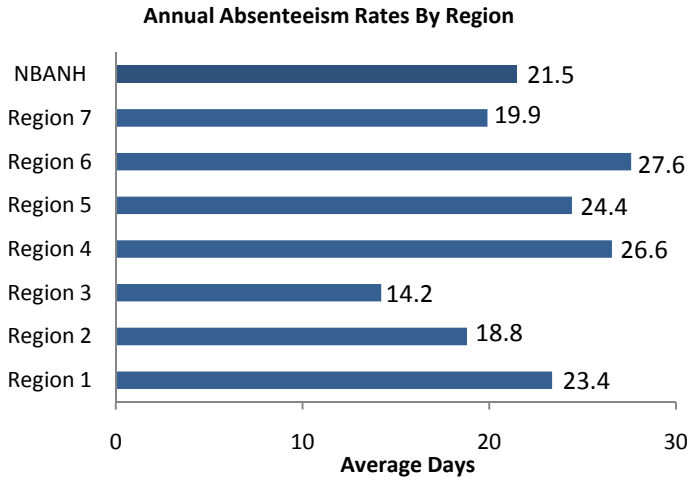
Absence and productivity are key indicators of health, which have considerable impact on business outcomes. Accordingly, participants were also asked to self-report the number of days they were absent from work in the past 4 weeks due to "personal illness" or "other" reasons. In addition, participants were asked to self-report the extent to which physical and mental health problems resulted in a decline in contributions to work and life over the past 4 weeks. These questions helped glean valuable health-related absence and productivity data for NBANH:

- The average annual self-reported absence rate for NBANH is **21.16 days**[5]
- **40.1%** of respondents indicated they **accomplished less at work** in the past 4 weeks due to **emotional problems**
- **48.9%** of respondents indicated they **accomplished less at work** in the past 4 weeks due t**o physical problems**

The Statistics Canada work absences rate (2009) for the healthcare and social assistance sector is **14.1 days.**

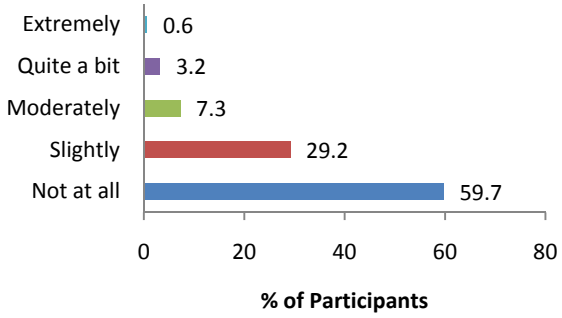
Regional results revealed that:

- Among the **highest rates of absence** were, **Region 6** with **27.6** days, followed by **Region 4** with **26.6** days, **Region 5** with **24.4** days, and **Region 1** with **23.4** days—all above the NBANH norm
- Among the **lowest rates of absence** were, **Region 3**, with a notably lower average of **14.2** days, followed by Region 2 with **18.8** days, and **Region 7** with **19.9** days—all below the NBANH norm
- **52.4%** of respondents in **Region 4** indicated that they **accomplished less at work** in the past 4 weeks due to **emotional problems,** followed by **42.1% in Region 1**, and **41.7% in Region 6**—all above the norm for NBANH
- **55.4%** of respondents in **Region 4** indicated that they **accomplished less at work** in the past 4 weeks due to **emotional problems,** following by **46.4% in Region 1**, **45.8% in Region 6**, and **45.5% in Region 5**—all above the norm for NBANH

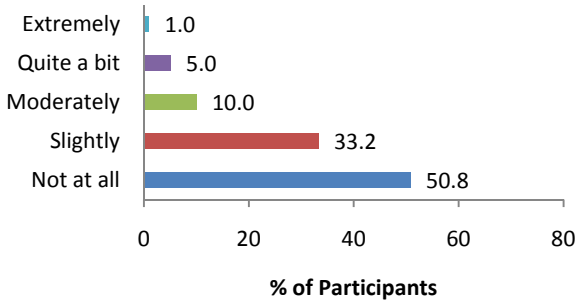


[5] Absenteeism was reported for the last 4 works and annualized to reflect a 12-month absenteeism rate.

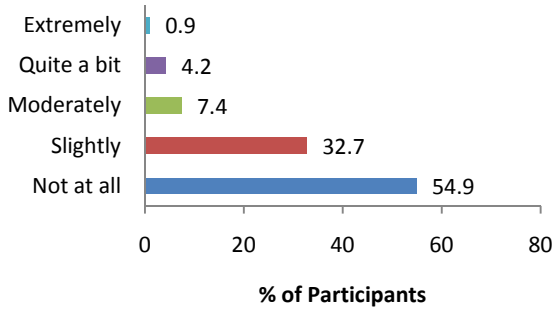
During the past 4 weeks, to what extent have you accomplished less than you would like in your work as a result of emotional problems
(N=2795)



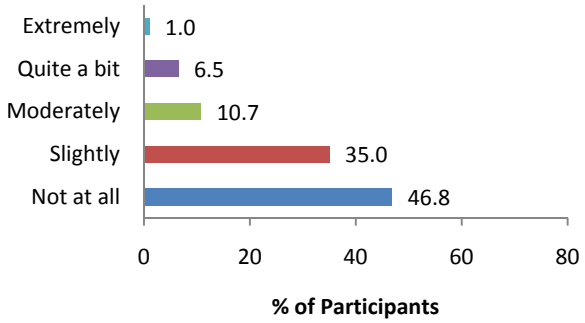
During the past 4 weeks, to what extent have you accomplished less than you would like in your daily activities as a result of emotional problems
(N=2796)



During the past 4 weeks, to what extent have you accomplished less than you would like in your work as a result of your physical health
(N=2789)

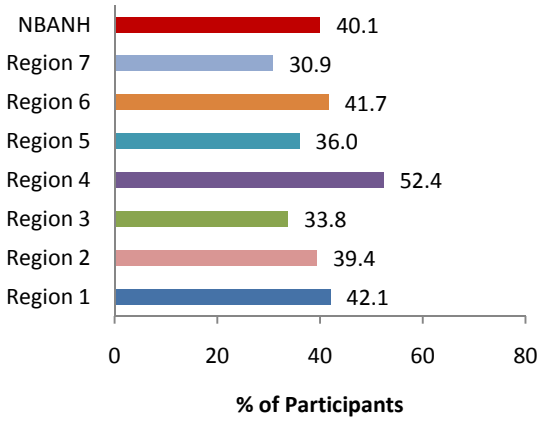


During the past 4 weeks, to what extent have you accomplished less than you would like in your daily activities as a result of your physical health
(N=2788)

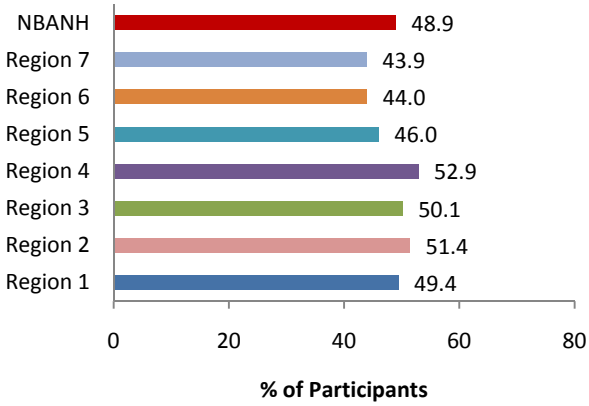


The Following charts show the proportion of respondents indicating that they accomplished less at work and in life, to some level (i.e.: those who reported 'slightly', 'moderately', 'quite a bit', or 'extremely'), in the past 4 weeks due to emotional and physical problems:

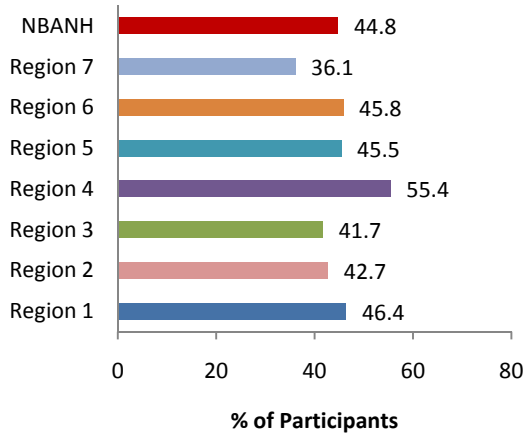
During the past 4 weeks, to what extent have you accomplished less than you would like in your work as a result of emotional problems - By Region



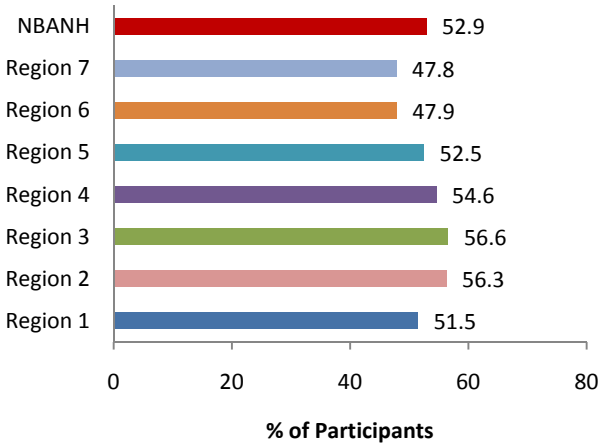
During the past 4 weeks, to what extent have you accomplished less than you would like in your daily activities as a result of emotional problems - By Region



During the past 4 weeks, to what extent have you accomplished less than you would like in your work as a result of your physical health - By Region



During the past 4 weeks, to what extent have you accomplished less than you would like in your daily activities as a result of your physical health - By Region



Healthy Lifestyle

The lifestyle risk factors assessed in the survey included the following:

- Weight and body shape
- Healthy eating
- Physical activity
- Smoking
- Alcohol Consumption
- Stress
- Sleep

Risk Factor Prevalence

The overall lifestyle risk profile is provided below. This chart indicates that the most prevalent high risk lifestyle factors are weight and lack of physical activity.

RISK FACTORS	Low Risk %	Medium Risk %	High Risk %
Body Mass Index (weight)	34.50%	32.70%	32.80%
Healthy Eating	31.10%	50.60%	18.20%
Physical Activity	55.80%	12.70%	31.60%
Smoking	73.90%	4.20%	22.00%
Alcohol Consumption	80.10%	N/A	19.90%
Stress	33.70%	48.60%	17.60%
Sleep	56.90%	34.50%	4.70%

Weight Management

The BMI is a ratio of weight-to-height. Research studies in large groups of people have shown that the BMI can be classified into ranges associated with health risk. There are four categories of BMI ranges in the Canadian weight classification system. These are:

- underweight (BMI less than 18.5),
- normal weight (BMIs 18.5 to 24.9),
- overweight (BMIs 25 to 29.9), and
- obese (BMI 30 and over).

The formula to calculate BMI is: BMI = weight in kilograms / (height in metres)^2

Most adults with a high BMI (overweight or obese) have a high percentage of body fat. Extra body fat is associated with increased risk of health problems such as diabetes, heart disease, high blood pressure, gallbladder disease and some forms of cancer. A low BMI (underweight) is associated with health problems such as osteoporosis, undernutrition and eating disorders.

The risk of developing weight-related health problems increases the further one's BMI falls outside the 'normal weight' category. The classification system may underestimate or overestimate health risks in certain adults, such as, highly muscular adults, adults who naturally have a very lean body build, young adults who have not reached full growth, and adults over 65 years of age. Very muscular adults, such as athletes, may have a low percentage of body fat but a large amount of muscle tissue. This can result in a BMI in the overweight range which may over estimate the risk of developing health problems.

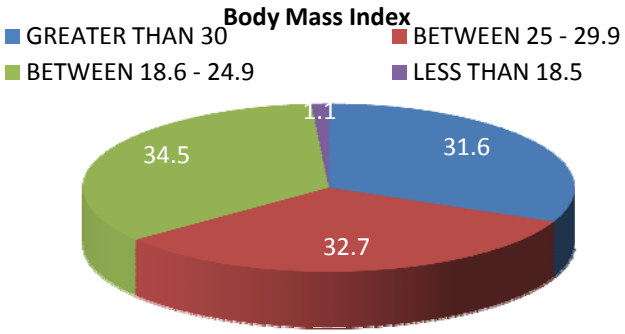
Self-reported height and weight were computed to create a BMI score. Further information regarding body type and future weight management plans were also assessed. As the graphs below indicate:

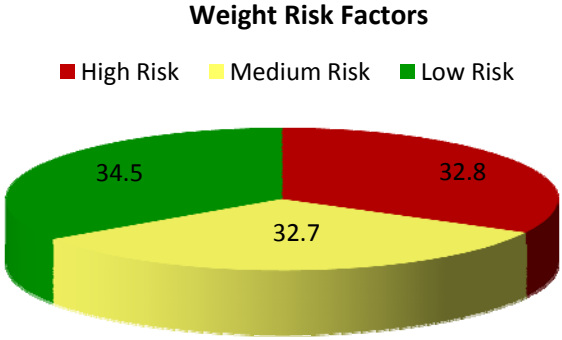
- Almost one in three respondents **(31.6%)** are living with obesity (BMI>30), and a further **32.7%** are overweight (BMI between 25-29.9), for a combined total of **64.3%** at-risk
- **63%** of respondents carry their excess weight around the midsection/abdomen, the area which has greater impact on morbidity compared to the lower half of the body

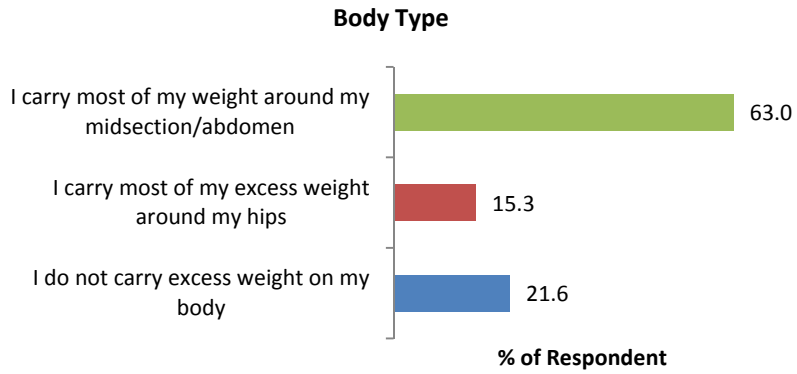
According to the CCHS (2007), **48.5%** of all Canadian adults (over 18yrs) or overweight (BMI between 25-29.9) or obese (BMI>30).

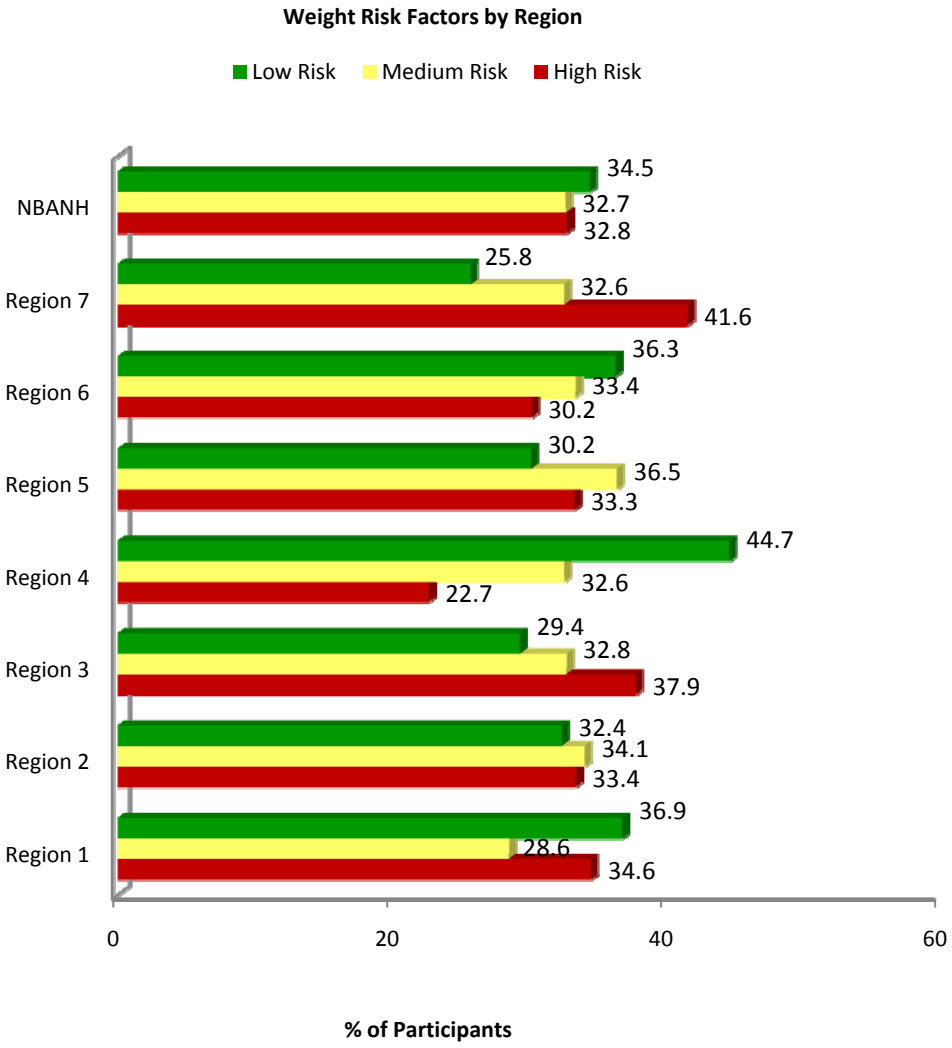
Regional results observed were:

- **Region 7** had the highest percentage of participants with high weight risk factor (**41.6%**) followed by **region 3** (**37.9%**)
- **Region 5** had the highest percentage of participants with medium weight risk factor (**36.5%**) followed by **region 2** (**34.1%**)
- **Region 4** had the highest proportion of low risk (**44.7%**) for weight





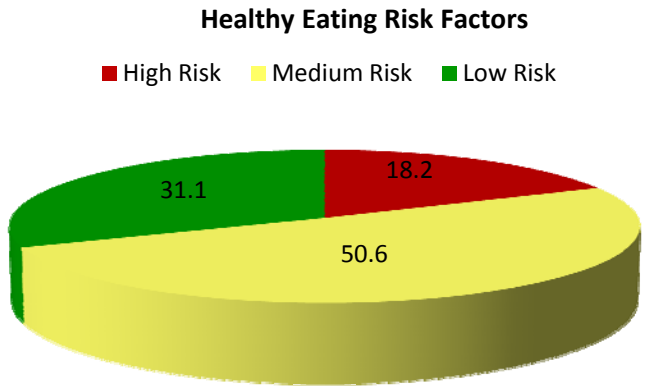

Body Type
I carry most of my weight around my midsection/abdomen
63.0
I carry most of my excess weight around my hips
15.3
I do not carry excess weight on my body
21.6
% of Respondent


Weight Risk Factors by Region
Low Risk
Medium Risk
High Risk
NBANH
34.5
32.7
32.8
Region 7
25.8
32.6
41.6
Region 6
36.3
33.4
30.2
Region 5
30.2
36.5
33.3
Region 4
44.7
32.6
22.7
Region 3
29.4
32.8
37.9
Region 2
32.4
34.1
33.4
Region 1
36.9
28.6
34.6
0
20
40
60
% of Participants

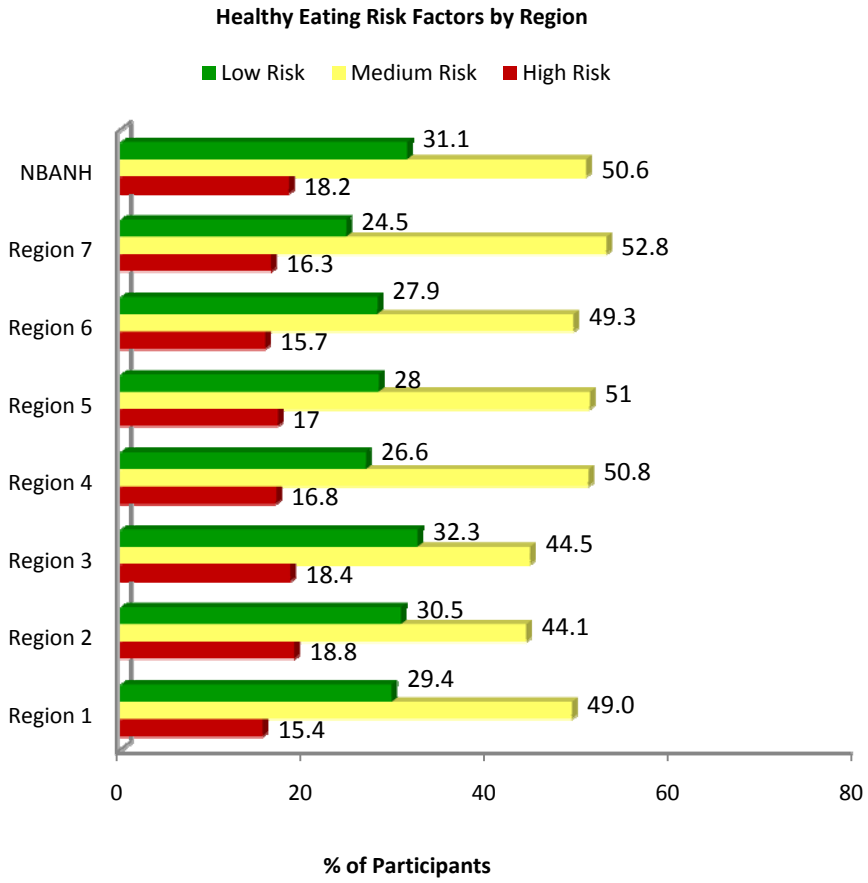
Healthy Eating

Participants were asked to provide information about their dietary habits. Participants were provided with a list of healthy eating guidelines and were asked to respond how often they followed each of those recommendations. Answers ranged from 1= never to 5 = all the time. These responses can be observed in "Table 1: Recommended Healthy Eating Guidelines". These responses were also aggregated into Healthy Eating Risk Factors.

- **18.2%** of respondents are at high risk due to their eating habits, and about **50%** more are at medium risk
- **Region 2** has the greatest proportion participants at high risk due to their eating habits (**18.8%**), followed by **Region 3** (**18.4%**)
- **51%** of **Region 5** participants and **50.8%** of **Region 4** participants are at medium risk for their eating habits



Recommended Healthy Eating Guideline	Never	Rarely	Sometimes	Often	All the time
1)Eat at least one dark green (ie. spinach) and one orange vegetable (ie. carrots) each day.	2.2	8.4	26.7	42.9	19.8
2) Choose vegetables and fruit prepared with little or no added fat, sugar or salt.	1.8	6.7	23.2	45.7	22.7
3) Have vegetables and fruit more often than juice.	1.5	7.4	18.9	41.5	30.6
4) Make at least half of my grain products whole grain each day.	4.2	12.2	25	33.2	25.4
5) Choose grain products that are lower in fat, sugar or salt.	4.1	10.2	23.1	36.5	26.1
6) Drink skim, 1%, or 2% milk each day.	10.4	9.3	13.2	20.3	46.8
7) Select lower fat milk products (low fat cheese, low fat yogurt).	6	8.5	19.8	29.1	36.6
8) Have meat alternatives such as beans, lentils and tofu.	30.4	26.1	25.4	12.1	6
9) Eat at least two servings of fish each week	11.4	23.4	32.9	20.8	11.5
10) Select lean meat and alternatives prepared with little or no added fat or salt.	3	7.3	24.2	39.2	26.2
11) Use a small amount (2 to 3 tablespoons) of unsaturated fat each day (e.g. in cooking, salad dressings...	3.2	9	30.2	36.1	21.5



Physical Activity

A population's physical activity (or inactivity) can be described in different ways. The two most common ways are

- to estimate a population's mean or median physical activity using a continuous indicator such as MET-minutes per week or time spent in physical activity, and
- to classify a certain percentage of a population as 'inactive' by setting up a cut point for a specific amount of physical activity.

Participants were asked to provide information about their physical activity intensity and frequency. The frequency per week and number of hours per day spent doing physical activities were then aggregated into high, moderate and low intensity.

To get a better understanding of the physical activities that NBANH employees engage in, MET Scores (Metabolic Equivalents) which are commonly used to express the intensity of physical activities, were computed. These MET scores were then converted into low, medium and high intensity physical activity scores.

For the calculation of a categorical indicator, the total time spent in physical activity during a typical week, the numbers of days as well as the intensity of the physical activity are taken into account. There are three levels of physical activity suggested for classifying populations at low, moderate, and high intensity. The criteria for these levels are shown below.

High Intensity (Low Risk)

A person reaching any of the following criteria is classified in this category:

- Vigorous-intensity activity on at least 3 days achieving a minimum of at least 1,500 MET-minutes/week OR
- 7 or more days of any combination of walking, moderate- or vigorous intensity activities achieving a minimum of at least 3,000 MET-minutes per week.

Moderate Intensity (Medium Risk)

A person not meeting the criteria for the "high" category, but meeting any of the following criteria is classified in this category:

- 3 or more days of vigorous-intensity activity of at least 20 minutes per day OR
- 5 or more days of moderate-intensity activity or walking of at least 30minutes per day OR
- 5 or more days of any combination of walking, moderate- or vigorous intensity activities achieving a minimum of at least 600 MET-minutes per week.

Low Intensity (High Risk)

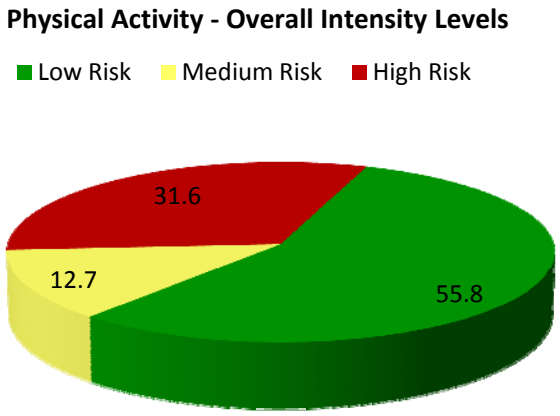
A person not meeting any of the above mentioned criteria falls in this category.

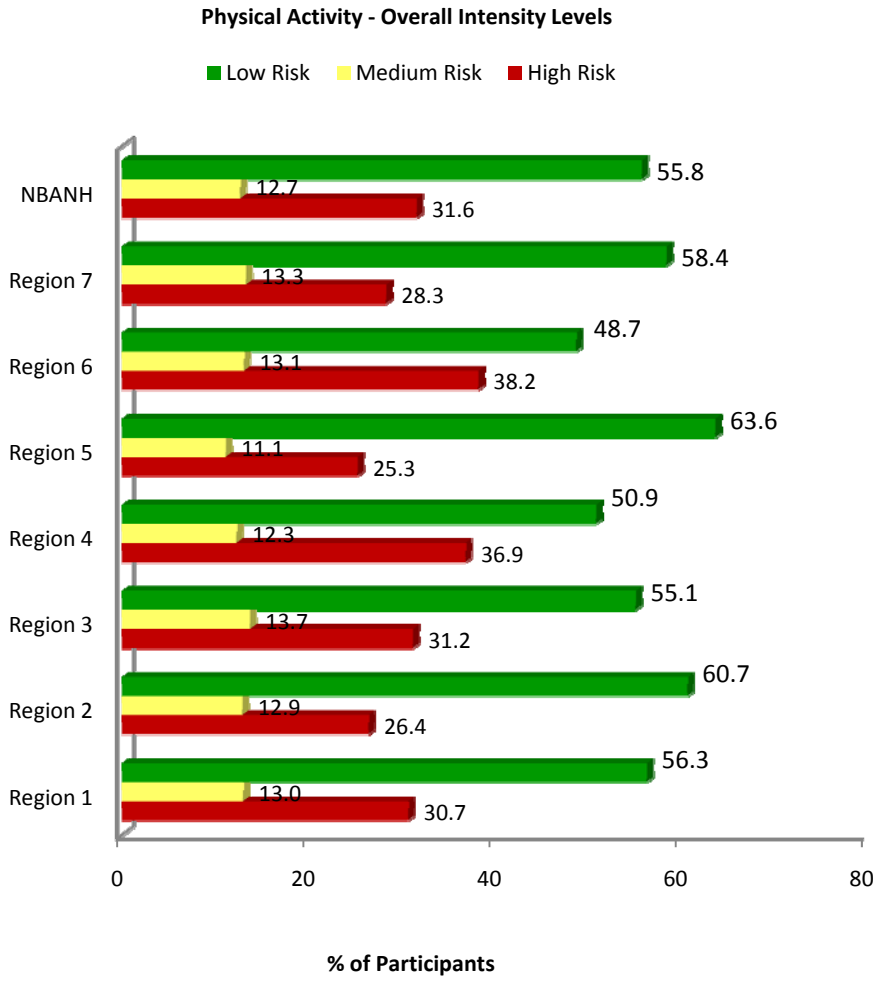
The three intensity levels were then converted into risk levels, whereby:

- High intensity activity = low health risk
- Medium intensity activity = medium health risk
- Low intensity activity = low health risk

As the charts below indicate:

- **31.6%** of respondents are at high risk due to a lack of physical activity, and **12.7%** are at medium risk
- **38.2%** of respondents from **Region 6** are at high risk due to a lack of physical activity, followed by **36.9%** of respondents from **Region 4**



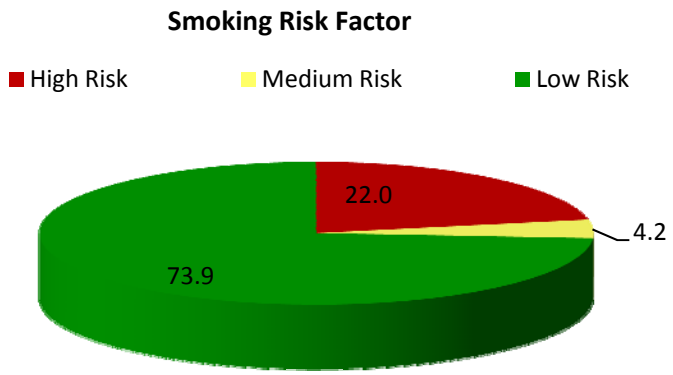


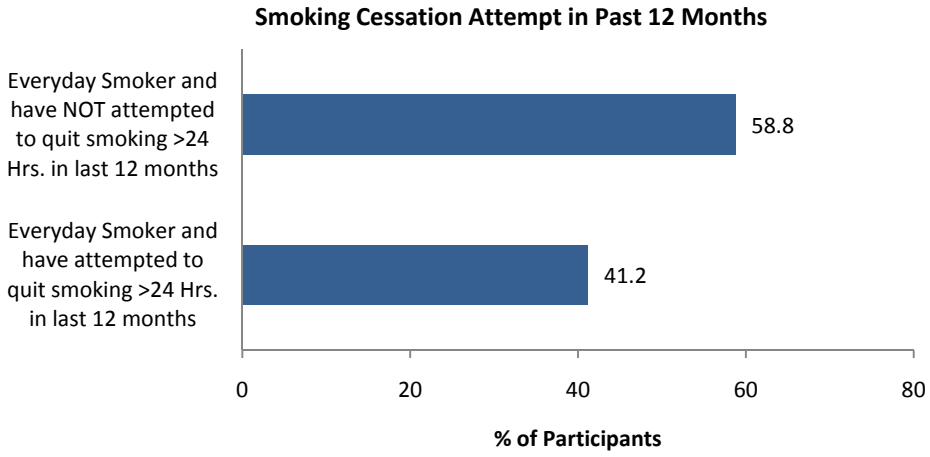
Smoking

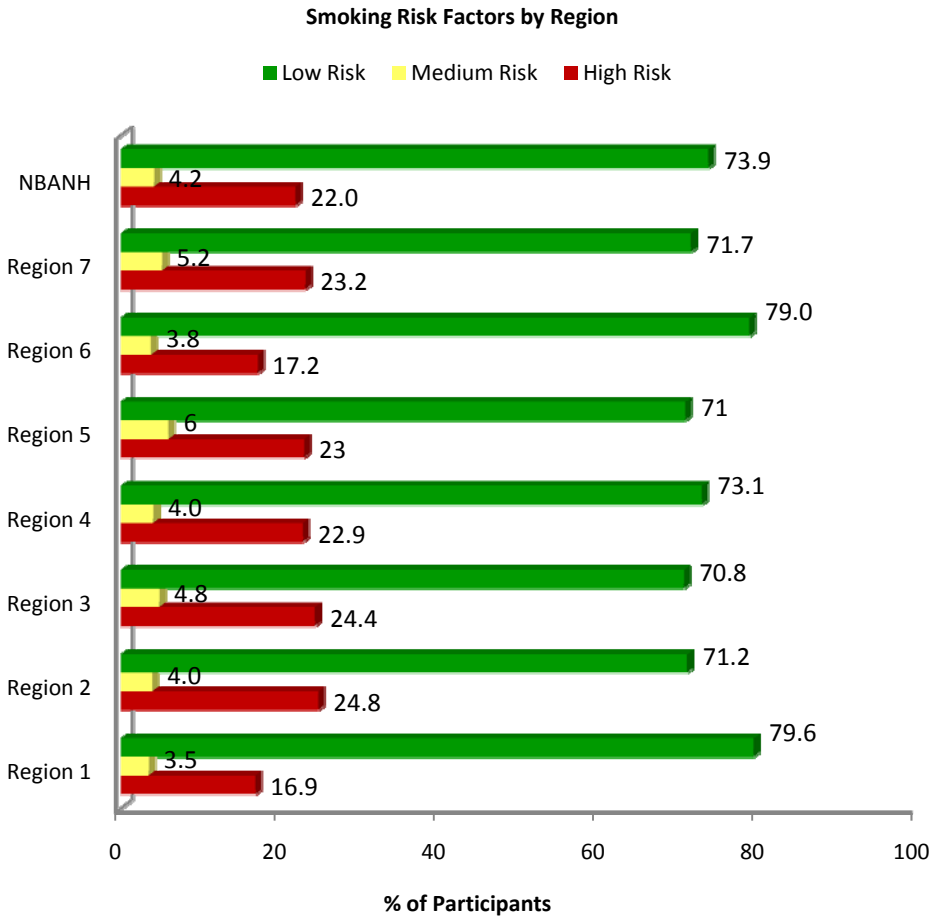
Participants were asked to provide information as to their smoking habits. As the charts below indicate:

- **26.2%** of respondents smoke cigarettes everyday or occasionally
- **58.8%** of the everyday smokers have attempted to quit smoking for 24 hour in the past 12 months.
- The highest percentage of everyday smokers is in **Region 2** (**24.8%**) and **Region 3** (**24.4%**)

According to the CCHS (2007), **21.9%** of Canadians over the age of 12 smoke cigarettes daily or occasionally, while this number increases marginally in New Brunswick to **22%.**


Smoking Risk Factor
High Risk
Medium Risk
Low Risk
22.0
4.2
73.9

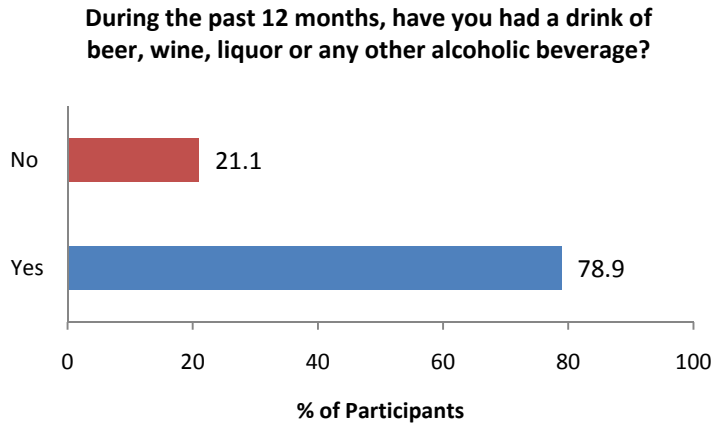

Smoking Cessation Attempt in Past 12 Months
Everyday Smoker and have NOT attempted to quit smoking >24 Hrs. in last 12 months
58.8
Everyday Smoker and have attempted to quit smoking >24 Hrs. in last 12 months
41.2
0
20
40
60
80
% of Participants

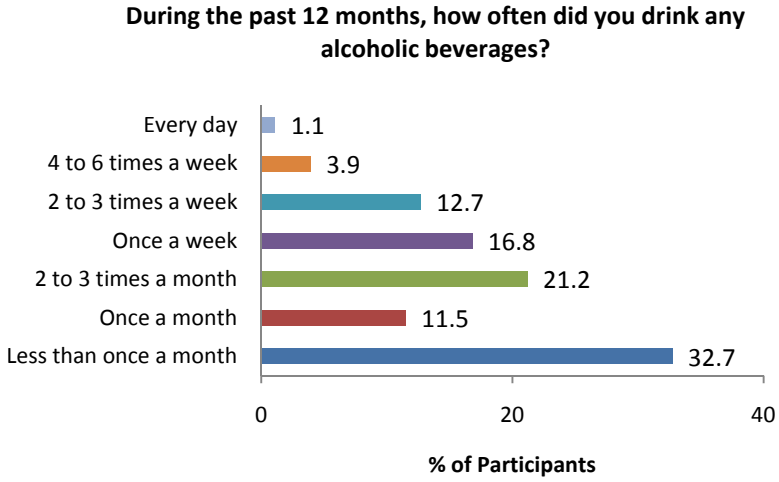

Smoking Risk Factors by Region
Low Risk
Medium Risk
High Risk
NBANH
Region 7
Region 6
Region 5
Region 4
Region 3
Region 2
Region 1
73.9
4.2
22.0
71.7
5.2
23.2
79.0
3.8
17.2
71
6
23
73.1
4.0
22.9
70.8
4.8
24.4
71.2
4.0
24.8
79.6
3.5
16.9
0
20
40
60
80
100
% of Participants

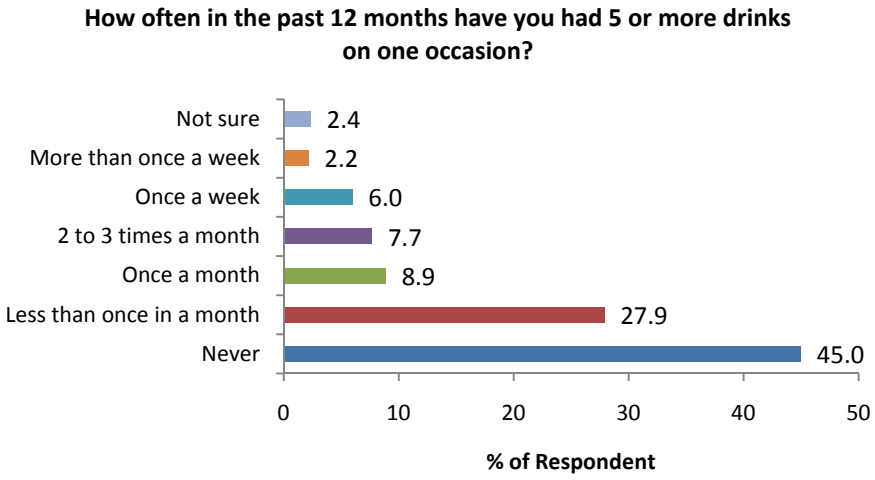
Alcohol Consumption

Participants were asked to provide information as to their alcohol consumption habits. As the below charts indicate:

- **78.9%** of respondents have had a drink in the past 12 months
- **24.8%** have had more than 5 drinks on one occasion at least once a month or more, making them heavy drinkers







Alcohol consumption is a leading contributor to chronic disease. To compute risk scores, participants who answered that they had 5 or more drinks on one occasion at least once a month or more were considered to be at high risk.

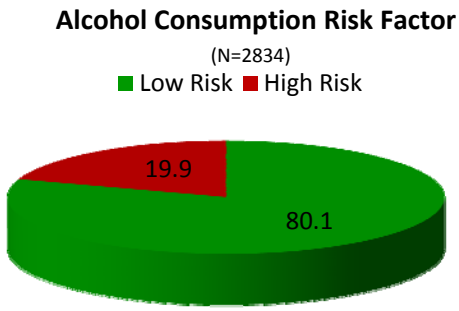
This study followed the recommendations for daily and weekly consumption of alcohol, set out by Cancer Care Ontario and the Centre for Addiction and Mental Health:

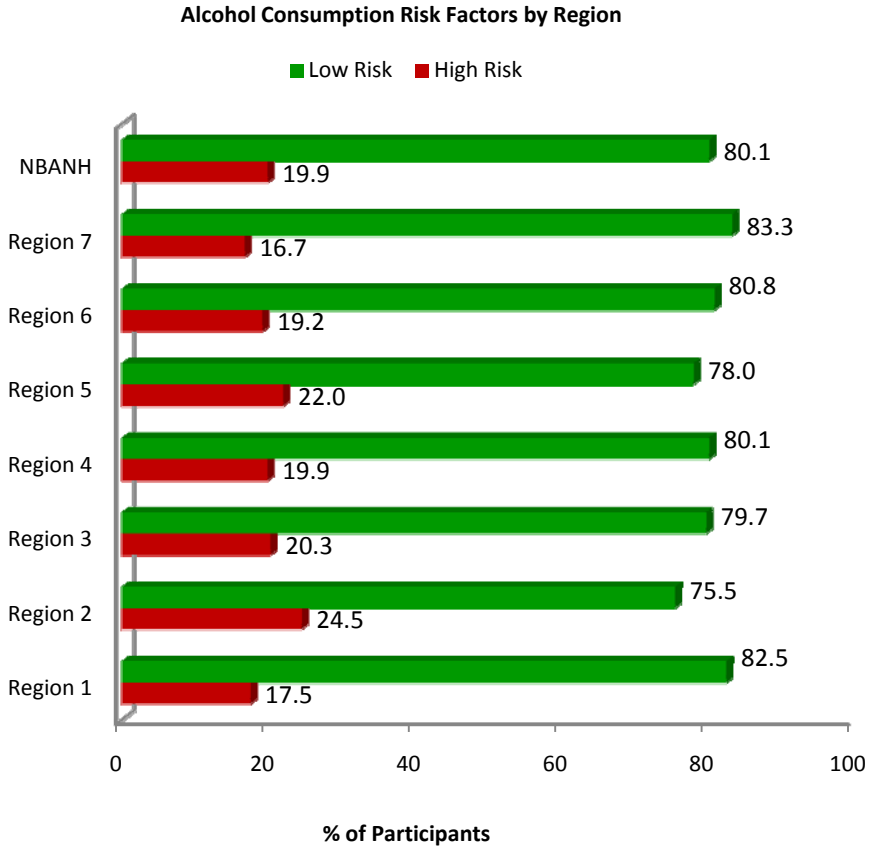
- prevention limiting consumption of alcohol: indicates no more than 1 drink a day for women and no more than 2 drinks a day for men (Cancer Care Ontario)
- low-risk drinking guideline: no more than two drinks per day, with no more than 9 drinks per week for women and no more than 14 per week for men (Centre for Addiction and Mental Health)

Following are the results for alcohol consumption risk factors:

- **19.9%** of respondents are at high risk in their alcohol consumption
- **24.5%** of **Region 2** respondents are at high risk in their alcohol consumption as well as **22% of those** from **Region 5**
- **Region 7** has the lowest proportion of participants at high risk (**16.7%**), followed by **Region 1** (**17.5%)**

According to the CCHS (2008), **24% of men** and **10% of women** reported heavy drinking, defined as having five or more drinks per occasion at least 12 times a year. In New Brunswick, it was reported that **19.2%** of respondents could be qualified as 'heavy drinkers'.


Alcohol Consumption Risk Factor
(N=2834)
Low Risk
High Risk
19.9
80.1

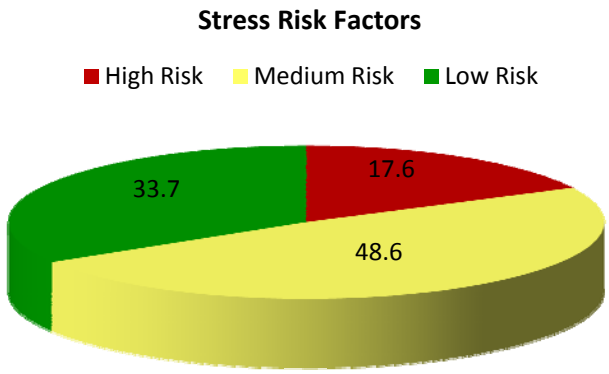

Alcohol Consumption Risk Factors by Region
Low Risk
High Risk
NBANH
80.1
19.9
Region 7
83.3
16.7
Region 6
80.8
19.2
Region 5
78.0
22.0
Region 4
80.1
19.9
Region 3
79.7
20.3
Region 2
75.5
24.5
Region 1
82.5
17.5
0
20
40
60
80
100
% of Participants

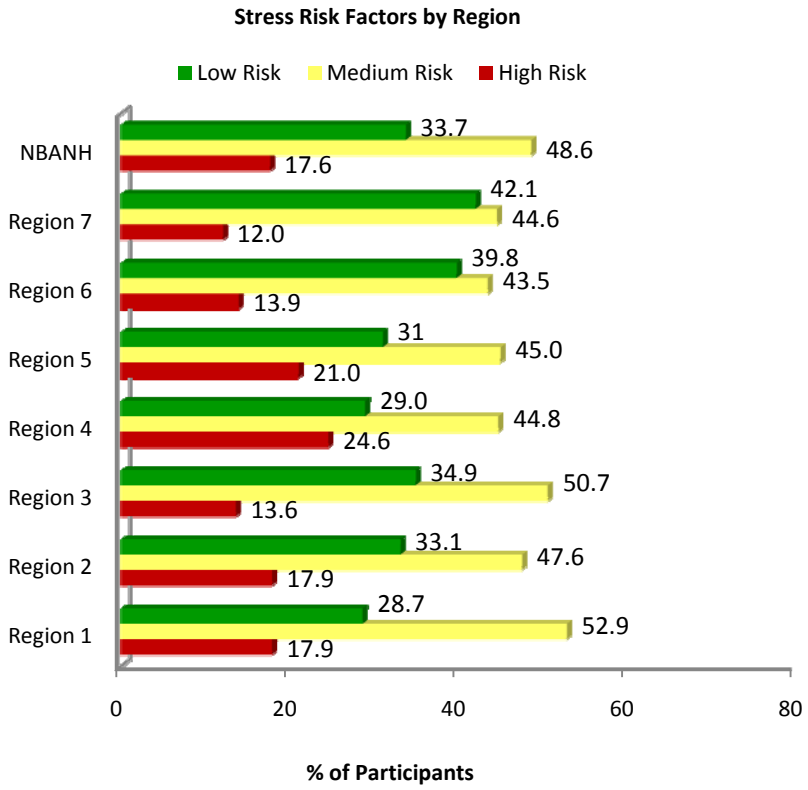
Stress

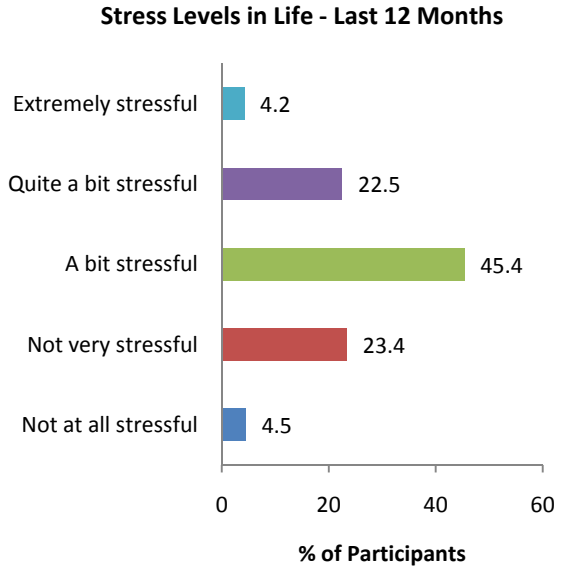
Self reported stress levels at work and in life during the past 12 months were assessed on a 5 point scale from 'not at all stressful' to 'extremely stressful'. As the graphs below indicate:

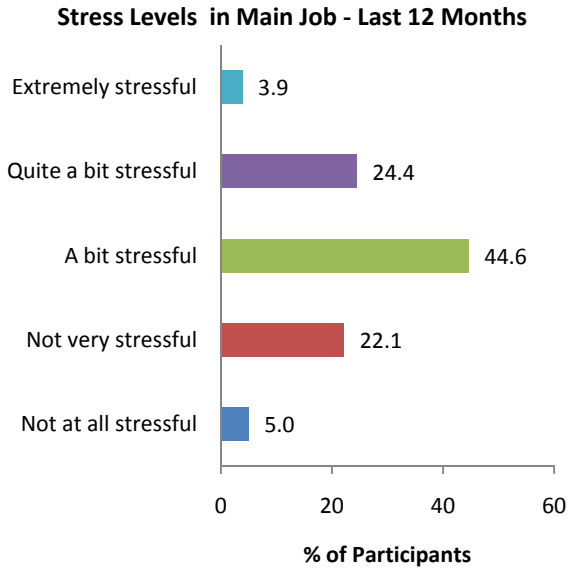
- On average, **17.6%** of respondents are at high risk due to the stress in their personal or working lives in the past 12 months
- The highest percentage of participants who are at high risk due to overall stress was in **Region 4 (24.6%)** and also **Region 5 (21%)**
- **Participants are reporting greater 'high stress' at work (28.3%) than in their lives (26.8%)**
- **26.7%** rate their stress level in their job in the past 12 months as 'quite a bit' or 'extremely stressful'
- **28.3%** rate their stress level in their personal life in the past 12 months as 'quite a bit' or 'extremely stressful'

According to the CCHS (2007), 22.4% of Canadians over the age of 12 rate their life stress at 'quite a bit'.

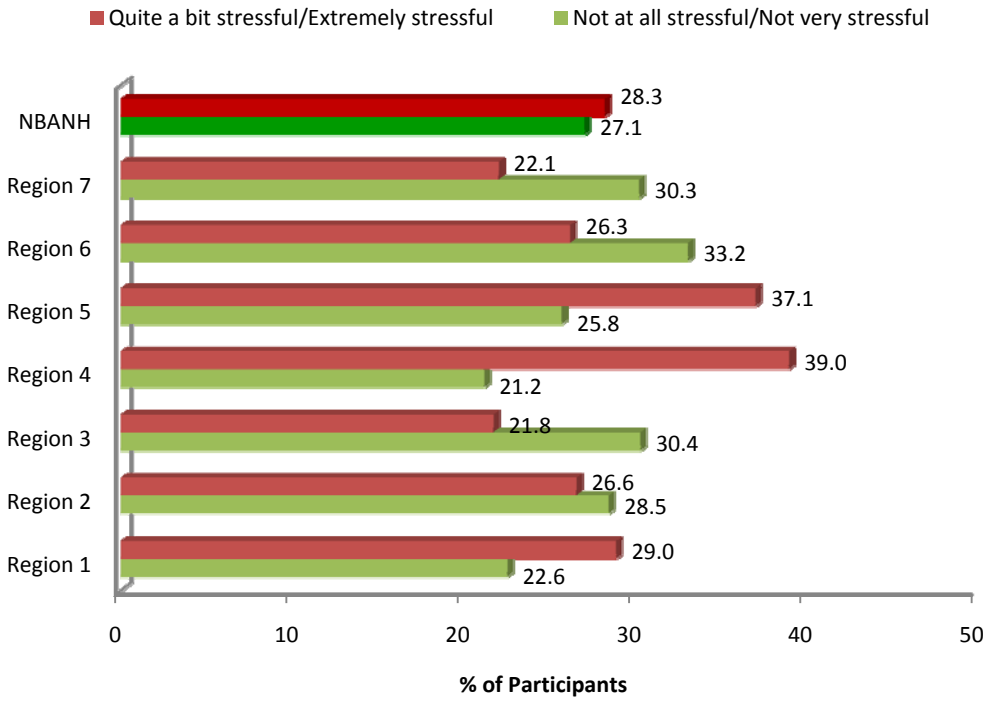



Stress Risk Factors by Region
Low Risk
Medium Risk
High Risk
NBANH
Region 7
Region 6
Region 5
Region 4
Region 3
Region 2
Region 1
33.7
48.6
17.6
42.1
44.6
12.0
39.8
43.5
13.9
31
45.0
21.0
29.0
44.8
24.6
34.9
50.7
13.6
33.1
47.6
17.9
28.7
52.9
17.9
0
20
40
60
80
% of Participants

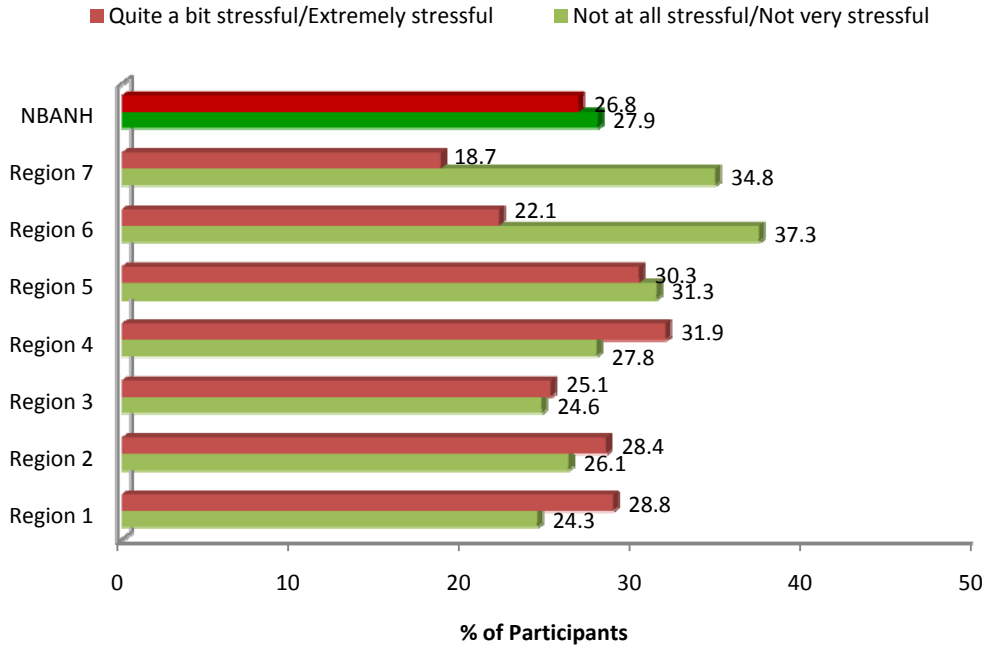

Stress Levels in Life - Last 12 Months
Extremely stressful
Quite a bit stressful
A bit stressful
Not very stressful
Not at all stressful
4.2
22.5
45.4
23.4
4.5
0
20
40
60
% of Participants


Stress Levels in Main Job - Last 12 Months
Extremely stressful
Quite a bit stressful
A bit stressful
Not very stressful
Not at all stressful
3.9
24.4
44.6
22.1
5.0
0
20
40
60
% of Participants

Stress level in main job – last 12 months



Stress level in life – last 12 months



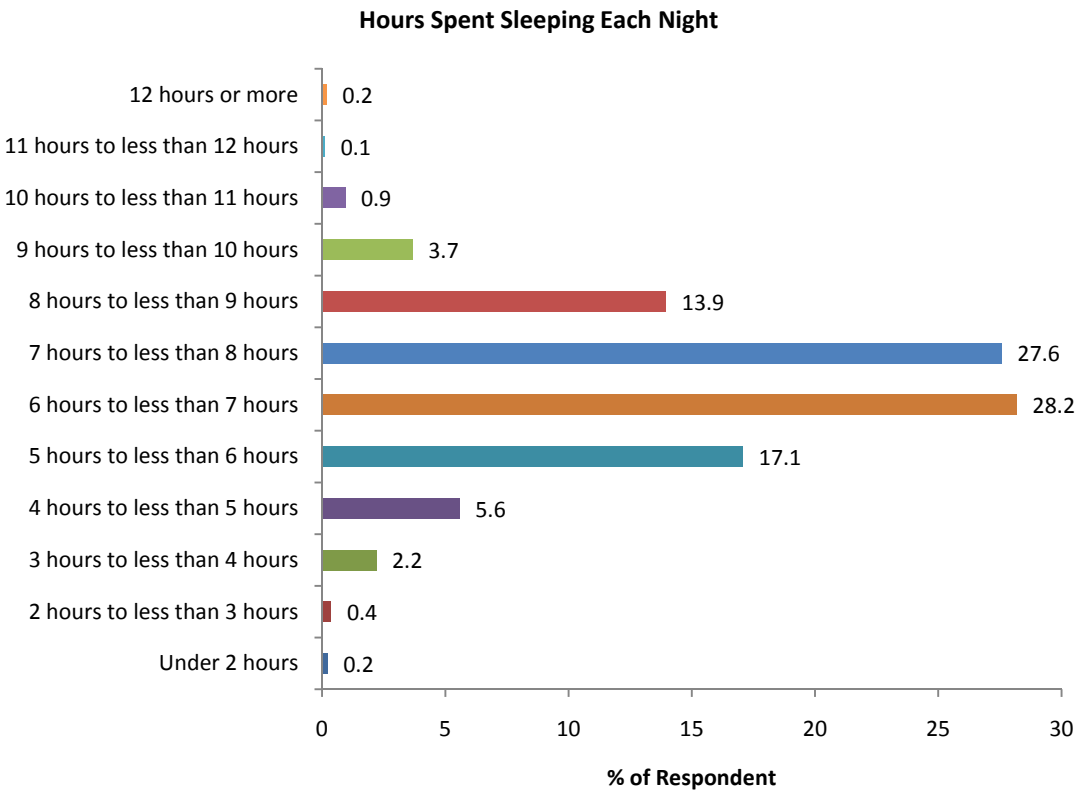
Sleep

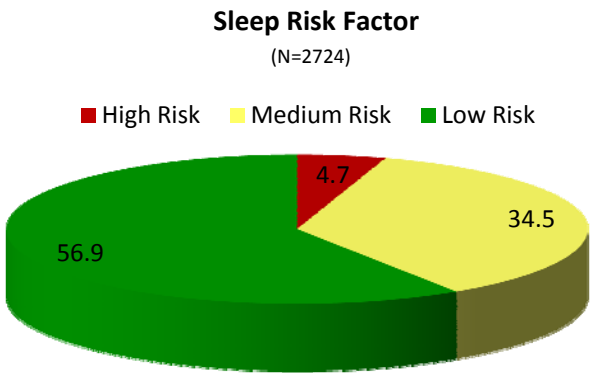
An estimated 3.3 million Canadians age 15 or older have problems getting enough sleep – and that may be affecting their health and quality of life. The 2002 Canadian Community Health Survey found that just under one-fifth (18%) of these people average less than 5 hours of sleep a night.

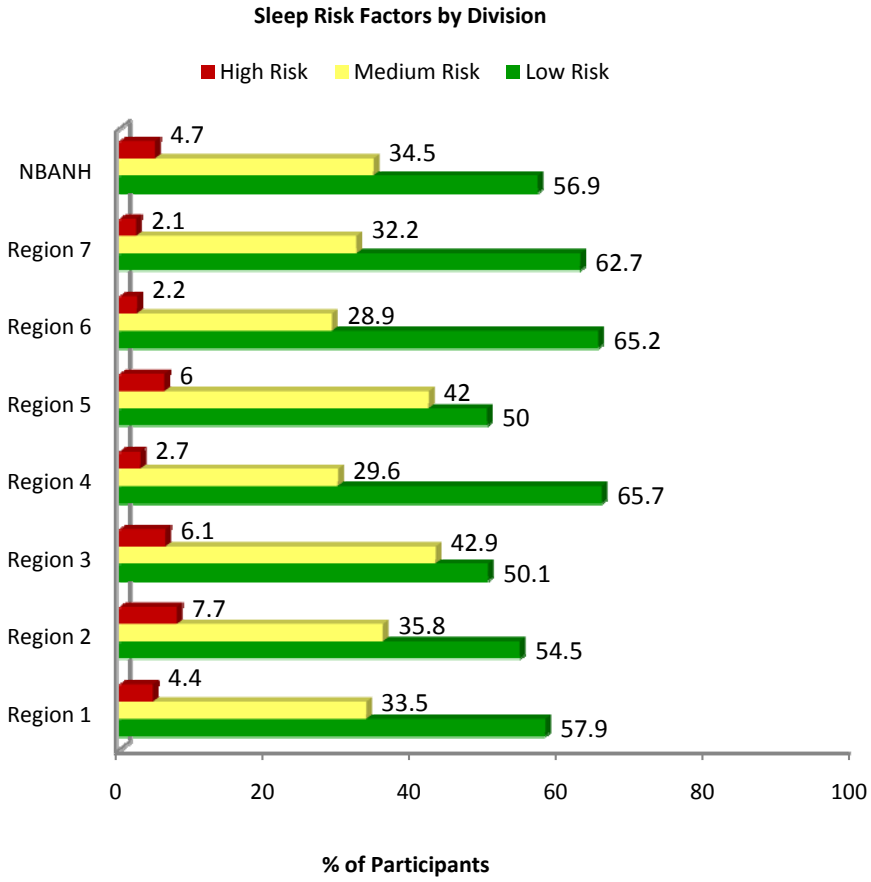
Data collected in 2002 by the Canadian Community Health Survey's study on Mental Health and Well-being reported findings showing that 23% of people who indicated having "quite a bit" of stress or "extreme" amount of daily stress also reported having insomnia.

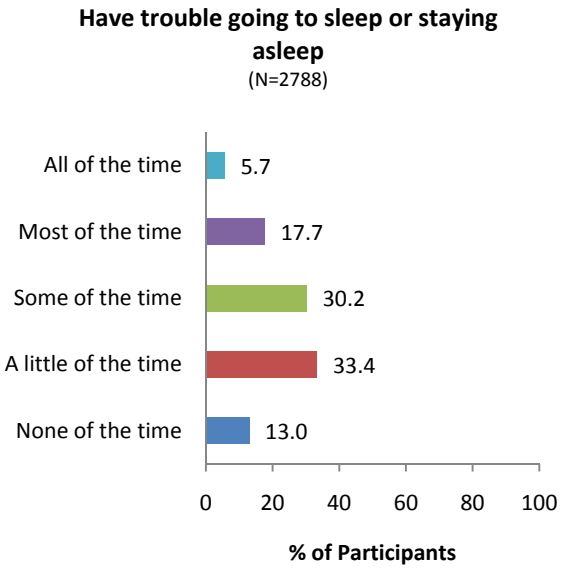
Self-reported sleep patterns were assessed for NBANH participants by number of hours respondents spent sleeping at night, as well as disturbances sleeping. As the graphs below indicate:

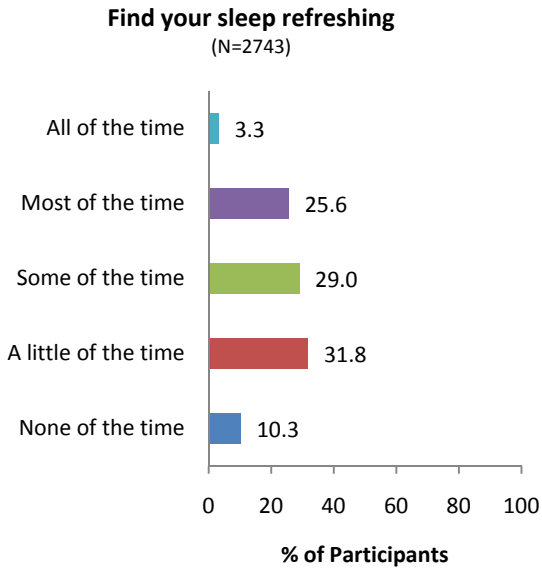
- **8.4%** of respondents report they average **less than 5 hours of sleep a night**
- **53.3 %** of respondents report they average **less than 7 hours of sleep per night**
- **39.2%** of respondents are considered at-risk because of poor sleep quality, with **4.7%** of those being at **high risk**
- **7.7%** of respondents from **Region 2** and **6. 1%** from **Region 3** are at high risk because of poor sleep quality
- **18.6%** of respondents have trouble going to sleep or staying a sleep 'most' or 'all of the time'
- **24.5%** of the respondents find their sleep refreshing 'a little bit' or 'none of the time'
- **6.6%** of participants find it difficult to stay awake when they want to 'most' or 'all of the time'

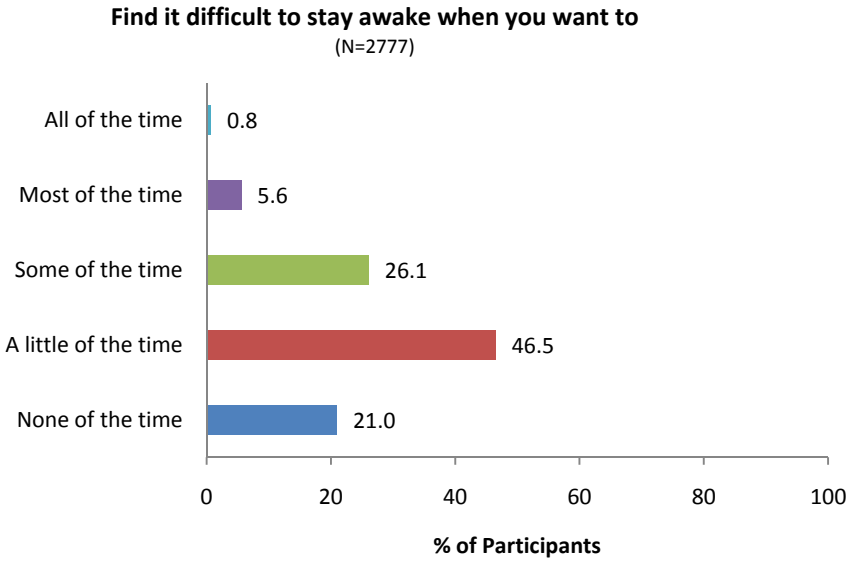



Sleep Risk Factor
(N=2724)
High Risk
Medium Risk
Low Risk
4.7
34.5
56.9


Sleep Risk Factors by Division
High Risk
Medium Risk
Low Risk
NBANH
4.7
34.5
56.9
Region 7
2.1
32.2
62.7
Region 6
2.2
28.9
65.2
Region 5
6
42
50
Region 4
2.7
29.6
65.7
Region 3
6.1
42.9
50.1
Region 2
7.7
35.8
54.5
Region 1
4.4
33.5
57.9
0
20
40
60
80
100
% of Participants







Health and Wellness Interests

To assist NBANH to plan its wellness program, participants were asked about their interests in wellness programs or services as well as their likelihood to participate.

The top 5 areas where participants report to be most interested in receiving health and wellness program and services are:

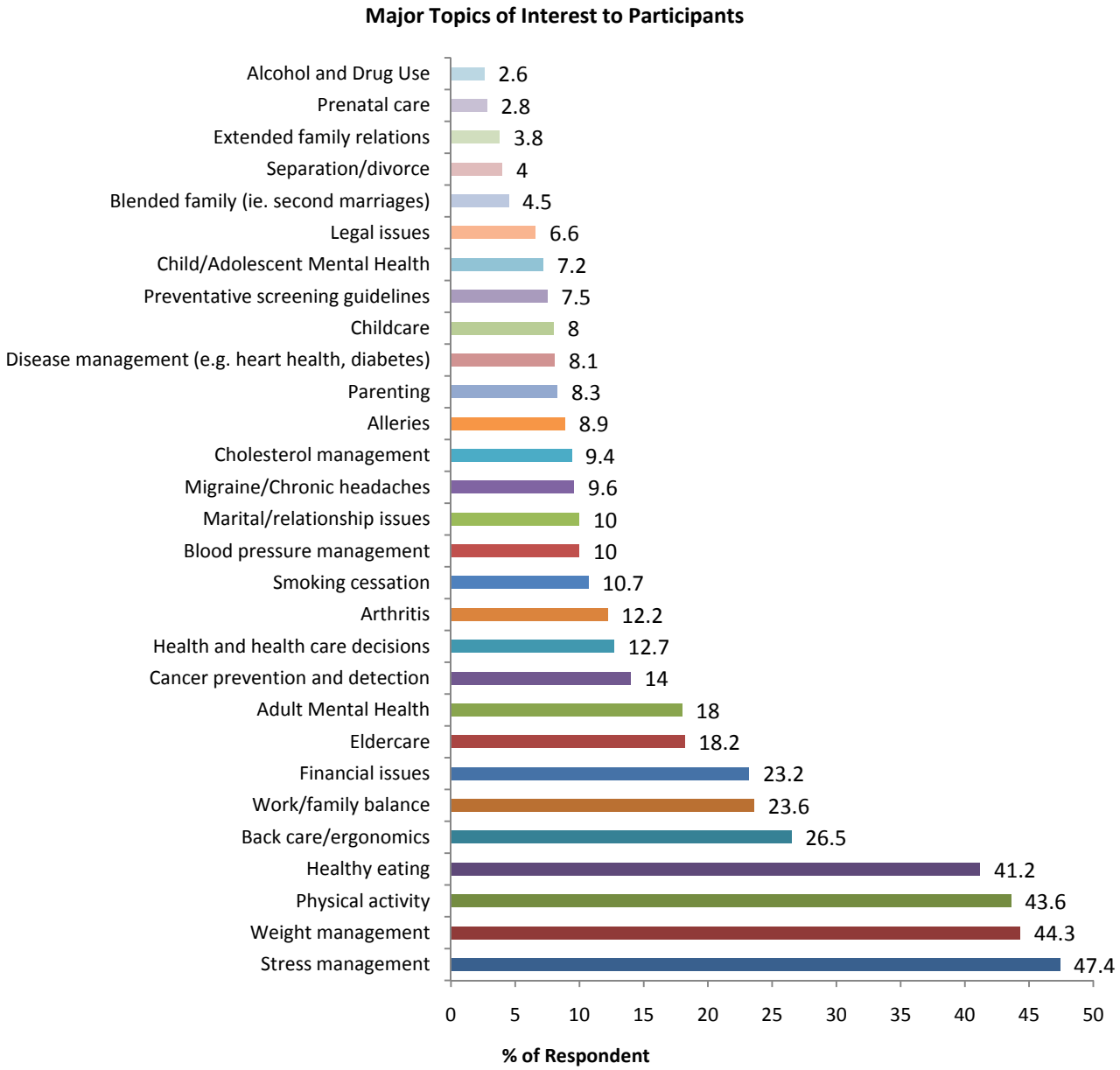
- Stress management
- Weight management
- Physical activity
- Healthy eating
- Backache/Ergonomics
- Work-family balance
- Financial issues

The categories of interest to NBANH employees (the top 7 overall) were mapped for each region. Following are the main observations:

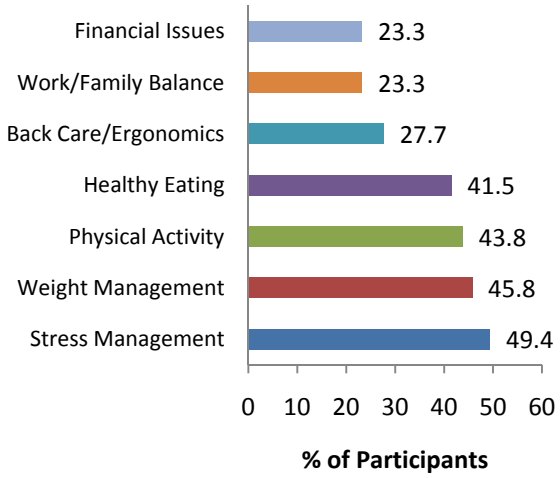
- **Region 4** participants expressed the highest interest of all regions in stress management (**50.5%**) and work-family balance (**35%**)
- **Region 5** respondents expressed the highest interest of all regions in physical activity (**49%**), healthy eating (**47%**) and back care/ergonomics (**38%**)
- Stress management, weight management, physical activity and healthy eating where of notable interest in **all** regions

The programs and services which all participants report they would most likely to participate in are:

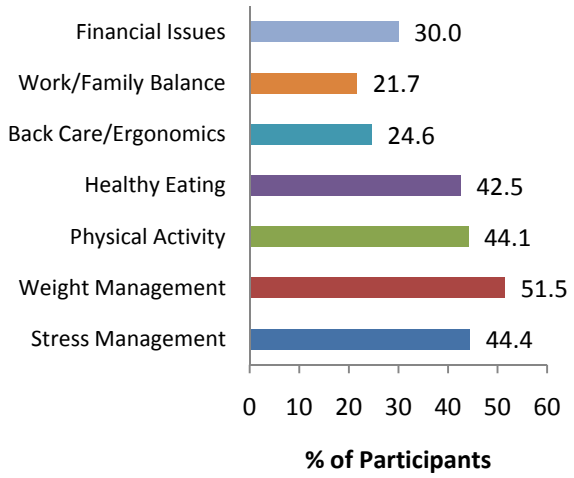
- Health related competitions, challenges
- Fitness classes
- Confidential health screening by a nurse
- Weight management program


Major Topics of Interest to Participants
Alcohol and Drug Use 2.6
Prenatal care 2.8
Extended family relations 3.8
Separation/divorce 4
Blended family (ie. second marriages) 4.5
Legal issues 6.6
Child/Adolescent Mental Health 7.2
Preventative screening guidelines 7.5
Childcare 8
Disease management (e.g. heart health, diabetes) 8.1
Parenting 8.3
Alleries 8.9
Cholesterol management 9.4
Migraine/Chronic headaches 9.6
Marital/relationship issues 10
Blood pressure management 10
Smoking cessation 10.7
Arthritis 12.2
Health and health care decisions 12.7
Cancer prevention and detection 14
Adult Mental Health 18
Eldercare 18.2
Financial issues 23.2
Work/family balance 23.6
Back care/ergonomics 26.5
Healthy eating 41.2
Physical activity 43.6
Weight management 44.3
Stress management 47.4
0 5 10 15 20 25 30 35 40 45 50
% of Respondent

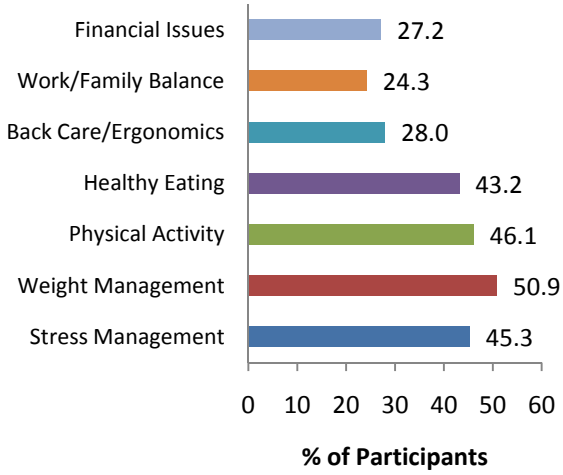
NBANH Top 7 Major Topics of Interest - Region 1



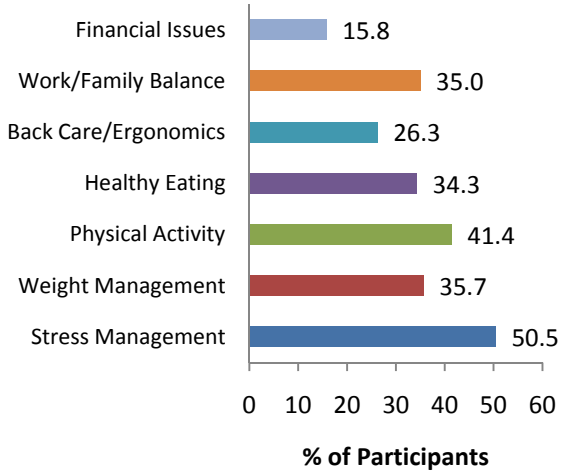
NBANH Top 7 Major Topics of Interest - Region 2

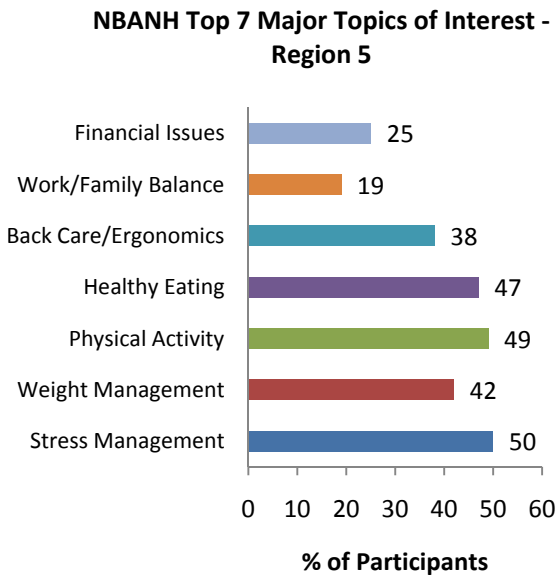


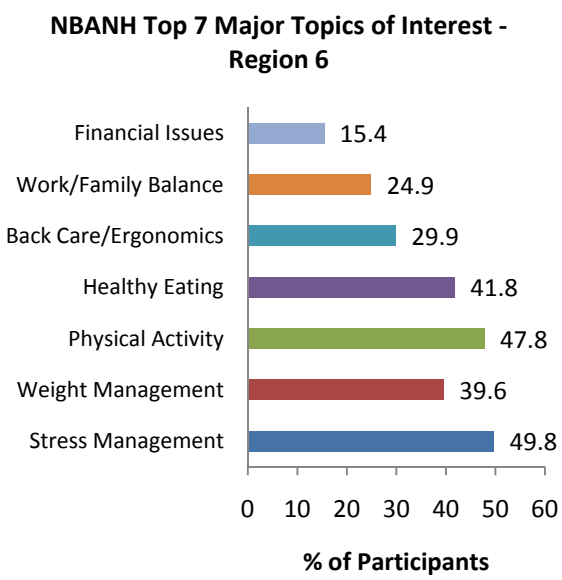
NBANH Top 7 Major Topics of Interest - Region 3

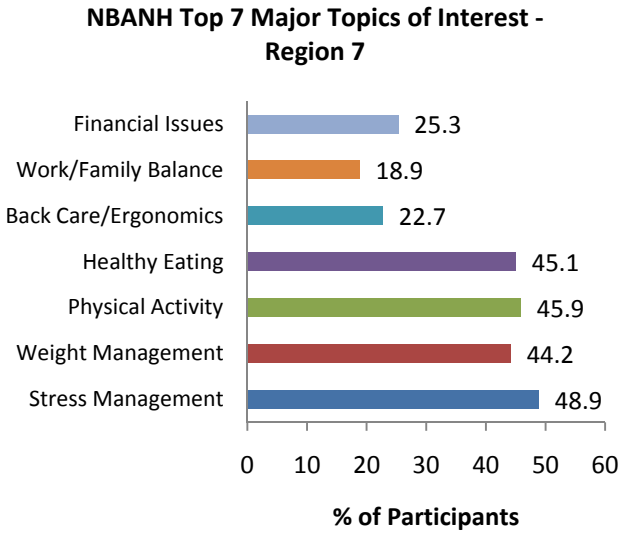


NBANH Top 7 Major Topics of Interest - Region 4





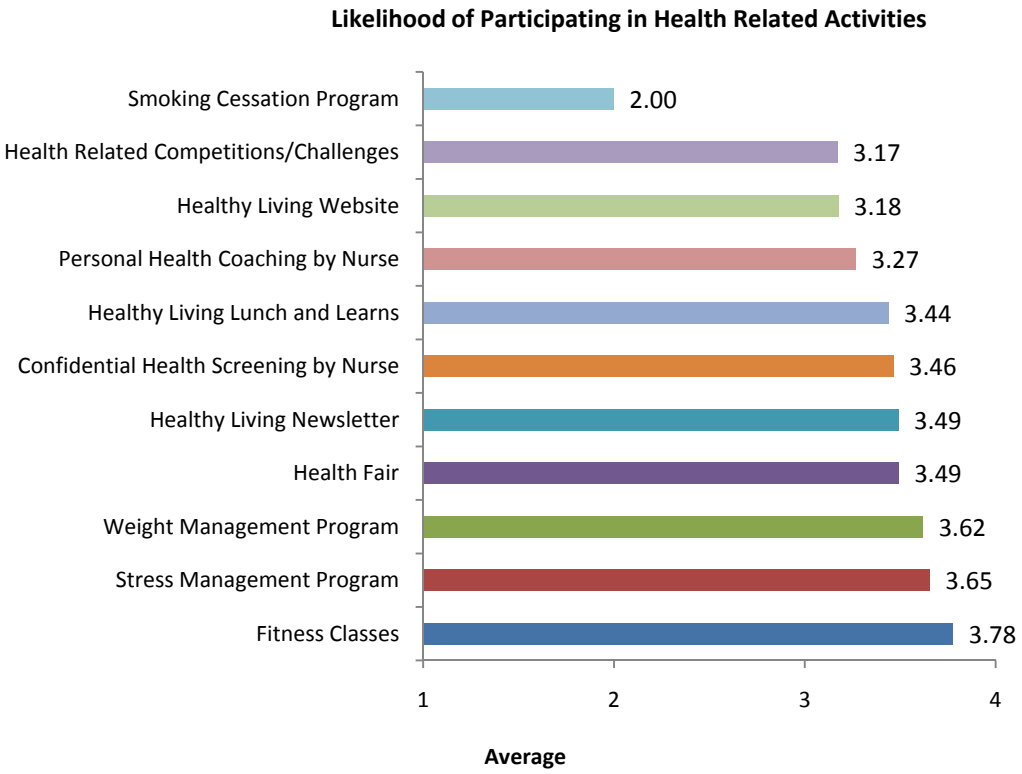


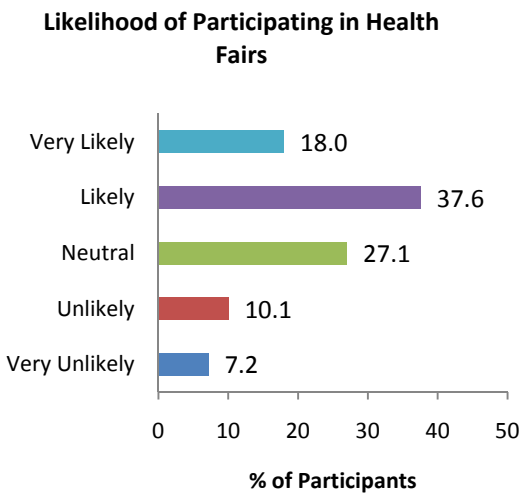


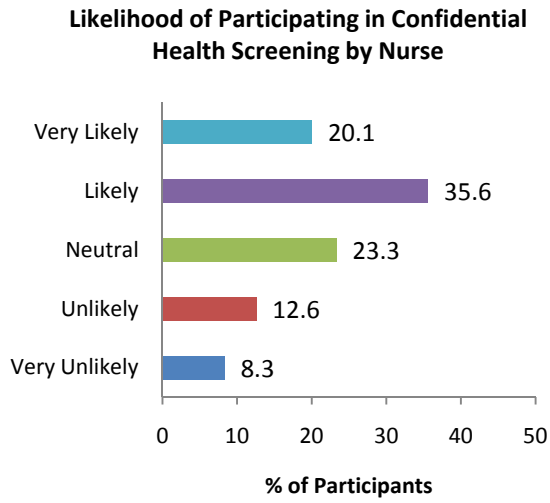
Health and Wellness Participation

Participants were also asked hot likely they were to participate in various wellness initiatives. The answers ranged from “very unlikely” = 1 to “very likely” = 5. Average scores are presented in the graph below, followed by the proportions of answers for each wellness initiative. Following are the results:

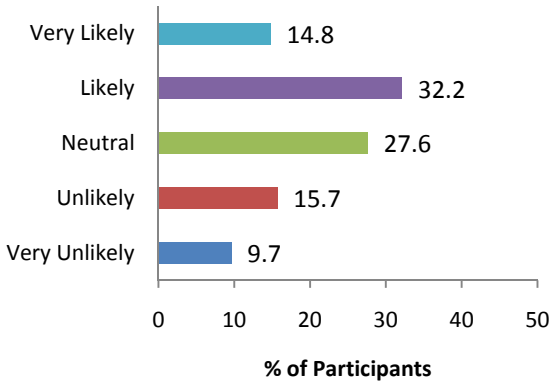
- Most participants were interested in health related competitions, challenges (**3.74**) and fitness classes (**3.73**)
- **66.4%** of participants were likely/very likely to participate in fitness classes and **62.2%** were likely/very likely to participate in health related competitions, challenges


Likelihood of Participating in Health Related Activities
Smoking Cessation Program
2.00
Health Related Competitions/Challenges
3.17
Healthy Living Website
3.18
Personal Health Coaching by Nurse
3.27
Healthy Living Lunch and Learns
3.44
Confidential Health Screening by Nurse
3.46
Healthy Living Newsletter
3.49
Health Fair
3.49
Weight Management Program
3.62
Stress Management Program
3.65
Fitness Classes
3.78
1
2
3
4
Average

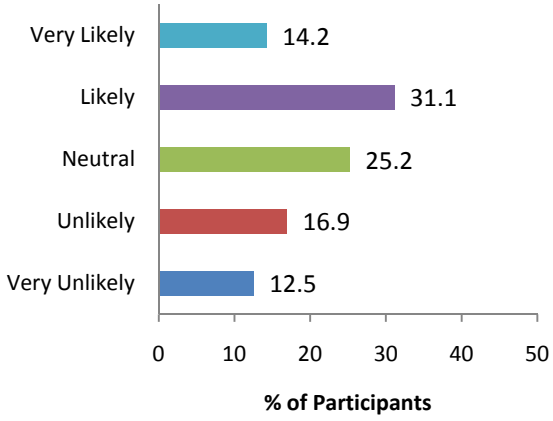

Likelihood of Participating in Health Fairs
Very Likely
18.0
Likely
37.6
Neutral
27.1
Unlikely
10.1
Very Unlikely
7.2
0
10
20
30
40
50
% of Participants


Likelihood of Participating in Confidential Health Screening by Nurse
Very Likely
20.1
Likely
35.6
Neutral
23.3
Unlikely
12.6
Very Unlikely
8.3
0
10
20
30
40
50
% of Participants

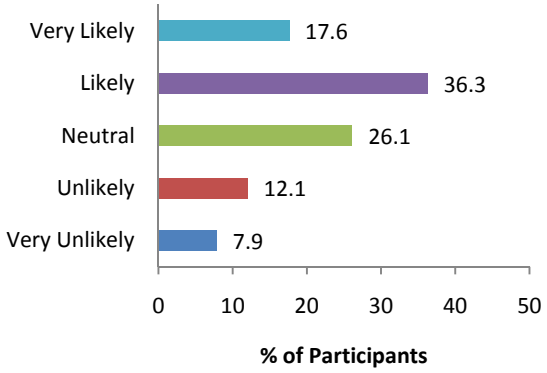
Likelihood of Participating in Personal Health Coaching by Nurse



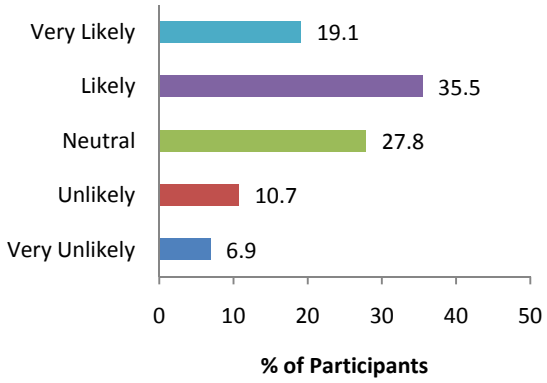
Likelihood of Participating in Healthy Living Website



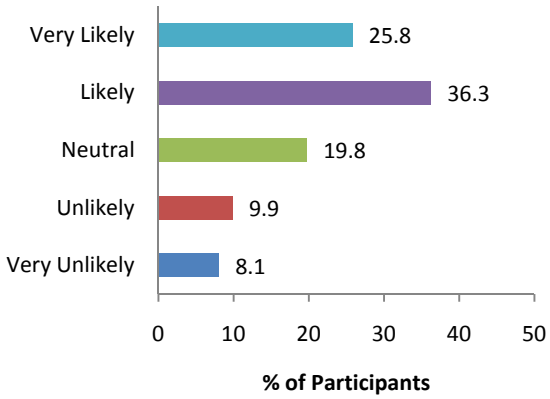
Likelihood of Participating in Healthy Living Lunch and Learns



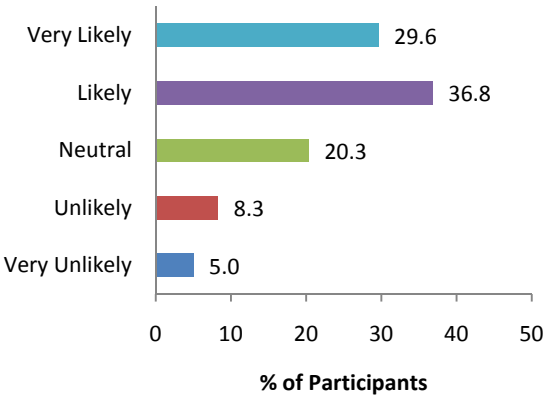
Likelihood of Participating in Healthy Living Newsletter

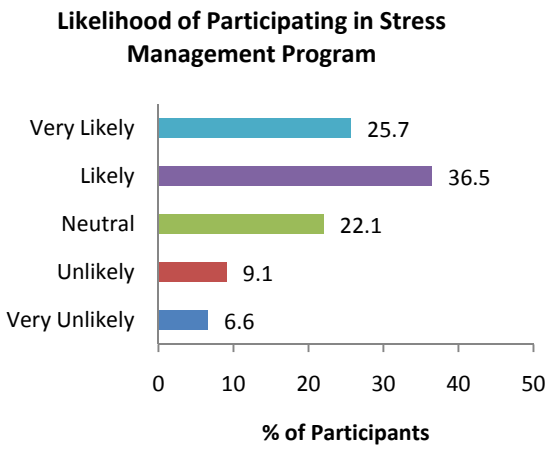


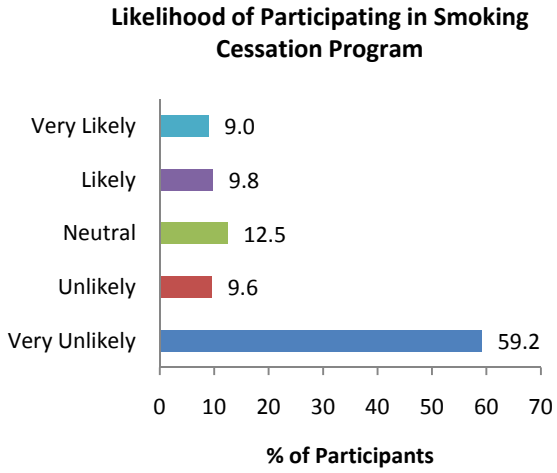
Likelihood of Participating in Weight Management Program

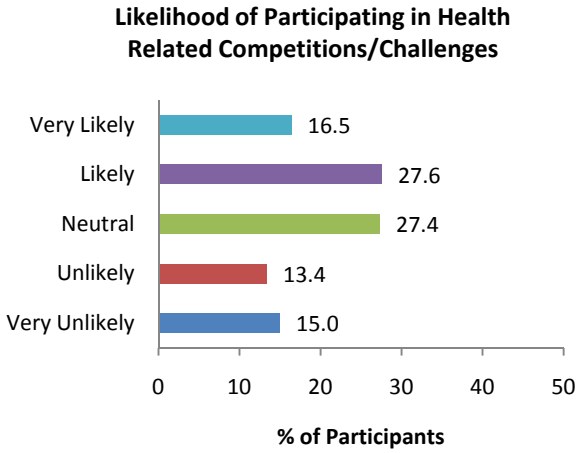


Likelihood of Participating in Fitness Classes





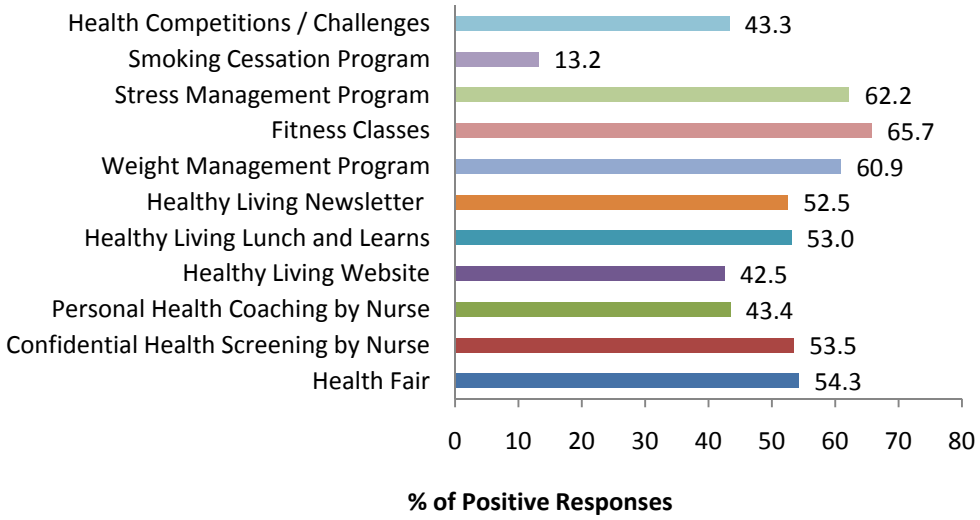




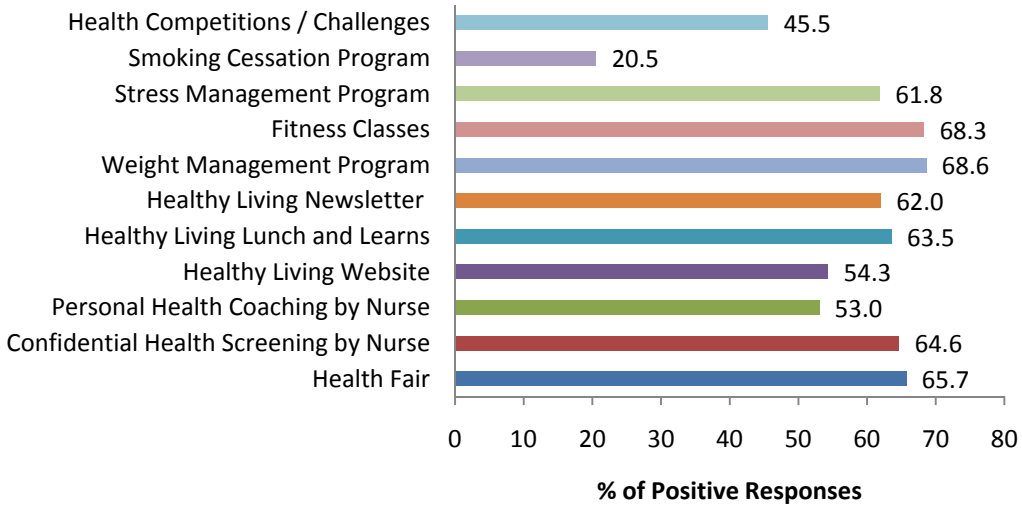
Following are the health activities participants are likely to engage in by Region:

- **Region 1** respondents (**65.7%**) are most likely to participate in fitness classes
- **Region 2** respondents (**68.6%**) are most likely to participate in weight management programs
- **Region 3** respondents (**73.4%**) are most likely to participate in fitness classes
- **Region 4** respondents (**61.1%**) are most likely to participate in stress management programs
- **Region 5** respondents (**76.3%**) are most likely to participate in stress management programs
- **Region 6** respondents (**61%**) are most likely to participate in fitness classes
- **Region 7** respondents (**72.9%**) are most likely to participate in fitness classes

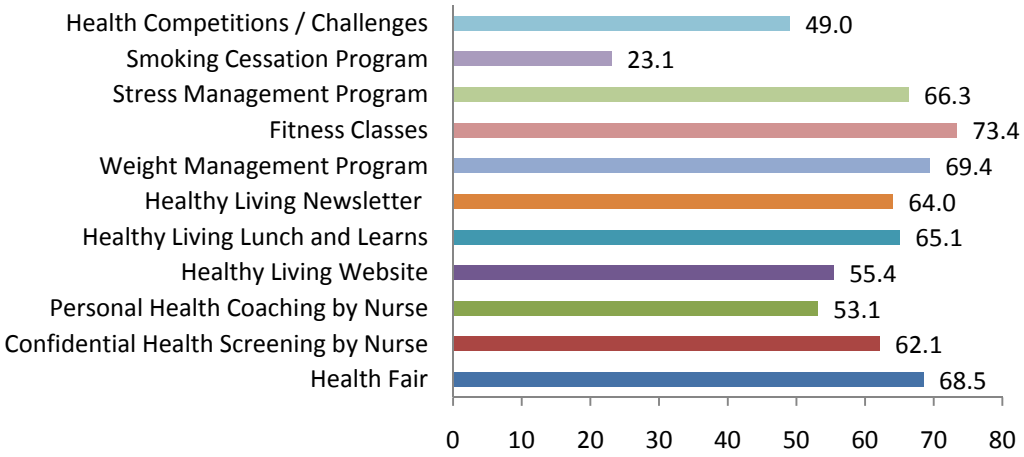
Likelihood of Participation in Health Activities - Region 1



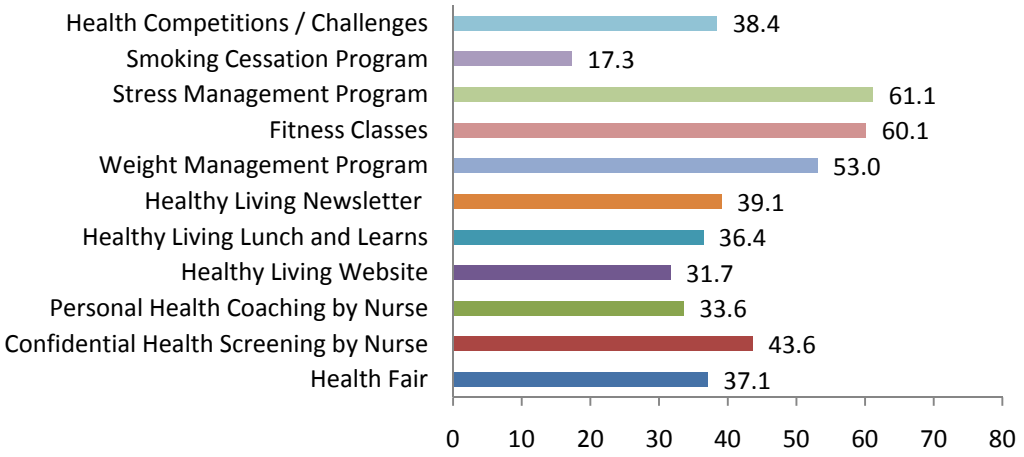
Likelihood of Participation in Health Activities - Region 2



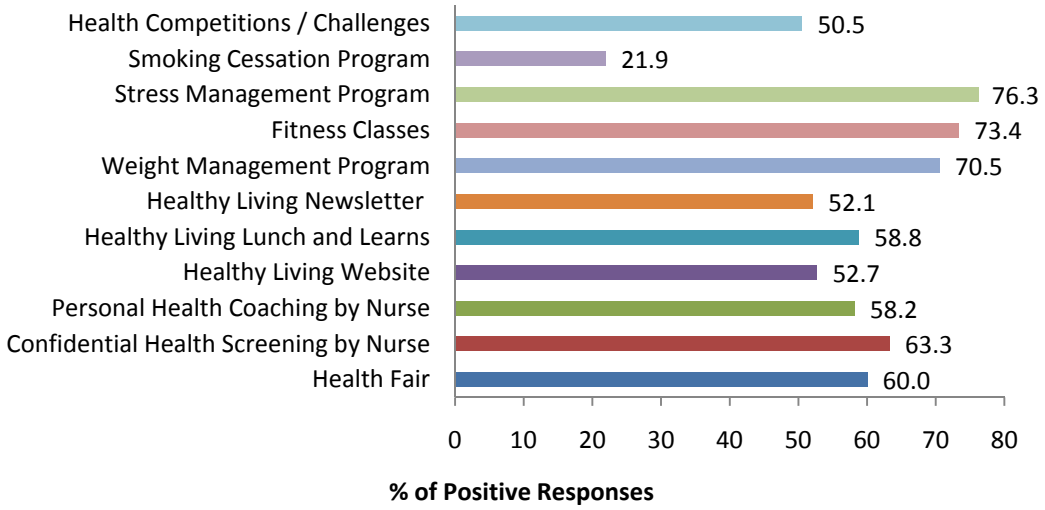
Likelihood of Participation in Health Activities - Region 3



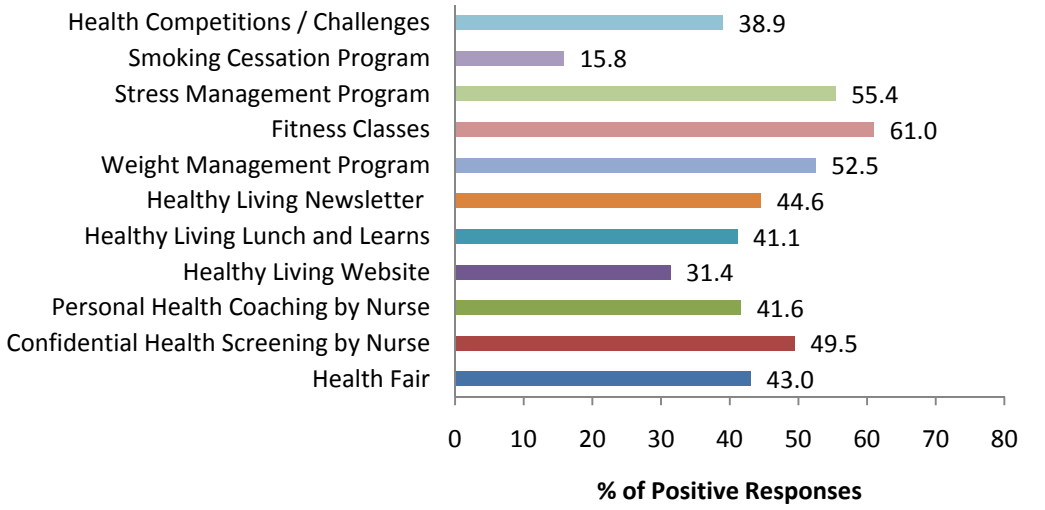
Likelihood of Participation in Health Activities - Region 4

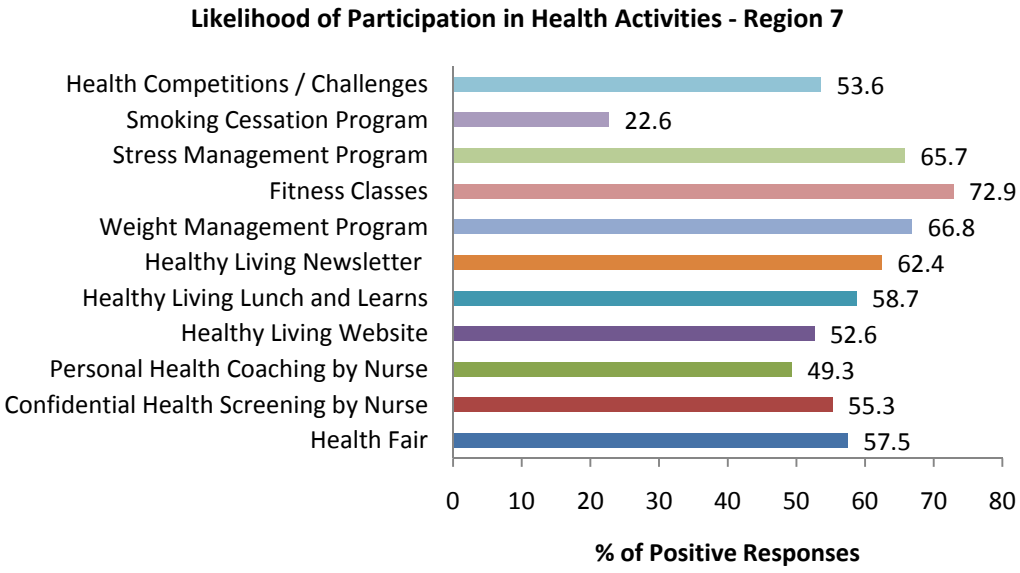


Likelihood of Participation in Health Activities - Region 5



Likelihood of Participation in Health Activities - Region 6




Likelihood of Participation in Health Activities - Region 7
Health Competitions / Challenges
Smoking Cessation Program
Stress Management Program
Fitness Classes
Weight Management Program
Healthy Living Newsletter
Healthy Living Lunch and Learns
Healthy Living Website
Personal Health Coaching by Nurse
Confidential Health Screening by Nurse
Health Fair
53.6
22.6
65.7
72.9
66.8
62.4
58.7
52.6
49.3
55.3
57.5
0
10
20
30
40
50
60
70
80
% of Positive Responses

Financial Impact of Health Status

Many studies have reported that worksite health promotion programs can be effective in improving employee health risks. Further, when improvements in health risks are made, research has also shown a corresponding decrease in health related costs and increased employee productivity.

One of the foundational tenets of the field of corporate wellness is that it is clearly better to prevent health problems than to treat them later on. When done effectively, health promotion has demonstrated a successful history of both improving health and providing a significant return. For well over a decade, research has been showing the effectiveness of Workplace Wellness Programs. For every dollar spent on Workplace Wellness Programs, the returns have been cost savings of between $2.30 and $10.10 in the areas of decreased rates of absence, fewer sick days, decreased WSIB/WCB claims, lowered health and insurance costs, and improvements to employee performance and productivity.

Statistics also show that Workplace Wellness Programs increase employee morale, improve the ability to attract and retain key workers, all while having more alert and productive staff members.

There are three main components of cost, made available through this survey, which can be considered to determine ROI of the NBANH Wellness Program:

1. Self reported Health Risk Assessment
2. Self reported Sickness Absence
3. Self reported Productivity/Presenteeism

1. Health Risk Assessment

The risk classification system used to calculate the risk profile for the respondent group is outlined in the Overall Health and Wellbeing section of this report.

2. Self Reported Sickness Absence

Respondents were asked to self report on the number of full and partial days absent from work in the past 4 weeks for their own illness or temporary disability. These data are annualized to reflect a 12 month absenteeism rate, and compared across health risk categories.

	Average Days Lost/Per Year
Low Risk	20.16
Medium Risk	21.86
High Risk	25.56
Average	21.46

3. Self Reported Productivity

To assess the health related impacts on work performance (productivity), the NBANH Employee Health & Wellness Survey included 2 questions about physical and mental health impacts on work. Respondents are asked to base their responses on the previous 4 weeks of work and to rate their level of agreement on a 5 point agreement likert scale. To calculate productivity loss, and to quantify in dollars, the following conversion was used:

Indicator (over the past 4 weeks...)	Rating	Scoring	Conversion	% Associated Productivity Loss
To what extent have you accomplished less than you would like in your work as a result of emotional problems	Extremely Quite a bit Moderately Slightly Not at all	4 3 2 1 0	Always Frequently Half of the time Occasionally Never	100 75 50 25 0
To what extent have you accomplished less than you would like in your work as a result of your physical health	Extremely Quite a bit Moderately Slightly Not at all	4 3 2 1 0	Always Frequently Half of the time Occasionally Never	0 25 50 75 100

To calculate productivity loss for risk levels:

1. Average scores, range 0-4, each score of 1 representing a 25% loss of self-reported productivity
2. % of productivity loss is estimated by multiplying the score by 25% (0.25) x 100
3. Excess productivity loss for each risk level is calculated

Physical Health			
	Productivity Impact Scores	**Estimated Productivity Loss (%)** **(Avg x 0.25) x 100**	**Estimated Excess Loss** **(%)**
Low (0-2)	0.56	14.0	0.0
Med (3-4)	0.79	19.8	5.8
High (5+)	1.15	28.8	14.8

Mental Health	Productivity Impact Scores	Estimated Productivity Loss (%) (Avg x 0.25) x 100	Estimated Excess Loss (%)
Low (0-2)	0.48	12.0	0.0
Med (3-4)	0.69	17.3	5.3
High (5+)	1.13	28.3	16.3

To quantify productivity loss costs:

1. Calculate average productivity loss by adding 2 productivity questions, scores range from 0-4, each score of 1 = 25% loss of productivity
2. % of productivity loss is avg. score x 25% (x100)

Calculating the Financial Impact of Health at NBANH

Using this methodology, the data on the baseline NBANH Employee Health & Wellness Survey can be used to calculate the cost of health risks in the organization, using the two productivity indicators and the absence days. Note: a day rate of $175.40, and an annual salary of $45,594.70 were used as proxy measures.

Low Risk (0-2 risk factors)	Abs = 20.16 days	20.16 x $175.40 = $3,536
	Productivity Loss due to Physical Health = 14%	45,594.70 x 0.14 = $6,383.30
	Productivity Loss due to Mental Health = 12%	45,594.70 x 12% = $5,471.40
Medium Risk (3-4 risk factors)	Abs = 21.86 days	21.86 x $175.4 = $3,834.20
	Productivity Loss due to Physical Health = 19.8%	45,594.7 x 0.198 = $9,027.80
	Productivity Loss due to Mental Health = 17.3%	45,594.7 x 17.3% = $7,887.90
High Risk (5+ risk factors)	Abs = 25.56 days	25.56 x $175.4 = $4,483.20
	Productivity Loss due to Physical Health = 28.8%	45,594.7 x 0.288 = $13,131.30
	Productivity Loss due to Mental Health =28.3%	45,594.7 x 28.3%= $12,903.30
Calculations: Cost of Low Risk employees = **$15,390** Cost of Medium Risk employees = **$20,749** Cost of High Risk employees = **$30,517**		

Financial Savings Projections

The aforementioned risk, absence and productivity data is based on the respondent profile. By way of extrapolating this data to NBANH's full population of 4600 employees, the following measures are established:

- 644 high risk employees are costing NBANH **$19,652,948**
- 1481.2 medium risk employees are costing NBANH **$30,733,418**
- 2474.8 low risk employees are costing NBANH **$38,087,172**

Therefore, it is estimated that the cost of health risk for the full population, not including health benefit expenditures, in terms of absence and productivity is **$88,473,538** per year.

Conservatively, if NBANH could invest in health promotion that resulted in:

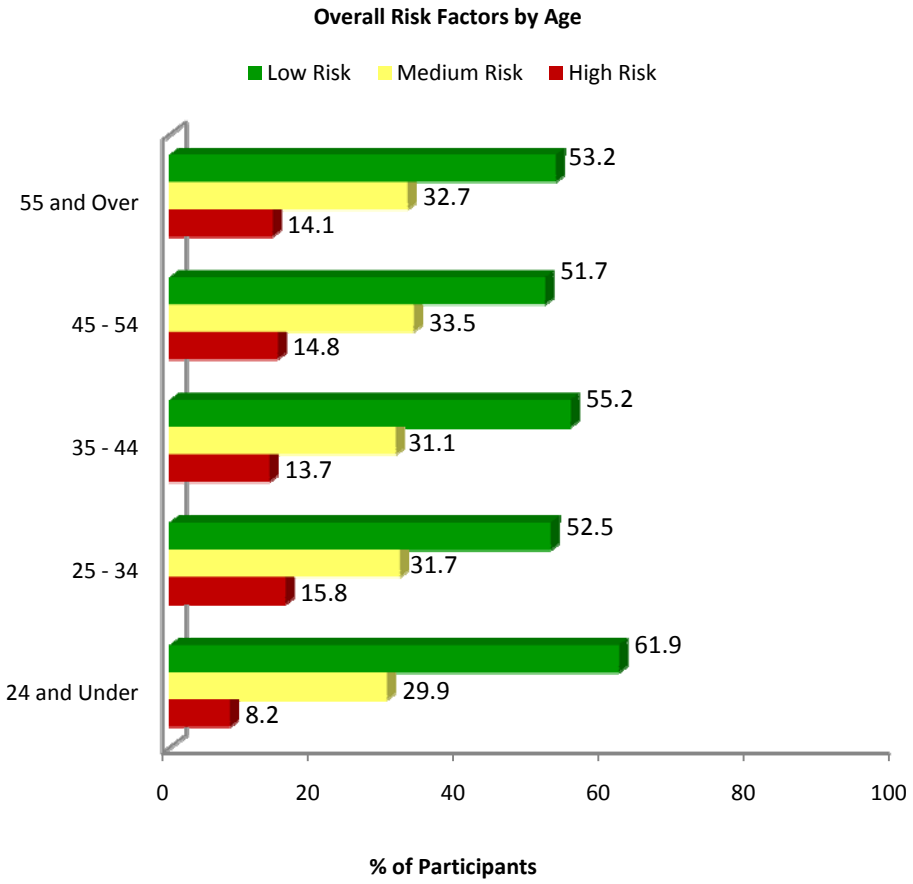
- 10% of high risk employees moving into medium risk (65 people), the result would be a savings of **$634,920** (65 x $9,768), and
- 10% of medium risk into low risk (148 people), the result would be a savings **$793,132** (148 x $5,359).

This shift would result in a total estimated savings of: **$1,428,052 per year**

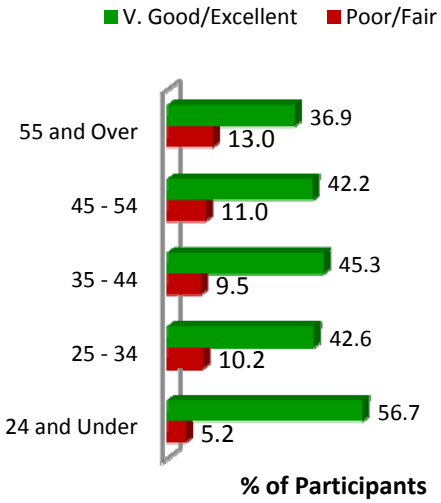
Appendices

Appendix A: Risk Factors by Age

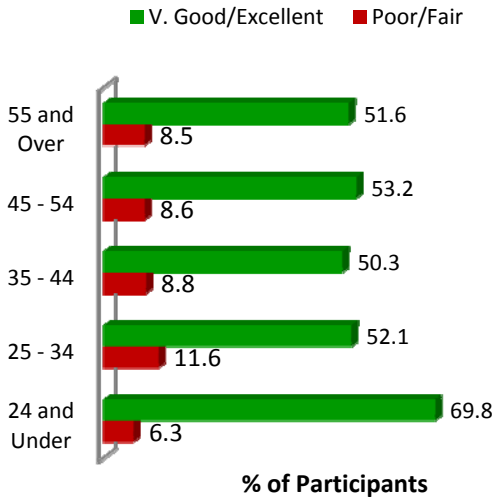
Overall Health and Wellbeing by Age



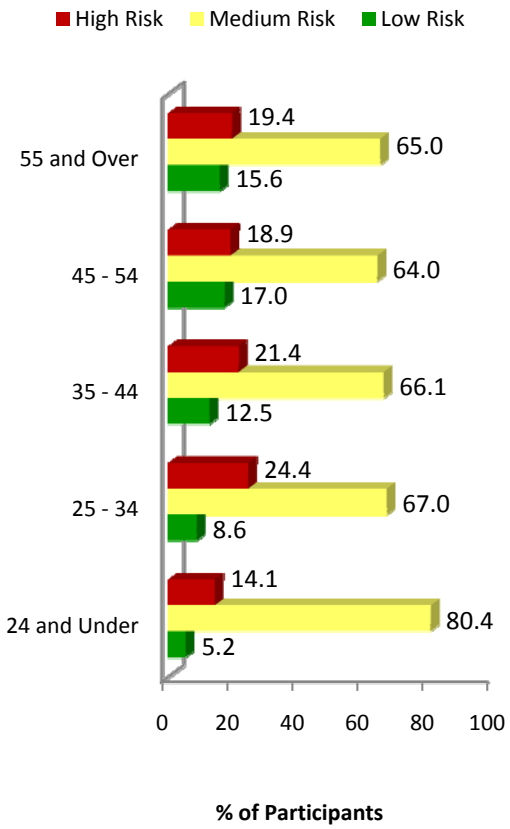
General Health Rating by Age



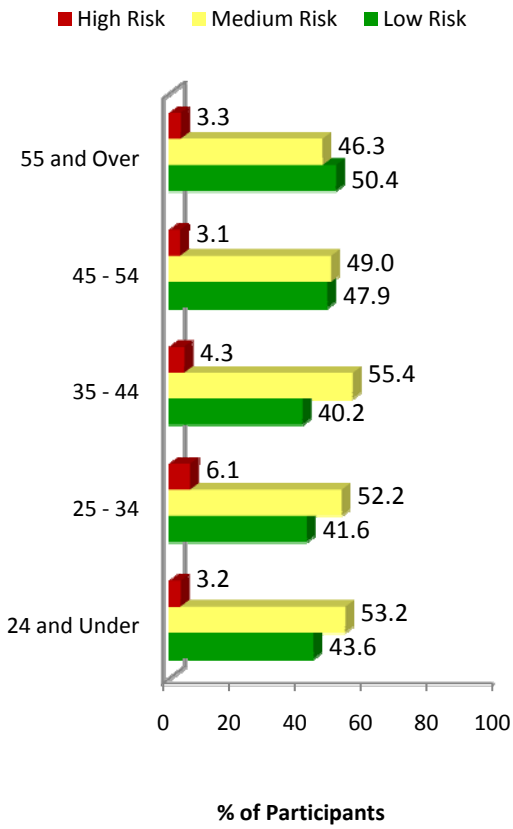
Mental Health Rating by Age



Vitality Scale Risk Factors by Age

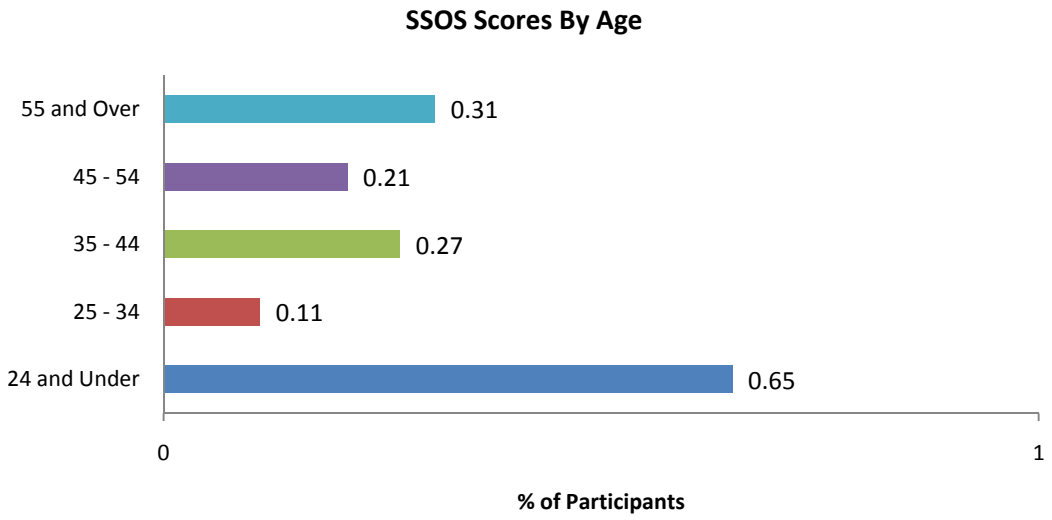


Mental Health Scale Risk Factors by Age



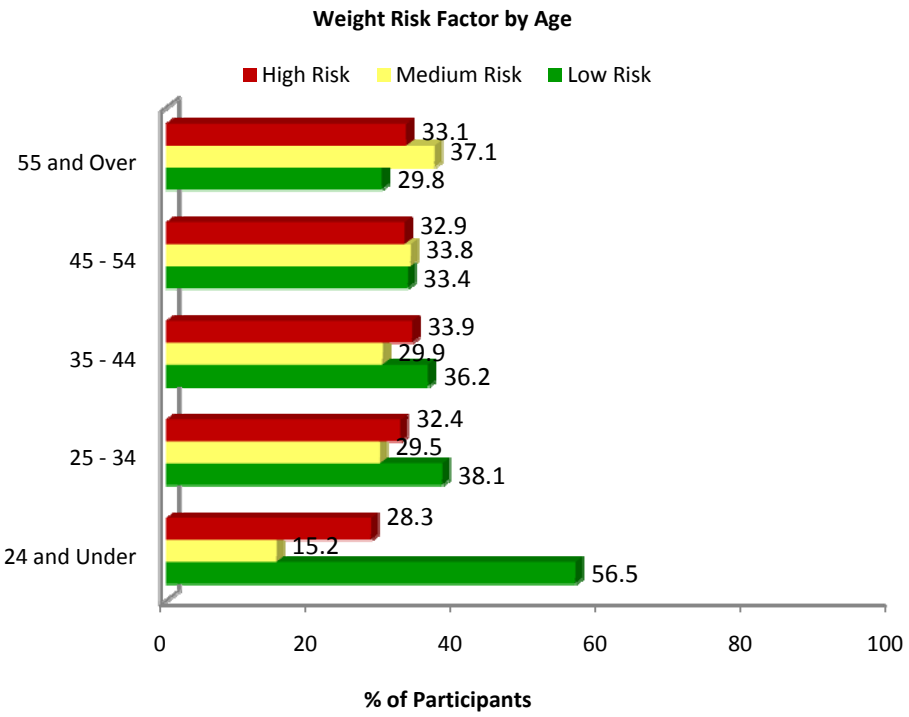
Health at Work by Age

	24 and Under	25 - 34	35 - 44	45 - 54	55 and Over	NBANH - All
Satisfaction with Supervisor	3.64	3.35	3.45	3.47	3.43	3.44
Organizational Satisfaction	3.76	3.38	3.40	3.44	3.48	3.43
Organizational Health and Safety Commitment	3.91	3.57	3.66	3.69	3.73	3.68
Work - Life Balance	3.46	3.28	3.45	3.50	3.52	3.46
Job Quality	3.46	3.16	3.23	3.12	3.12	3.16
Meaningful Work	4.51	4.48	4.49	4.49	4.44	4.48

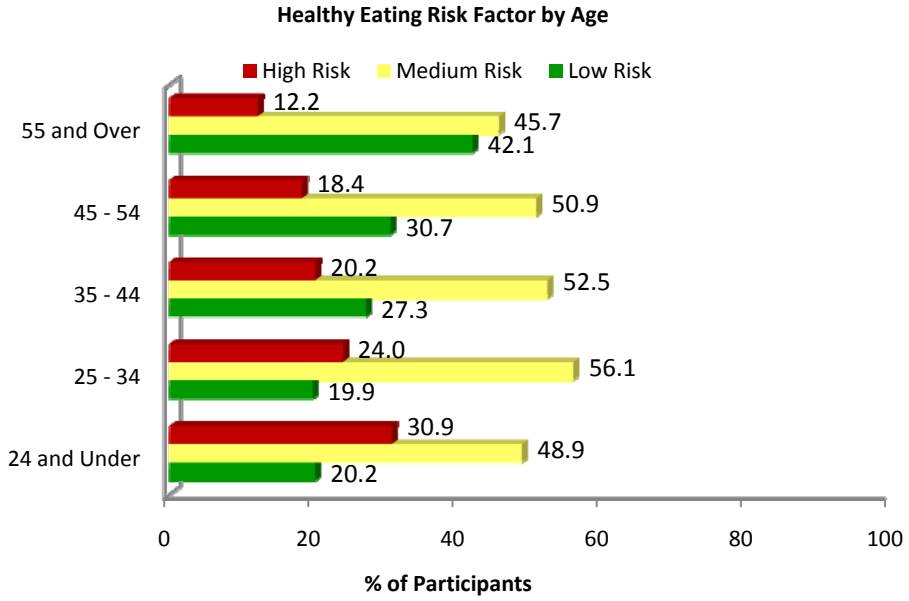


Lifestyle Risk Factors by Age

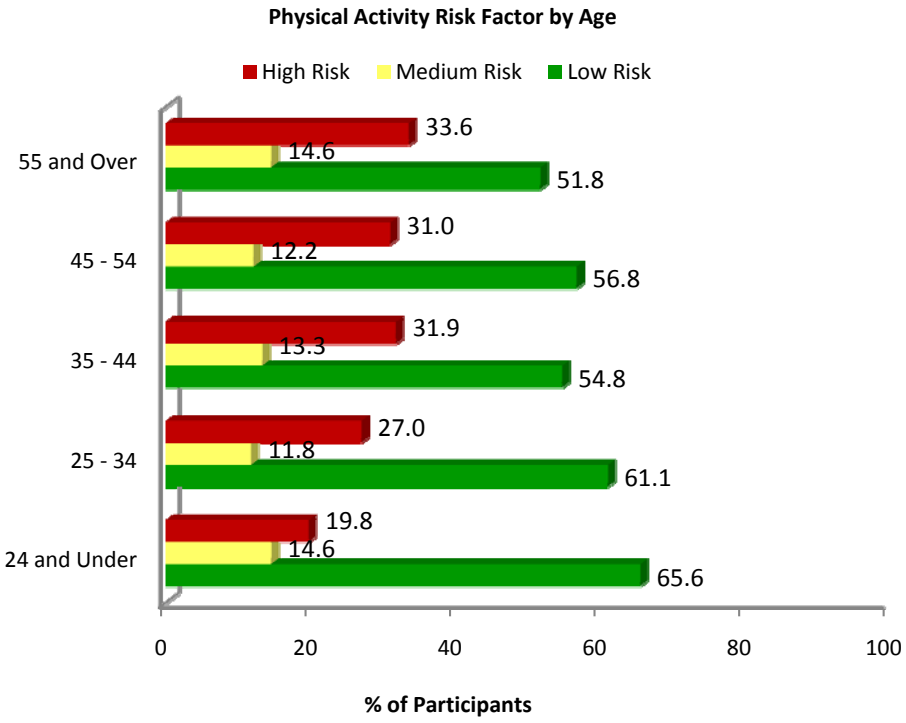
Weight Management



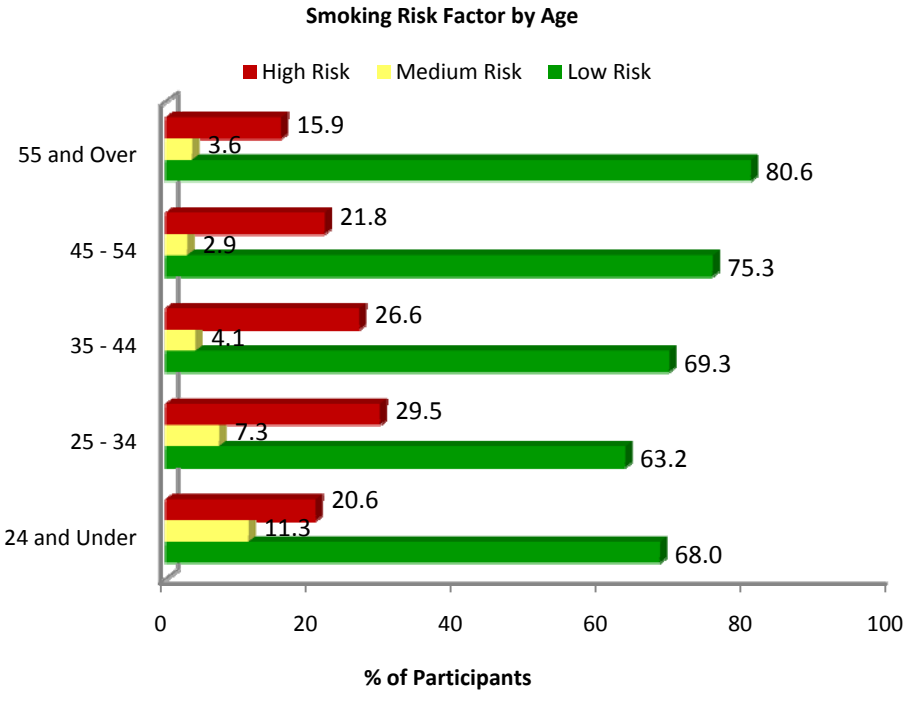
Healthy Eating



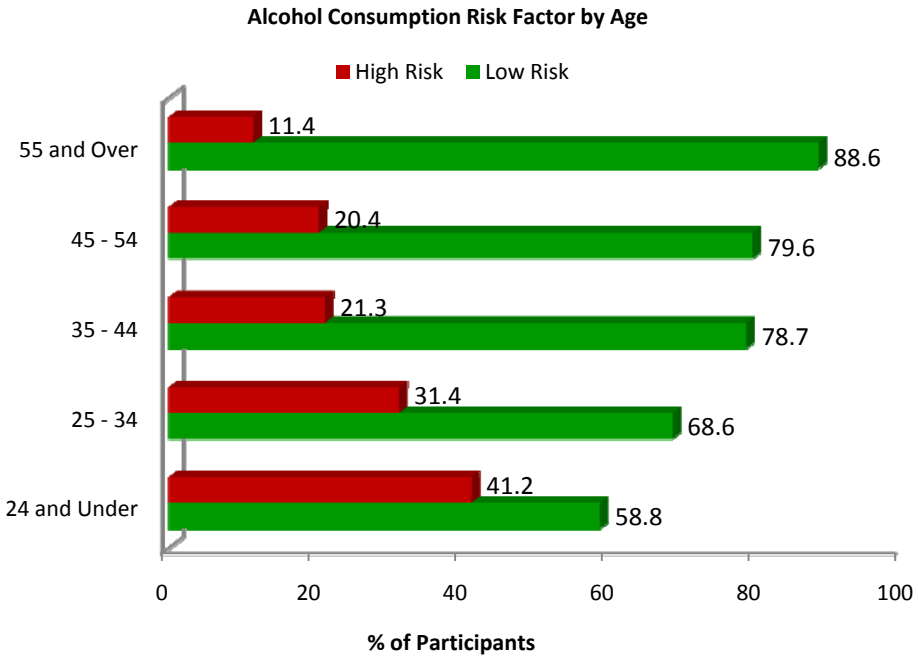
Physical Activity



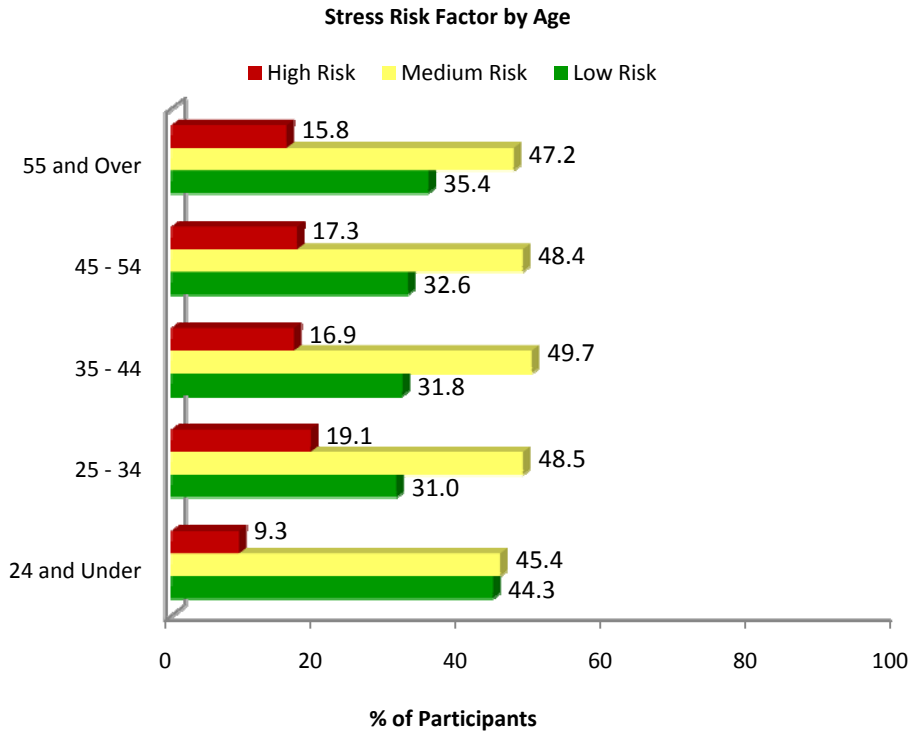
Smoking



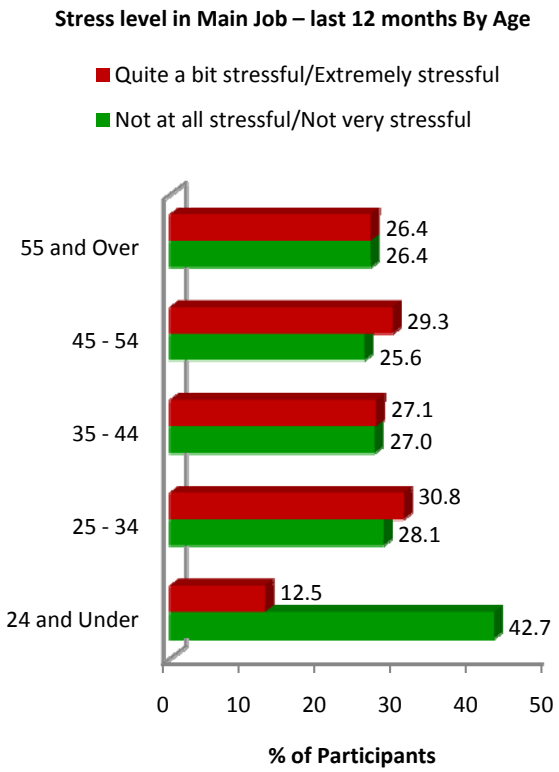
Alcohol Consumption



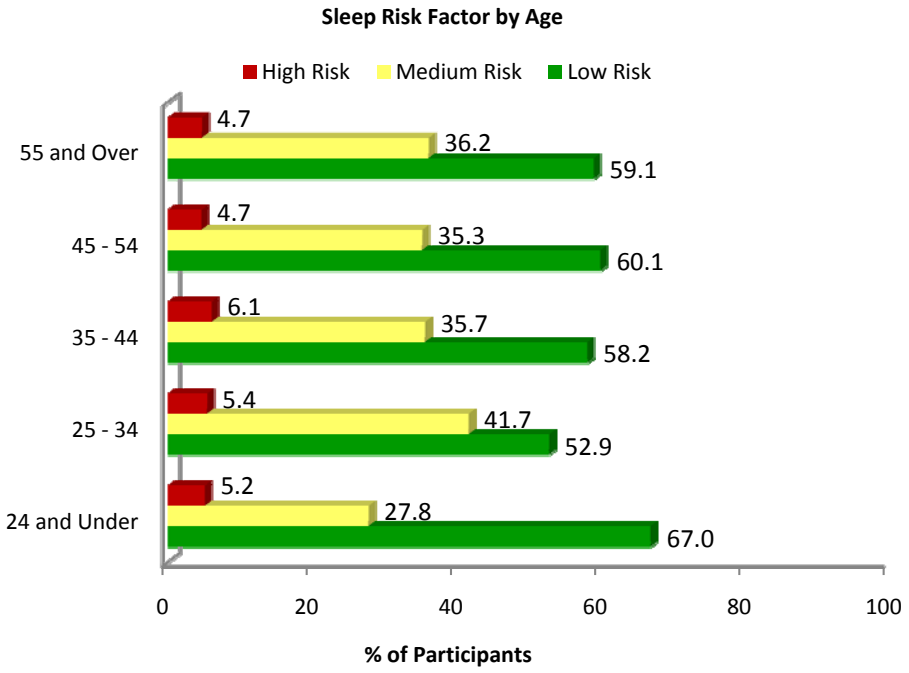
Stress




Stress level in Life – last 12 months By Age
Quite a bit stressful/Extremely stressful
Not at all stressful/Not very stressful
55 and Over
45 - 54
35 - 44
25 - 34
24 and Under
22.7
30.3
25.9
29.4
28.1
26.5
30.8
23.4
32.3
25
0
10
20
30
40
% of Participants

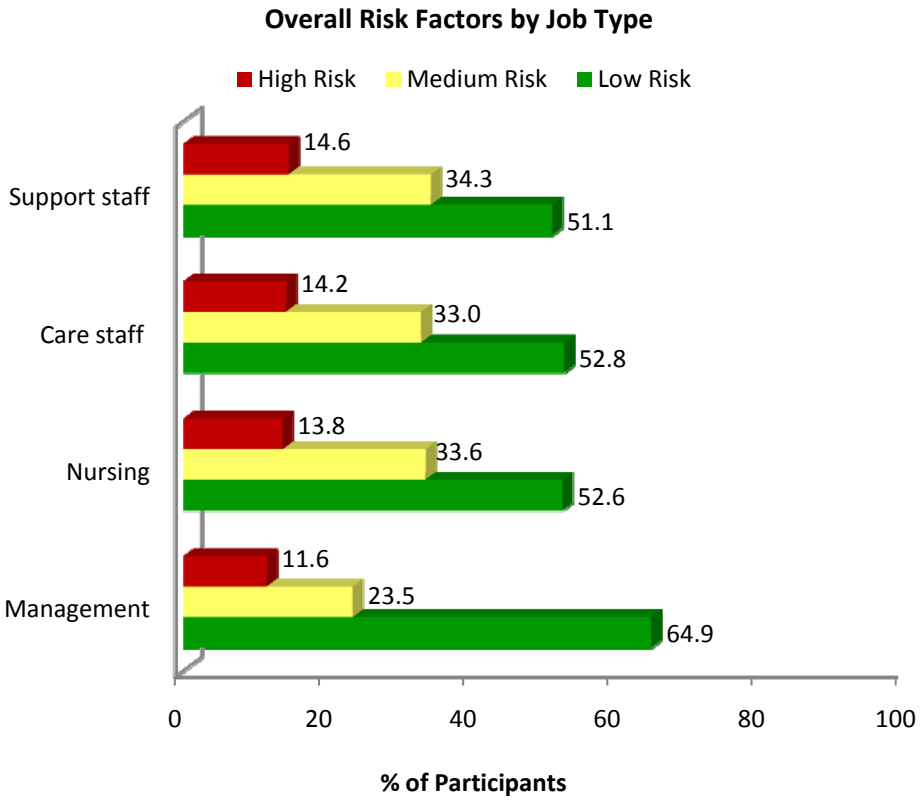

Stress level in Main Job – last 12 months By Age
Quite a bit stressful/Extremely stressful
Not at all stressful/Not very stressful
55 and Over
45 - 54
35 - 44
25 - 34
24 and Under
26.4
26.4
29.3
25.6
27.1
27.0
30.8
28.1
12.5
42.7
0
10
20
30
40
50
% of Participants

Sleep

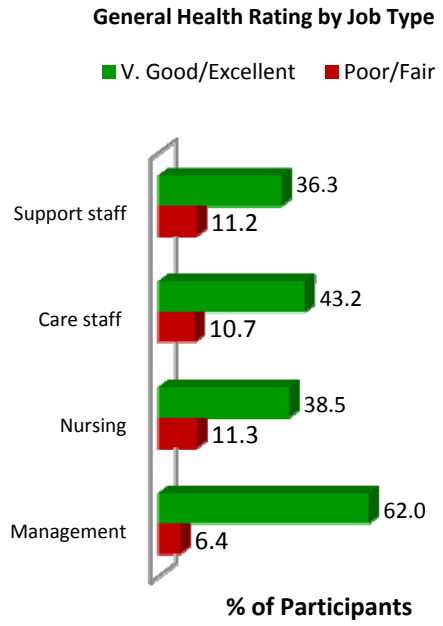

Sleep Risk Factor by Age
High Risk
Medium Risk
Low Risk
55 and Over
45 - 54
35 - 44
25 - 34
24 and Under
4.7
36.2
59.1
4.7
35.3
60.1
6.1
35.7
58.2
5.4
41.7
52.9
5.2
27.8
67.0
0
20
40
60
80
100
% of Participants

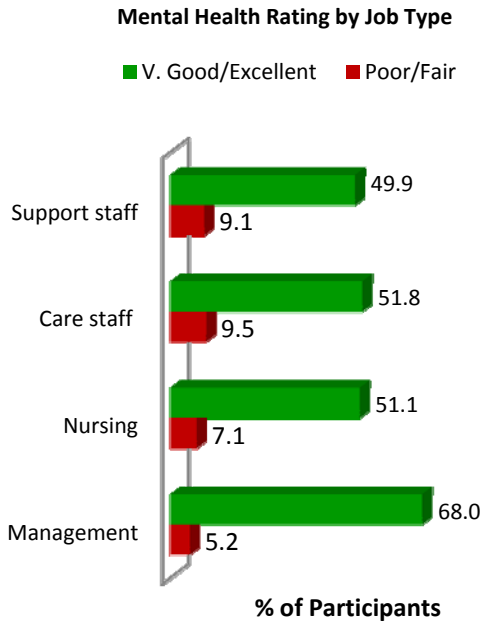
Appendix B: Risk Factors by Job Type

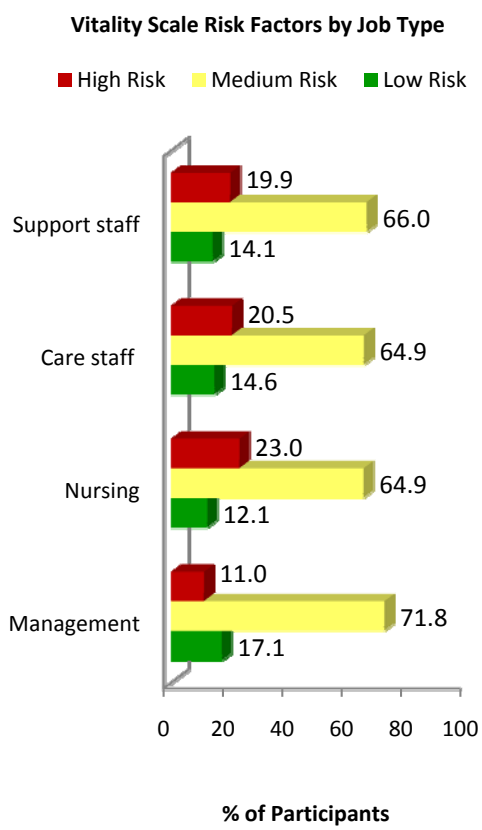
Overall Health and Wellbeing by Job Type

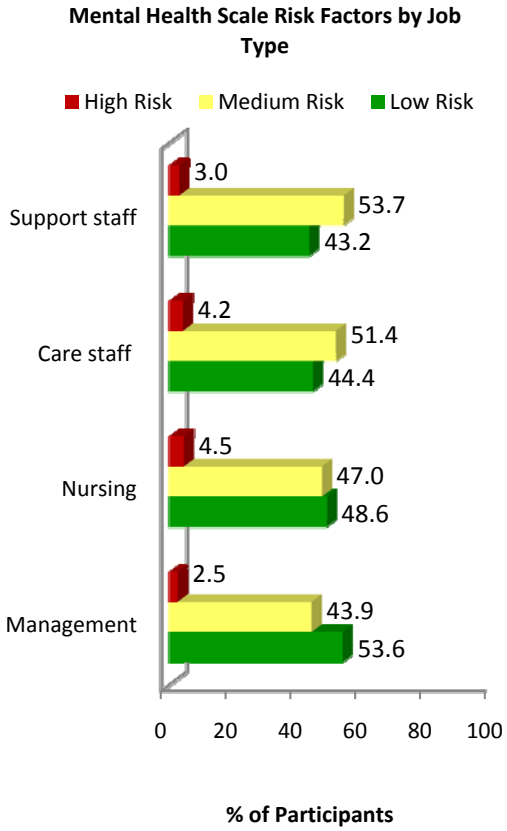


Self Reported Health Status



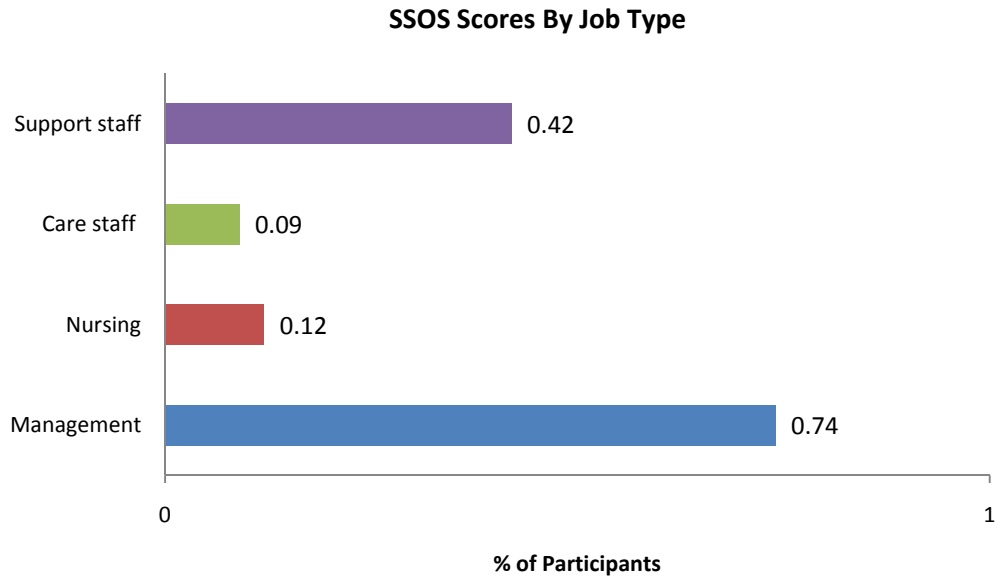






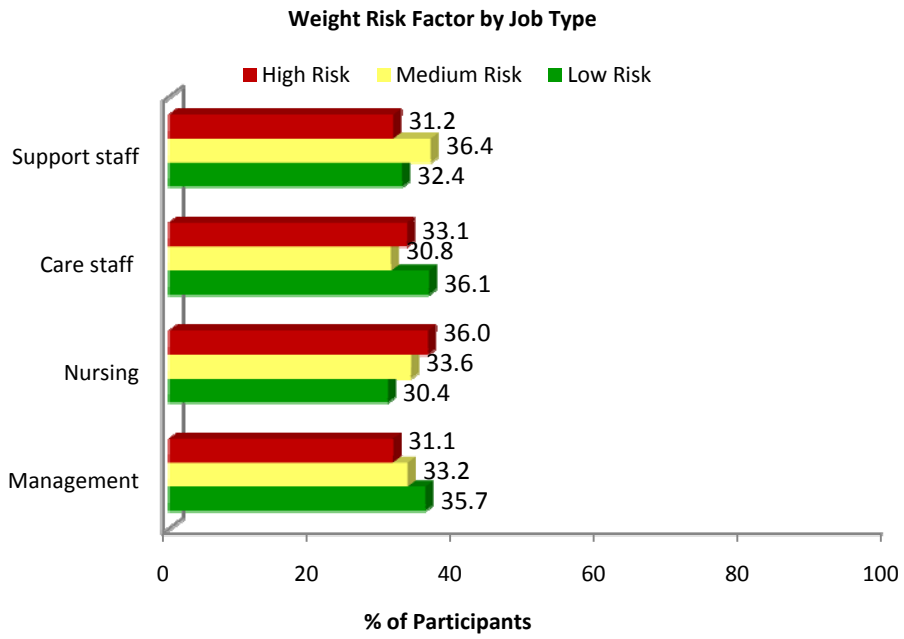
Health at Work by Job Type

	Management	Nursing	Care Staff	Support Staff	NBANH - All
Satisfaction with Supervisor	3.99	3.27	3.36	3.50	3.44
Organizational Satisfaction	4.03	3.30	3.34	3.49	3.43
Organizational Health and Safety Commitment	4.22	3.57	3.55	3.80	3.68
Work - Life Balance	3.94	3.35	3.32	3.63	3.46
Job Quality	3.17	3.11	3.16	3.20	3.16
Meaningful Work	4.54	4.50	4.56	4.29	4.48

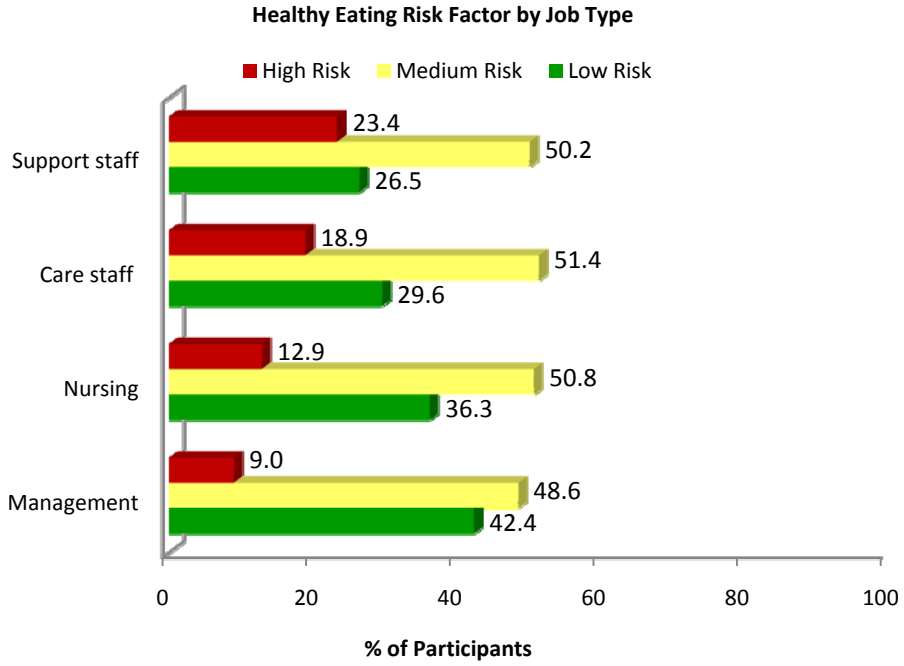


Lifestyle Risk Factors by Job Type

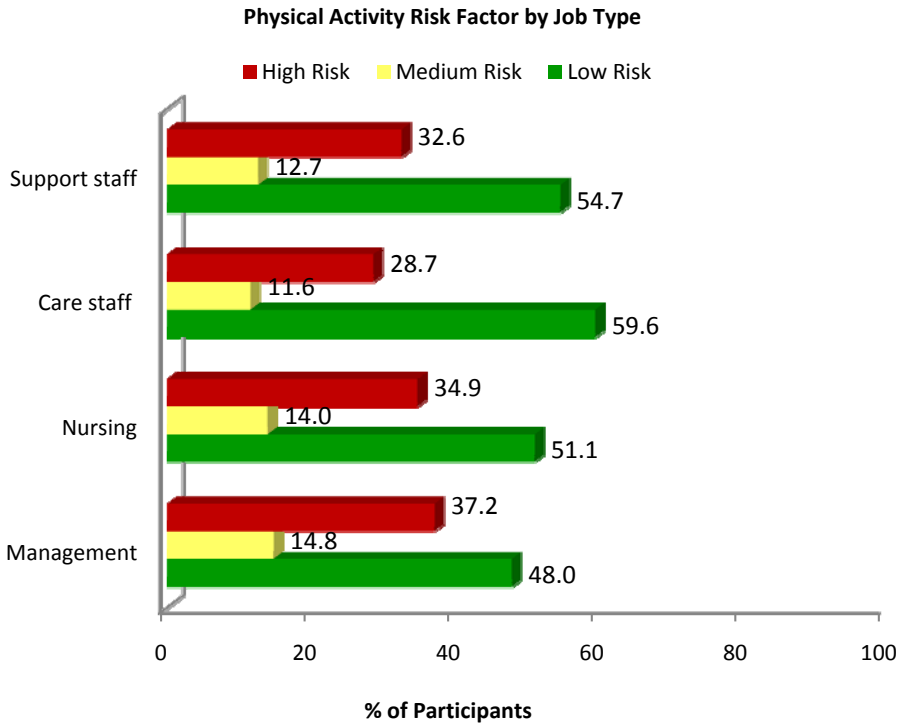
Weight Management



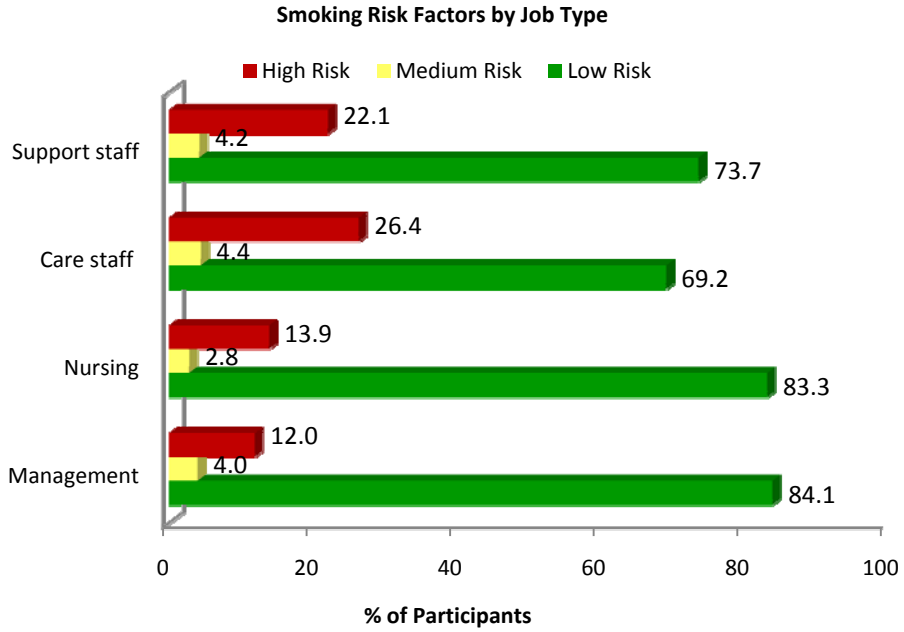
Healthy Eating



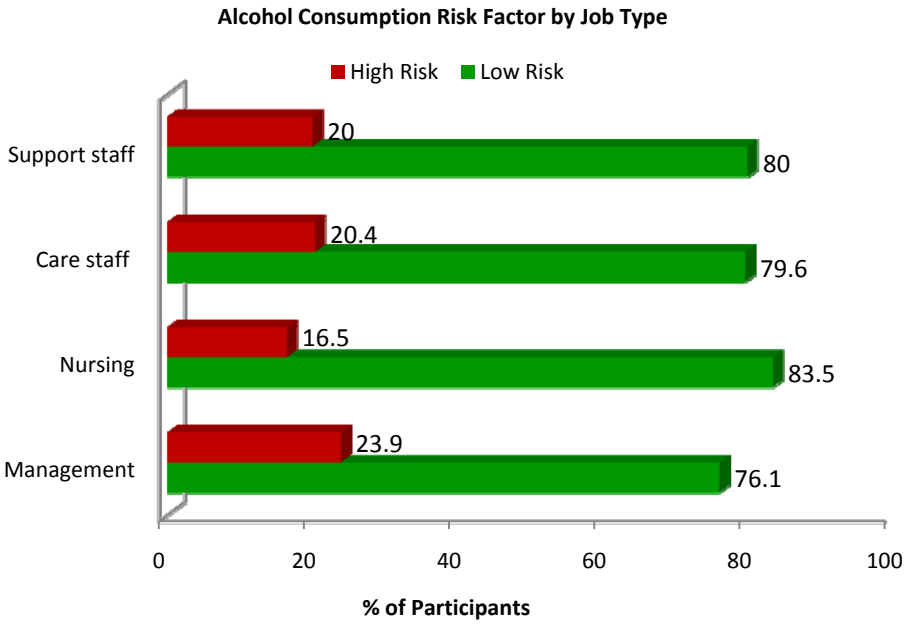
Physical Activity



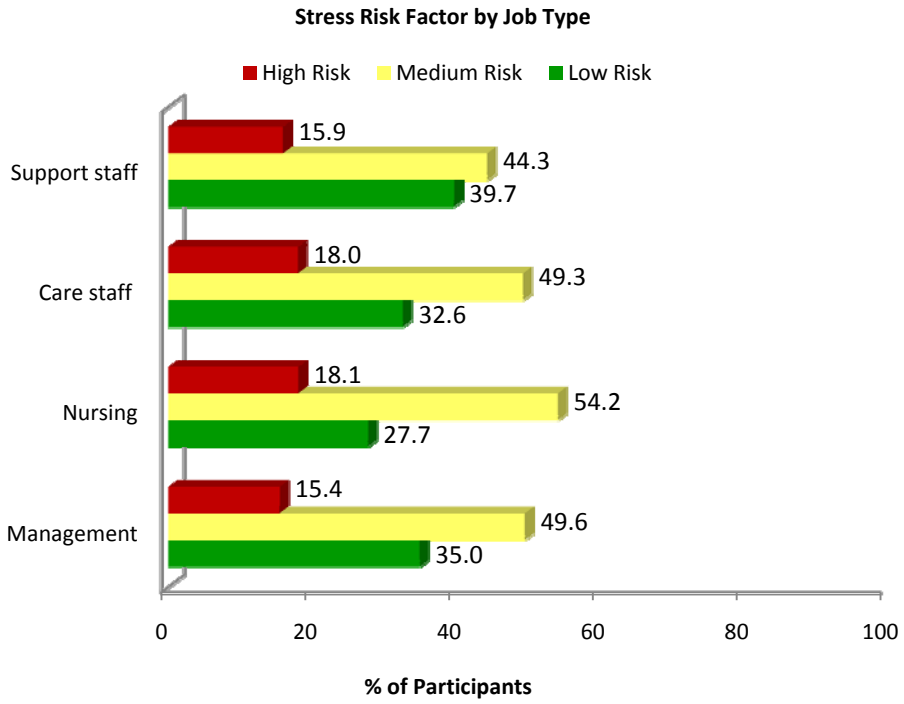
Smoking

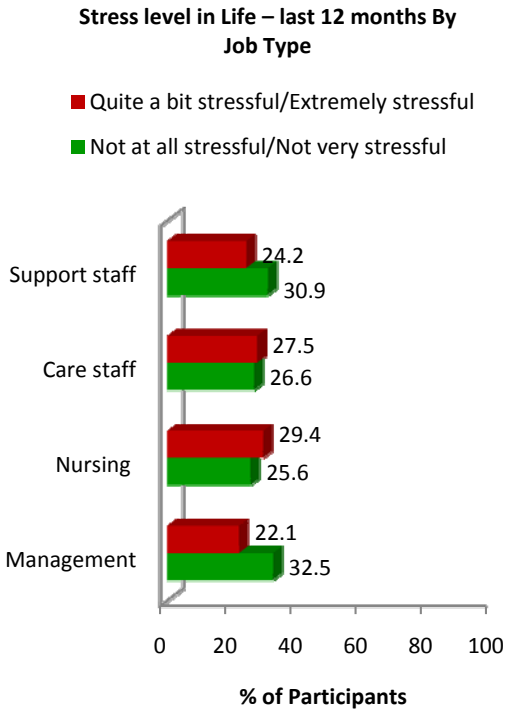


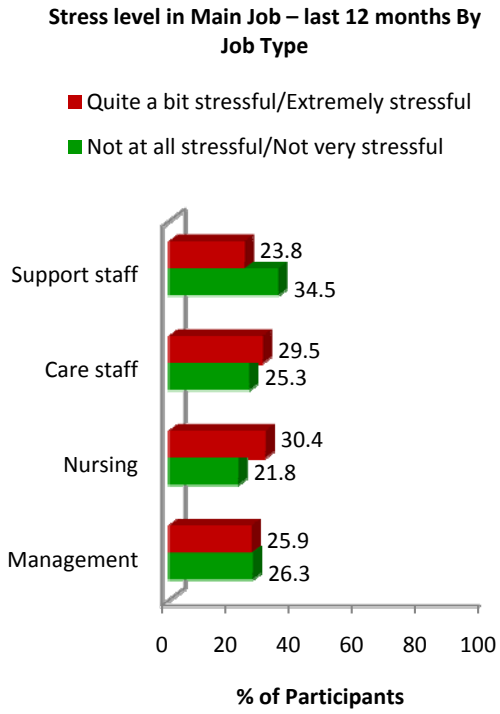
Alcohol Consumption



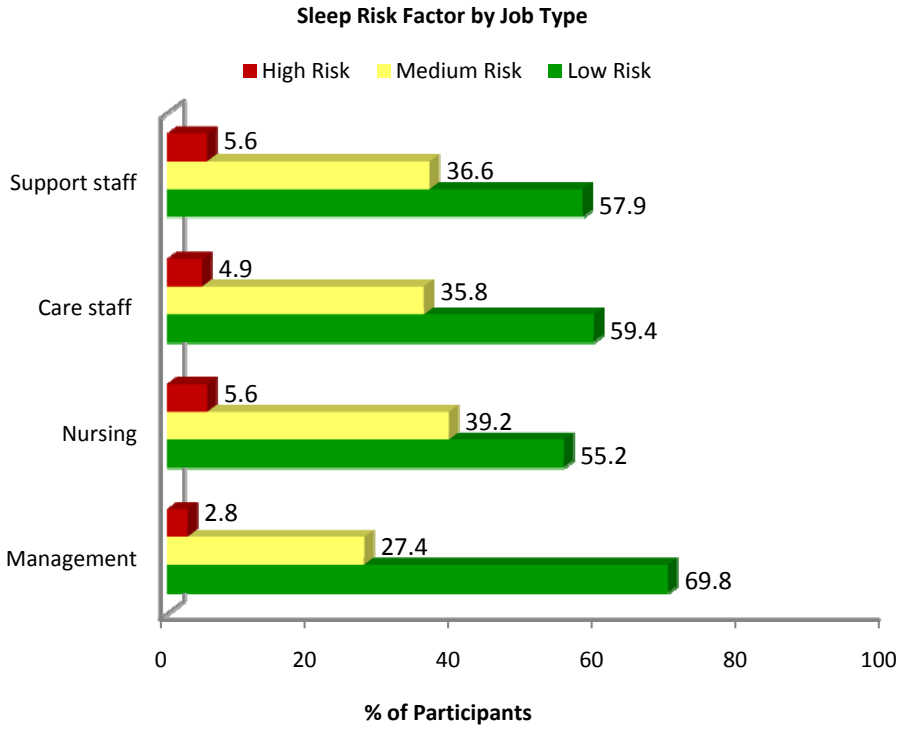
Stress




Stress level in Life – last 12 months By Job Type
Quite a bit stressful/Extremely stressful
Not at all stressful/Not very stressful
Support staff
Care staff
Nursing
Management
24.2
30.9
27.5
26.6
29.4
25.6
22.1
32.5
0
20
40
60
80
100
% of Participants

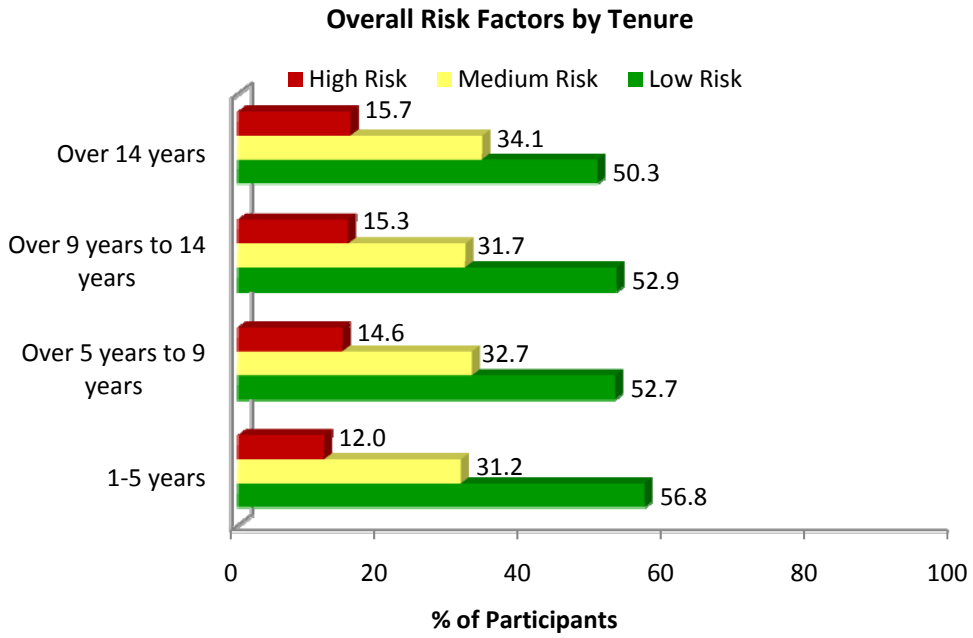

Stress level in Main Job – last 12 months By Job Type
Quite a bit stressful/Extremely stressful
Not at all stressful/Not very stressful
Support staff
Care staff
Nursing
Management
23.8
34.5
29.5
25.3
30.4
21.8
25.9
26.3
0
20
40
60
80
100
% of Participants

Sleep

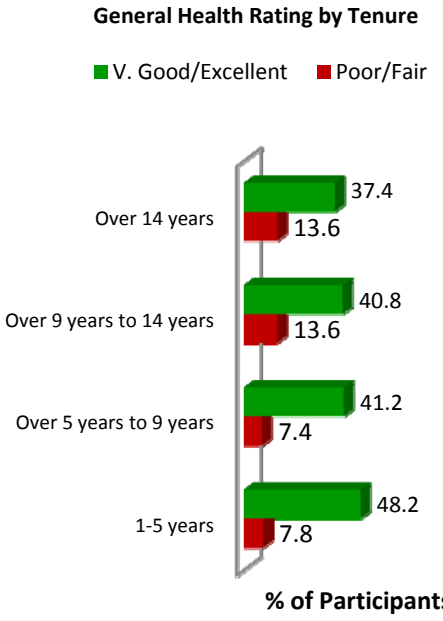

Sleep Risk Factor by Job Type
High Risk
Medium Risk
Low Risk
Support staff
Care staff
Nursing
Management
5.6
36.6
57.9
4.9
35.8
59.4
5.6
39.2
55.2
2.8
27.4
69.8
0
20
40
60
80
100
% of Participants

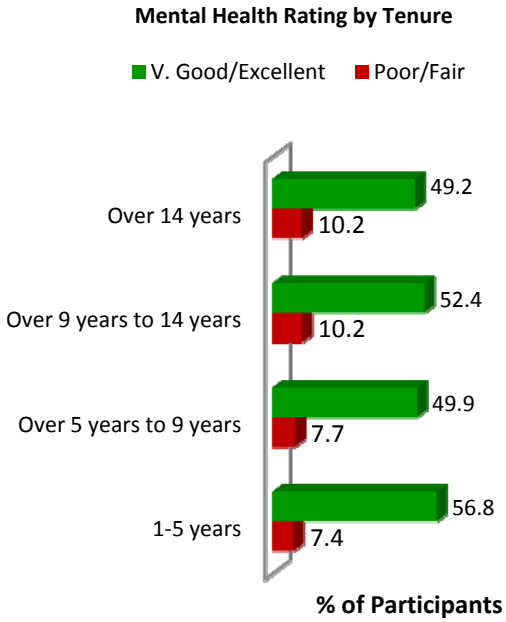
Appendix C: Risk Factors by Tenure

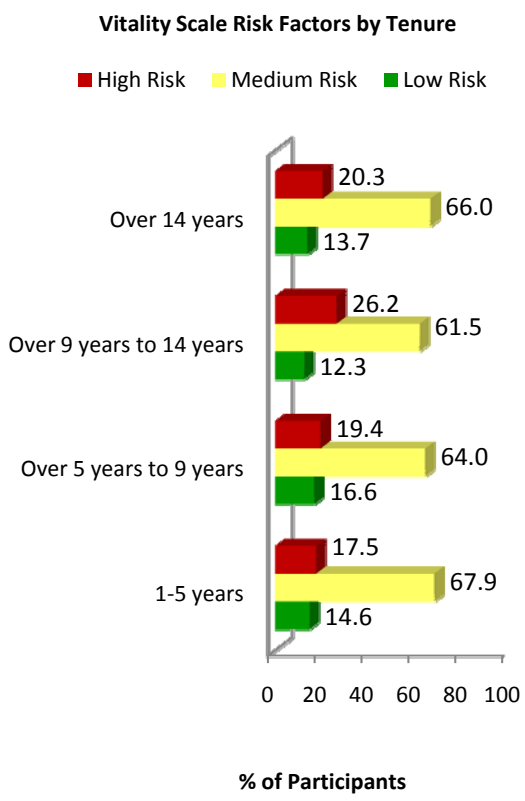
Overall Health and Wellbeing by Tenure

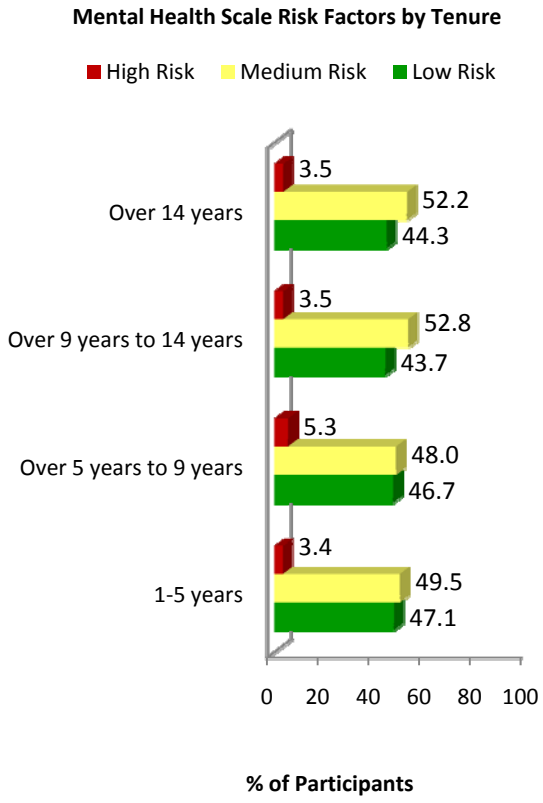


Self Reported Health Status



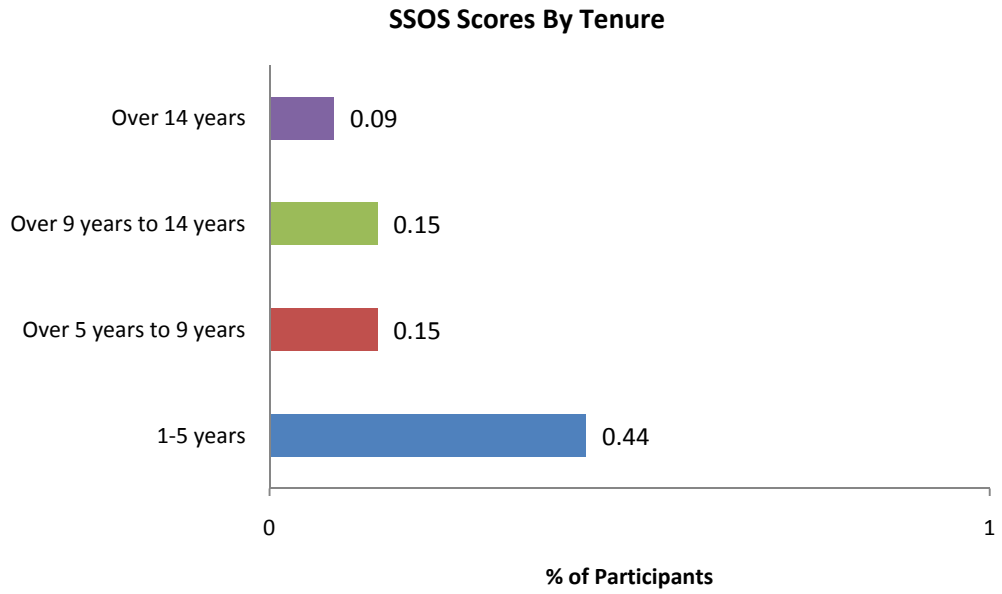



Vitality Scale Risk Factors by Tenure
High Risk
Medium Risk
Low Risk
Over 14 years
20.3
66.0
13.7
Over 9 years to 14 years
26.2
61.5
12.3
Over 5 years to 9 years
19.4
64.0
16.6
1-5 years
17.5
67.9
14.6
0
20
40
60
80
100
% of Participants


Mental Health Scale Risk Factors by Tenure
High Risk
Medium Risk
Low Risk
Over 14 years
3.5
52.2
44.3
Over 9 years to 14 years
3.5
52.8
43.7
Over 5 years to 9 years
5.3
48.0
46.7
1-5 years
3.4
49.5
47.1
0
20
40
60
80
100
% of Participants

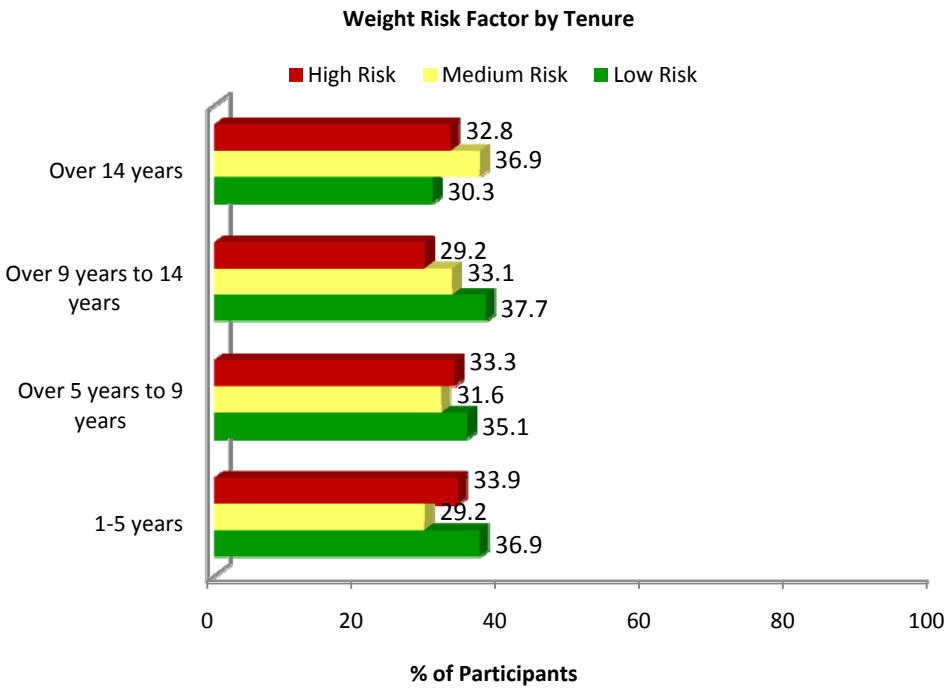
Health at Work by Tenure

	1 - 5 Years	Over 5 years to 9 years	Over 9 years to 14 years	Over 14 years	NBANH - All
Satisfaction with Supervisor	3.59	3.32	3.39	3.36	3.44
Organizational Satisfaction	3.63	3.33	3.36	3.30	3.43
Organizational Health and Safety Commitment	3.78	3.60	3.65	3.62	3.68
Work - Life Balance	3.45	3.38	3.50	3.48	3.46
Job Quality	3.28	3.14	3.10	3.07	3.16
Meaningful Work	4.54	4.41	4.51	4.43	4.48

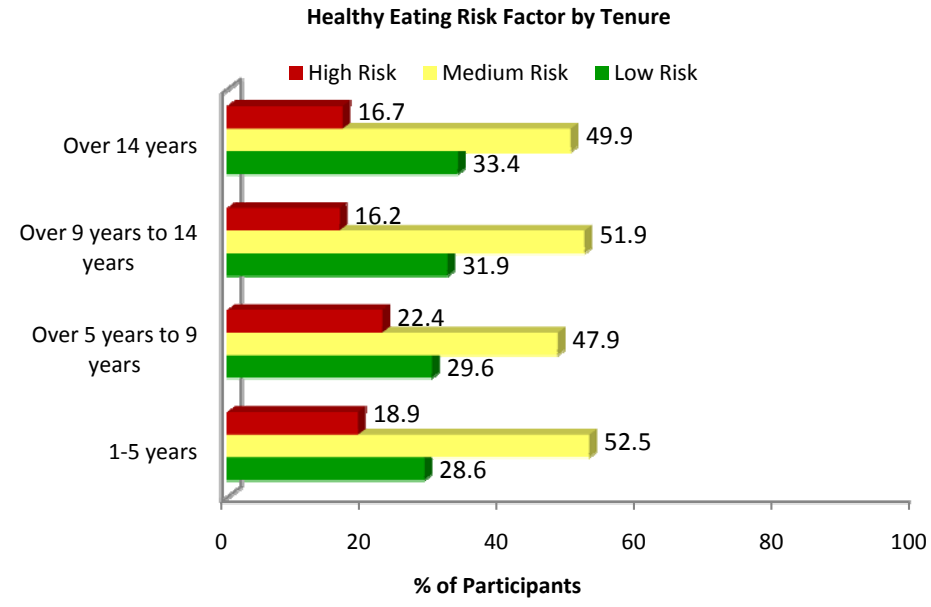


Lifestyle Risk Factors by Tenure

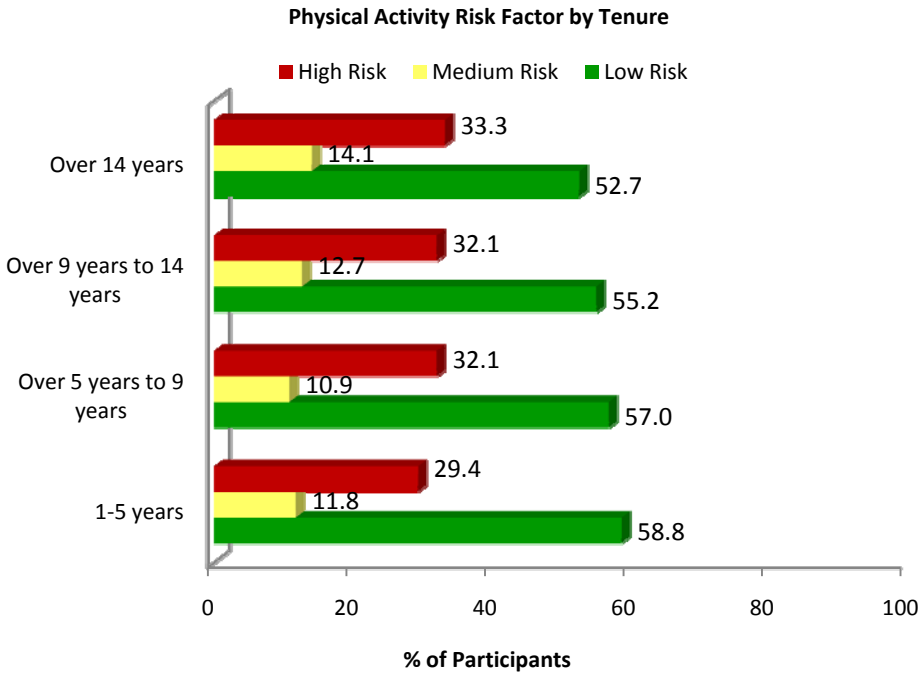
Weight Management



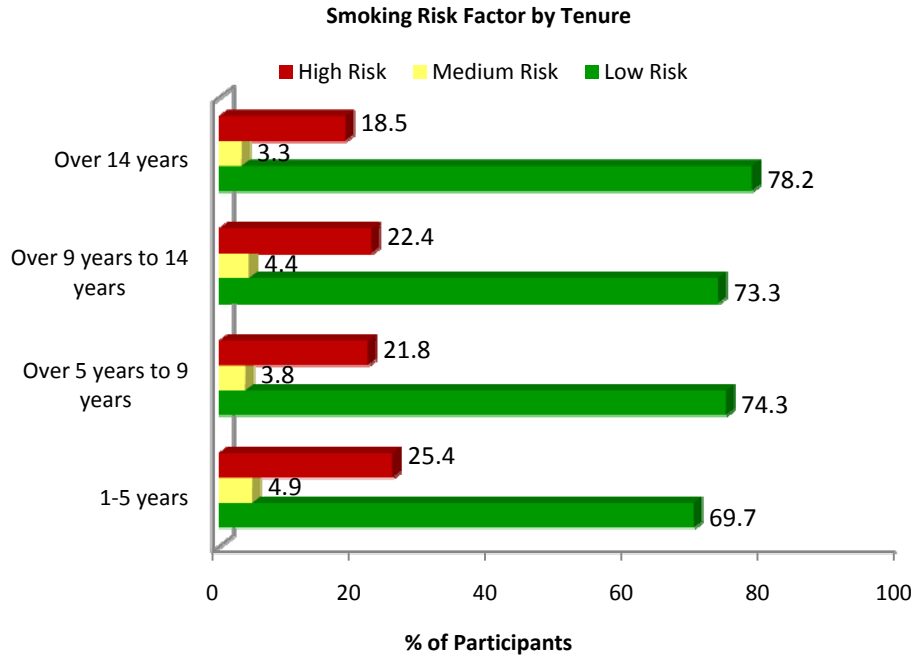
Healthy Eating



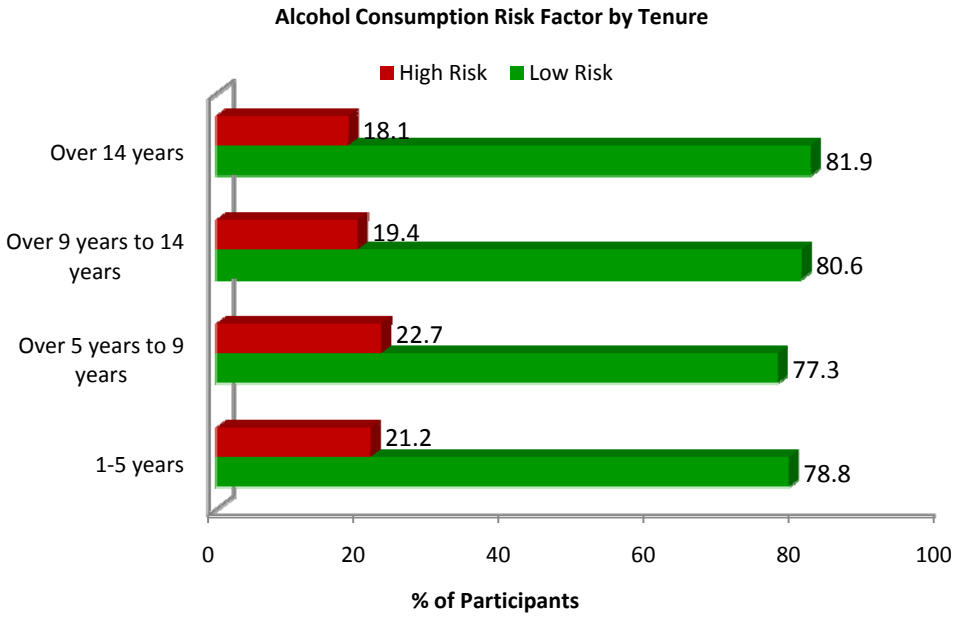
Physical Activity



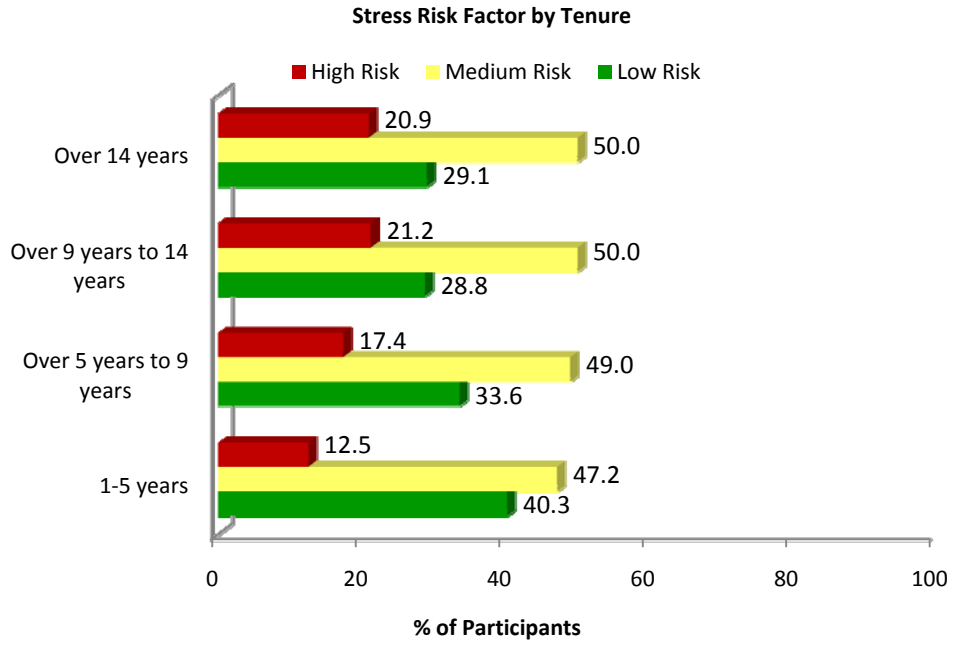
Smoking

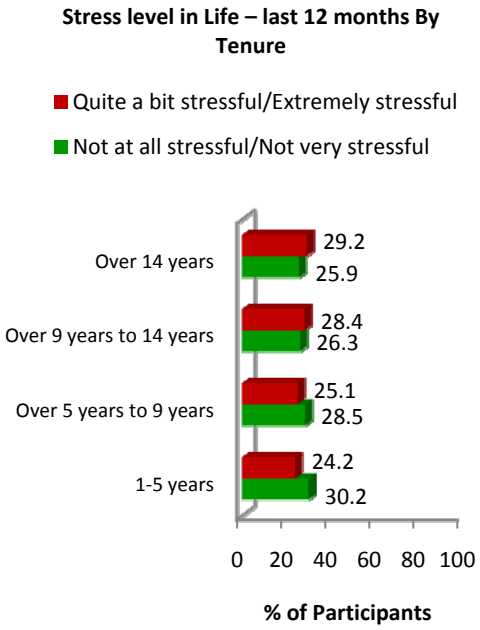


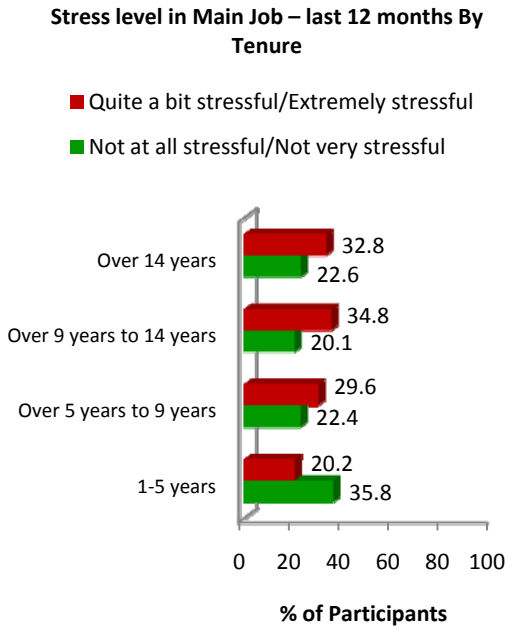
Alcohol Consumption



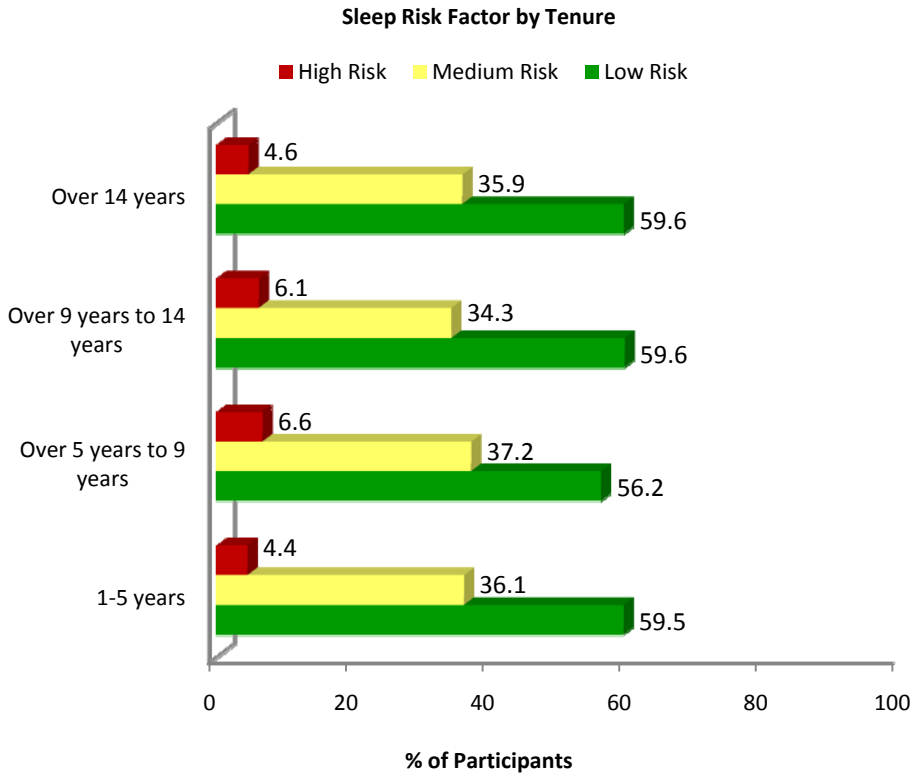
Stress




Stress level in Life – last 12 months By Tenure
Quite a bit stressful/Extremely stressful
Not at all stressful/Not very stressful
Over 14 years
29.2
25.9
Over 9 years to 14 years
28.4
26.3
Over 5 years to 9 years
25.1
28.5
1-5 years
24.2
30.2
0 20 40 60 80 100
% of Participants

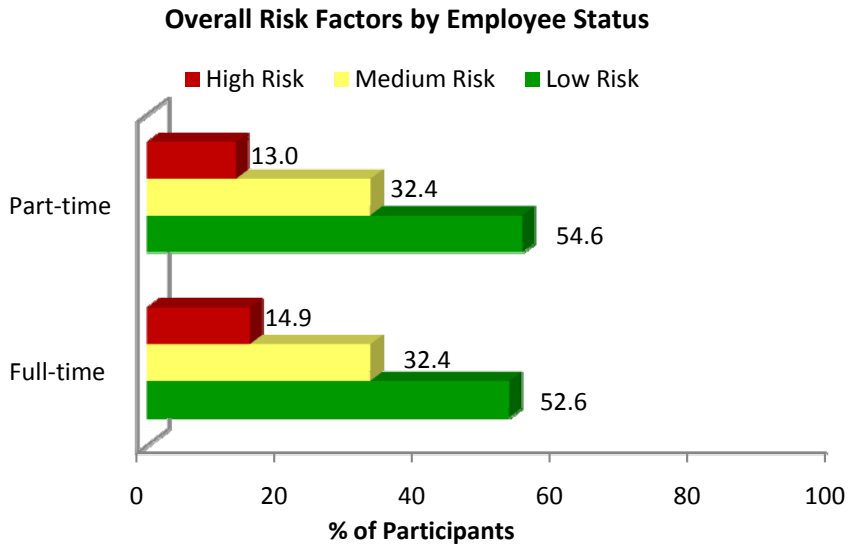

Stress level in Main Job – last 12 months By Tenure
Quite a bit stressful/Extremely stressful
Not at all stressful/Not very stressful
Over 14 years
32.8
22.6
Over 9 years to 14 years
34.8
20.1
Over 5 years to 9 years
29.6
22.4
1-5 years
20.2
35.8
0 20 40 60 80 100
% of Participants

Sleep

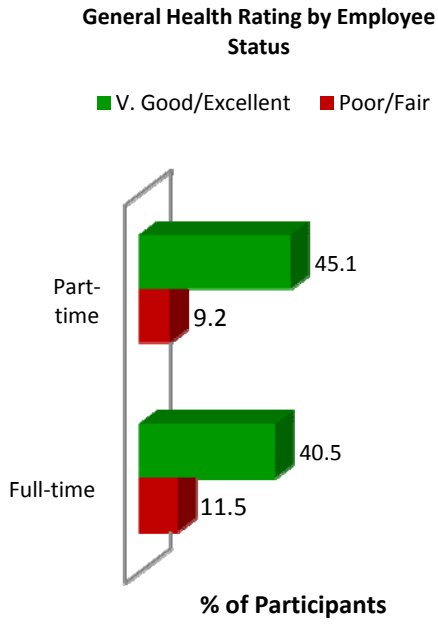

Sleep Risk Factor by Tenure
High Risk
Medium Risk
Low Risk
Over 14 years
4.6
35.9
59.6
Over 9 years to 14 years
6.1
34.3
59.6
Over 5 years to 9 years
6.6
37.2
56.2
1-5 years
4.4
36.1
59.5
0 20 40 60 80 100
% of Participants

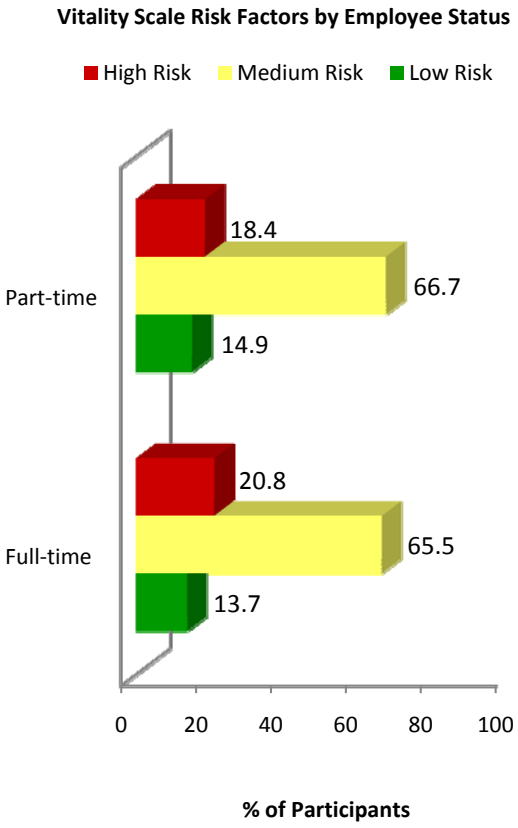
Appendix D: Risk Factors by Employee Status

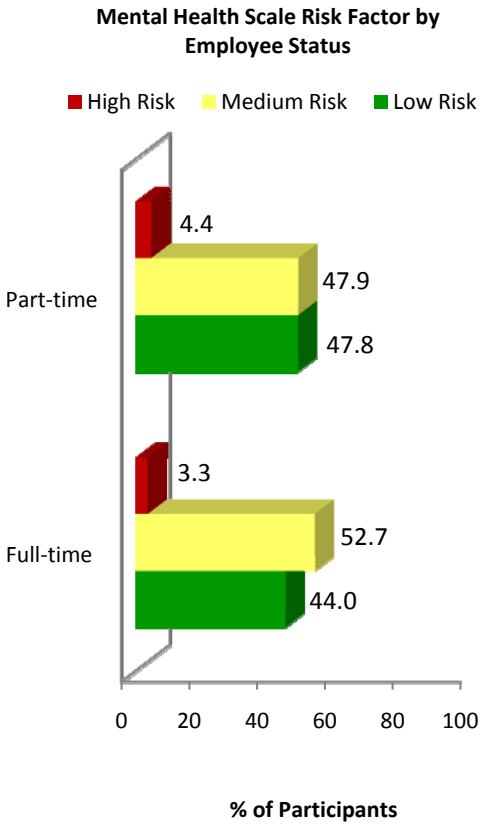
Overall Health and Wellbeing by Employee Status



Self Reported Health Status

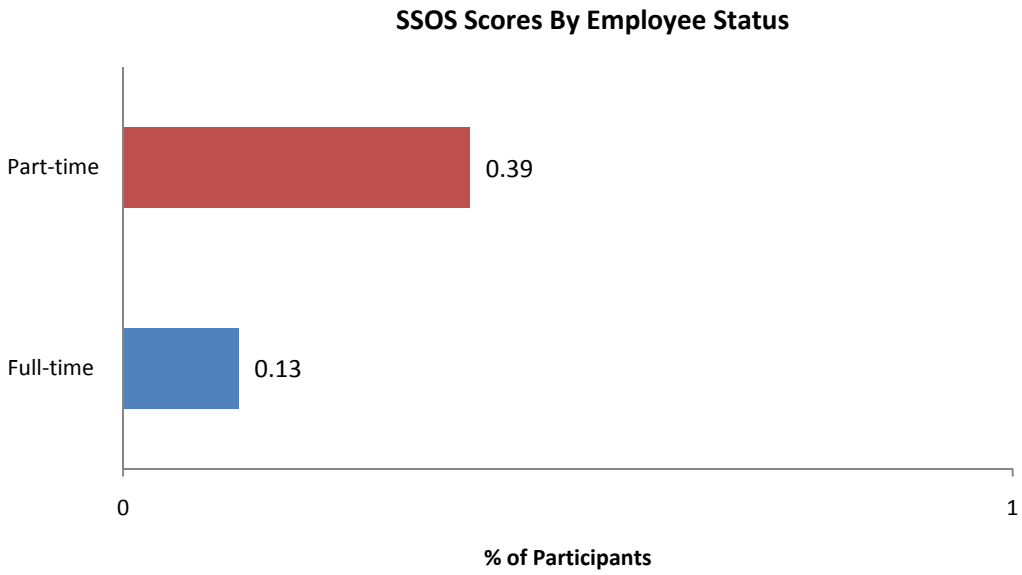



Vitality Scale Risk Factors by Employee Status
High Risk
Medium Risk
Low Risk
Part-time
18.4
66.7
14.9
Full-time
20.8
65.5
13.7
0
20
40
60
80
100
% of Participants


Mental Health Scale Risk Factor by Employee Status
High Risk
Medium Risk
Low Risk
Part-time
4.4
47.9
47.8
Full-time
3.3
52.7
44.0
0
20
40
60
80
100
% of Participants

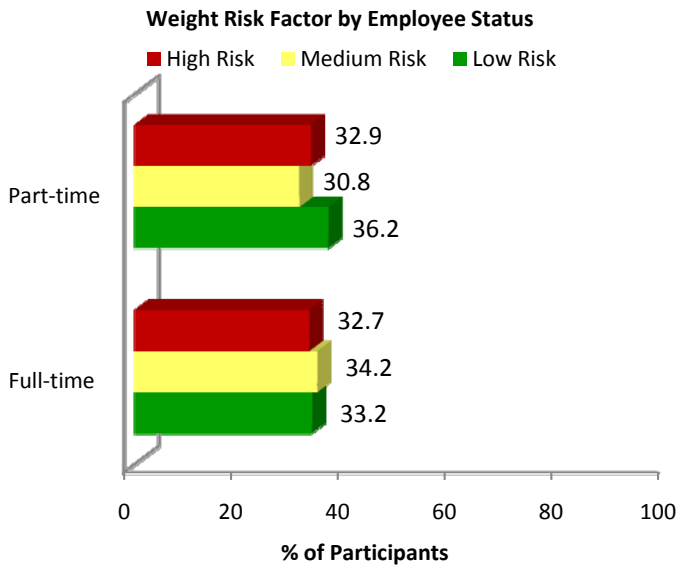
Health at Work by Employee Status

	Full-time	Part-time	NBANH - All
Satisfaction with Supervisor	3.38	3.53	3.44
Organizational Satisfaction	3.36	3.55	3.43
Organizational Health and Safety Commitment	3.64	3.74	3.68
Work - Life Balance	3.46	3.47	3.46
Job Quality	3.08	3.28	3.16
Meaningful Work	4.47	4.50	4.48



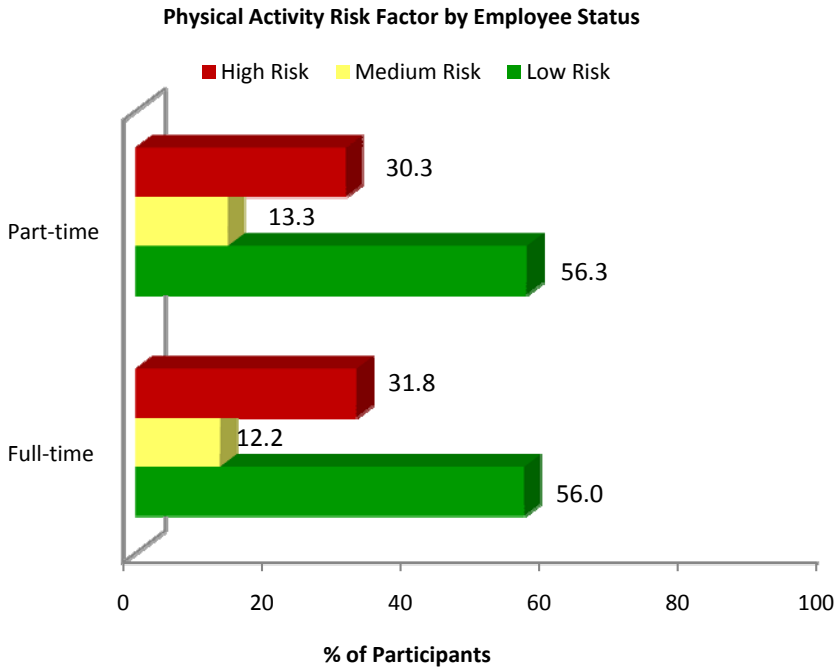
Lifestyle Risk Factors by Employee Status

Weight Management



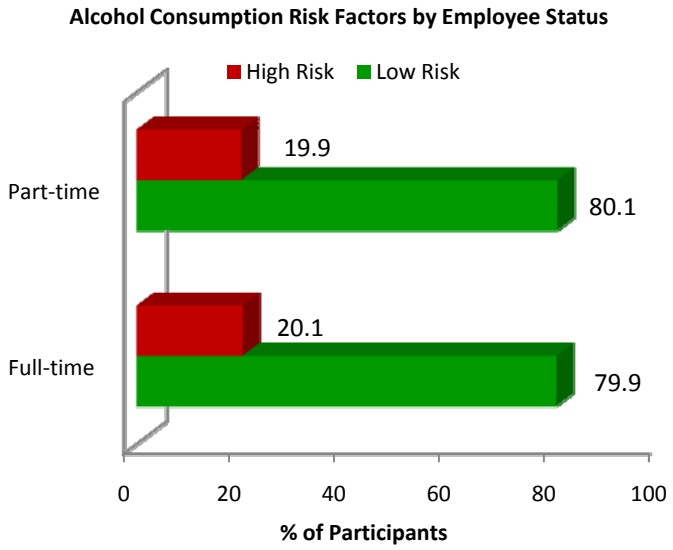
Healthy Eating

Physical Activity

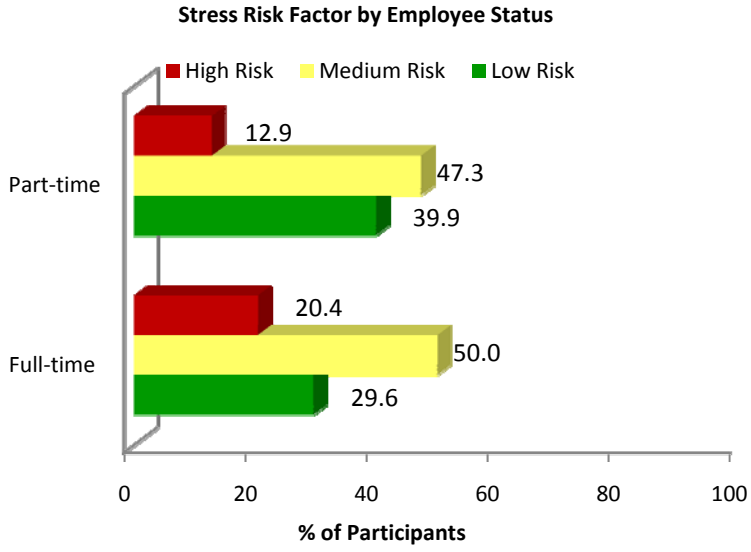


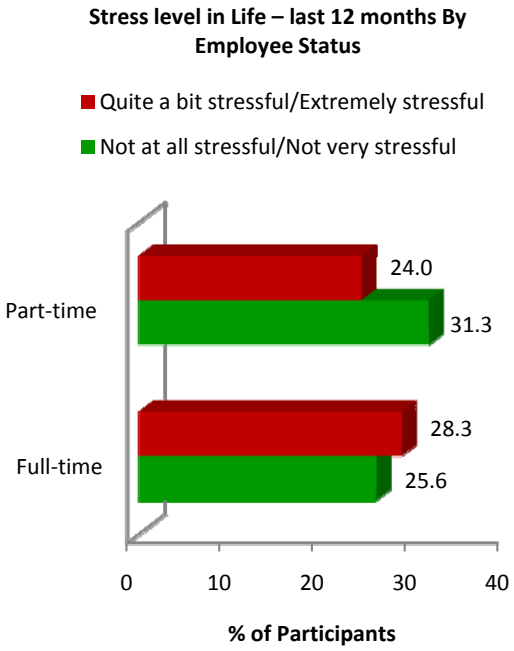
Smoking

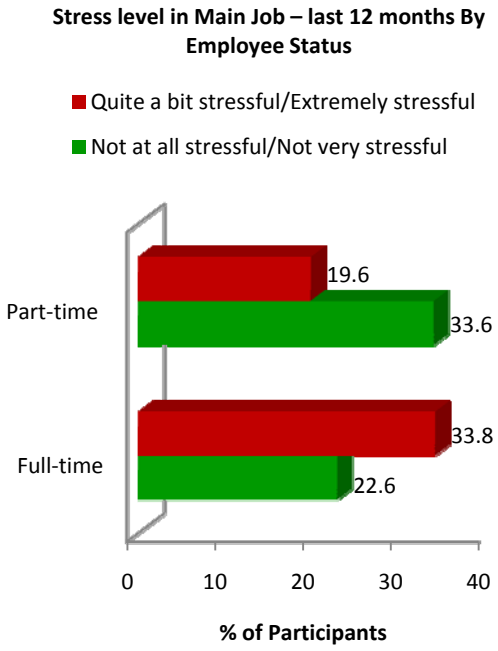
Alcohol Consumption



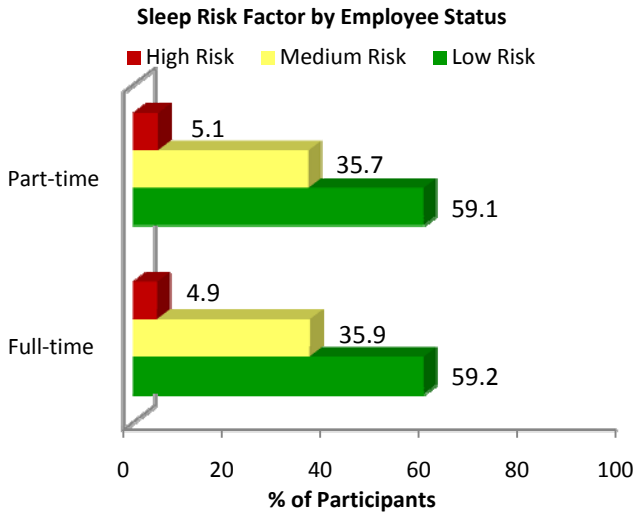
Stress




Stress level in Life – last 12 months By Employee Status
Quite a bit stressful/Extremely stressful
Not at all stressful/Not very stressful
Part-time
Full-time
24.0
31.3
28.3
25.6
0
10
20
30
40
% of Participants

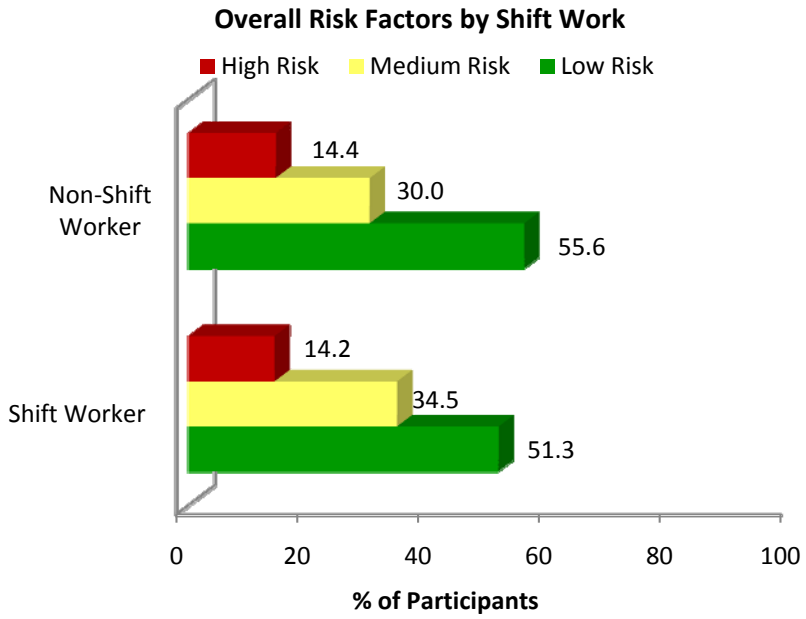

Stress level in Main Job – last 12 months By Employee Status
Quite a bit stressful/Extremely stressful
Not at all stressful/Not very stressful
Part-time
Full-time
19.6
33.6
33.8
22.6
0
10
20
30
40
% of Participants

Sleep

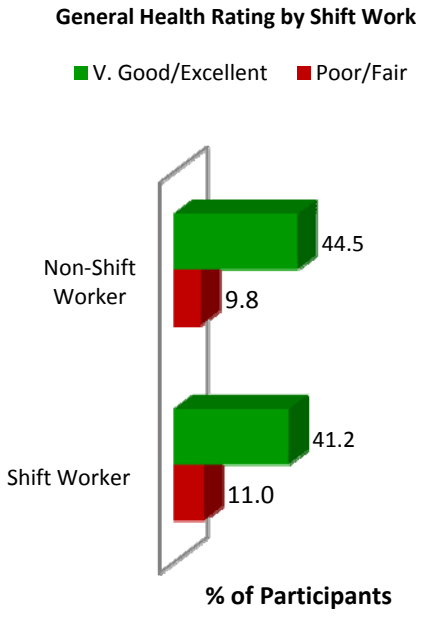

Sleep Risk Factor by Employee Status
High Risk
Medium Risk
Low Risk
Part-time
Full-time
5.1
35.7
59.1
4.9
35.9
59.2
0
20
40
60
80
100
% of Participants

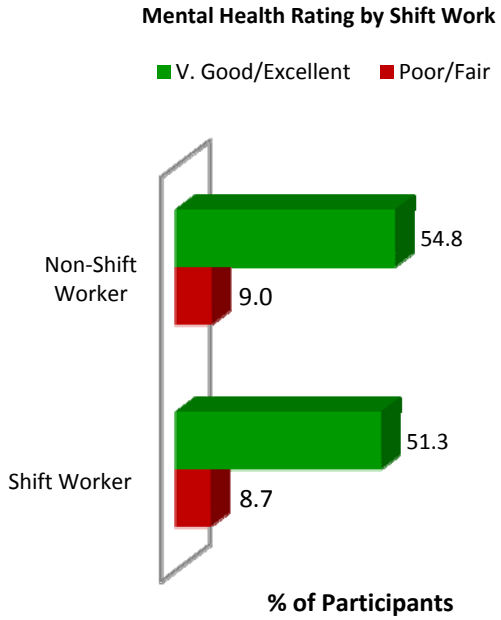
Appendix E: Risk Factors by Shift Work

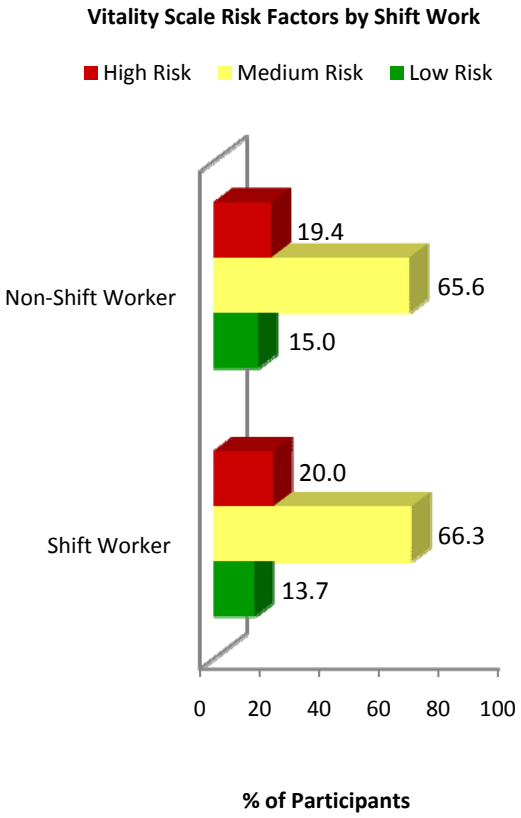
Overall Health and Wellbeing by Shift Work

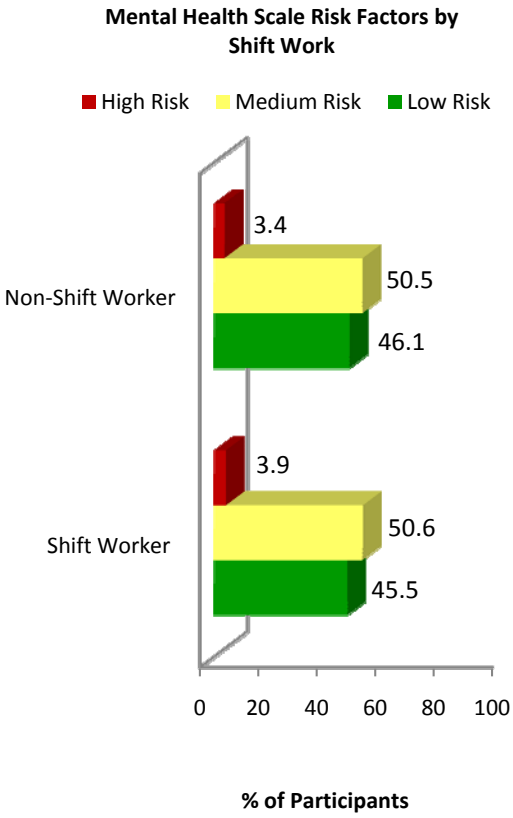


Self Reported Health Status



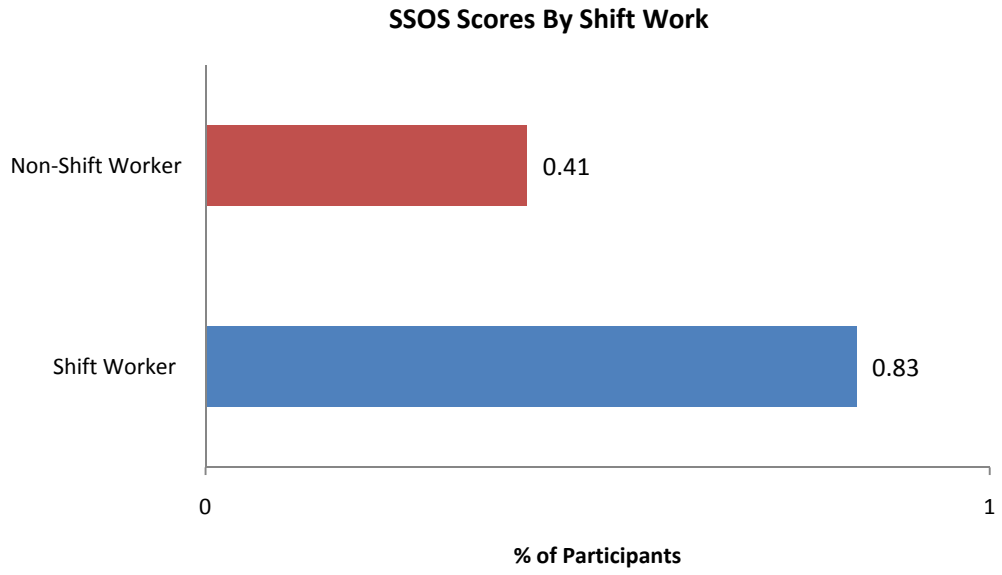



Vitality Scale Risk Factors by Shift Work
High Risk
Medium Risk
Low Risk
Non-Shift Worker
19.4
65.6
15.0
Shift Worker
20.0
66.3
13.7
0
20
40
60
80
100
% of Participants


Mental Health Scale Risk Factors by Shift Work
High Risk
Medium Risk
Low Risk
Non-Shift Worker
3.4
50.5
46.1
Shift Worker
3.9
50.6
45.5
0
20
40
60
80
100
% of Participants

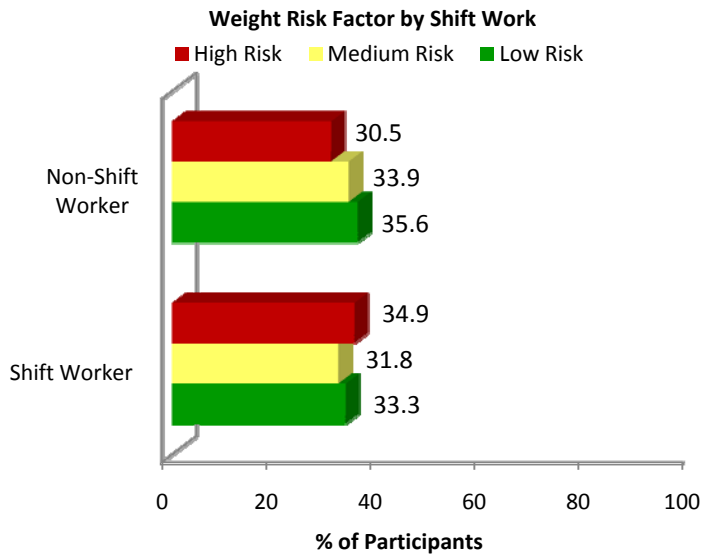
Health at Work by Shift Work

	Shift Worker	Non-Shift Worker	NBANH - All
Satisfaction with Supervisor	3.34	3.56	3.44
Organizational Satisfaction	3.35	3.54	3.43
Organizational Health and Safety Commitment	3.56	3.82	3.68
Work - Life Balance	3.30	3.67	3.46
Job Quality	3.15	3.17	3.16
Meaningful Work	4.51	4.45	4.48



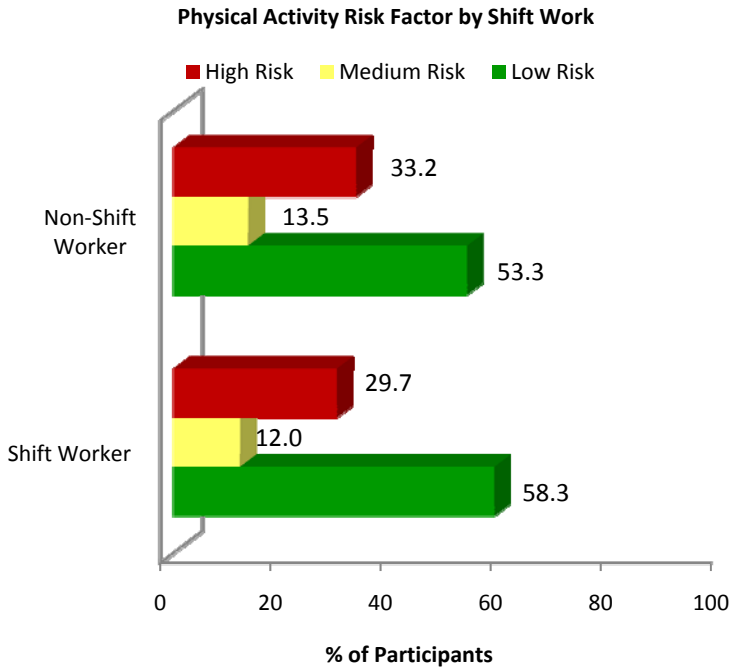
Lifestyle Risk Factors by Shift Work

Weight Management

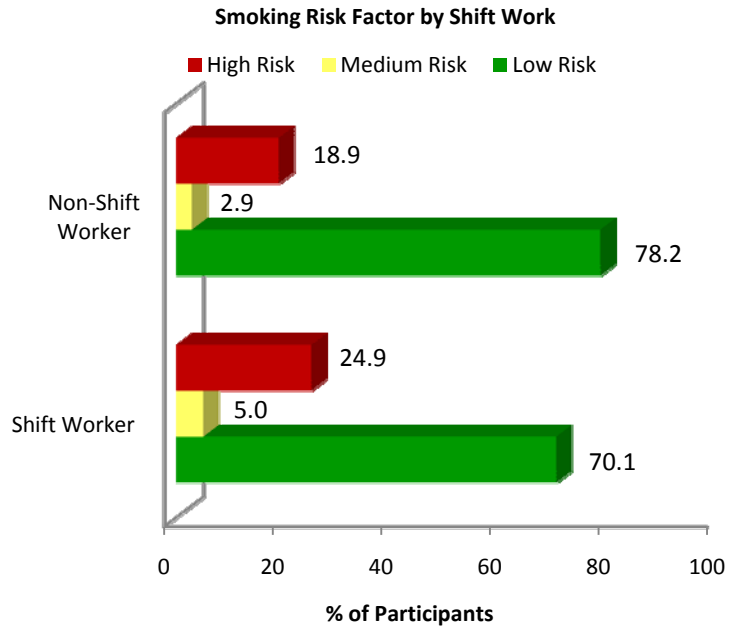


Healthy Eating

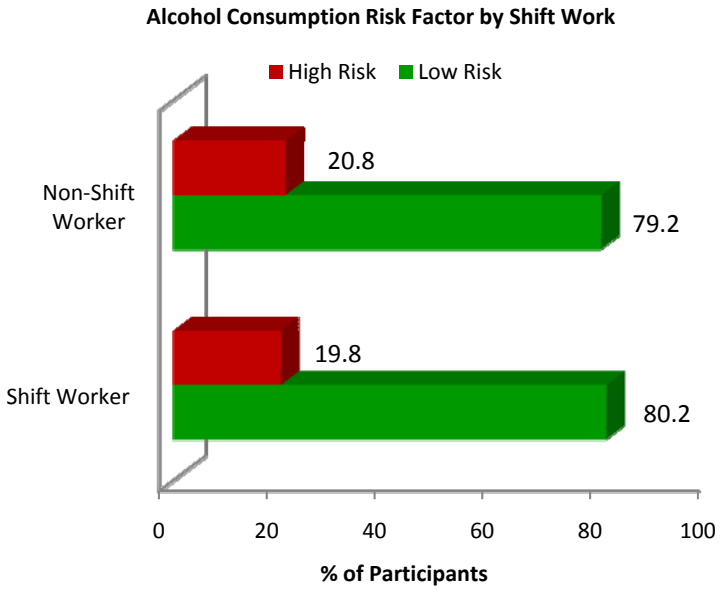
Physical Activity



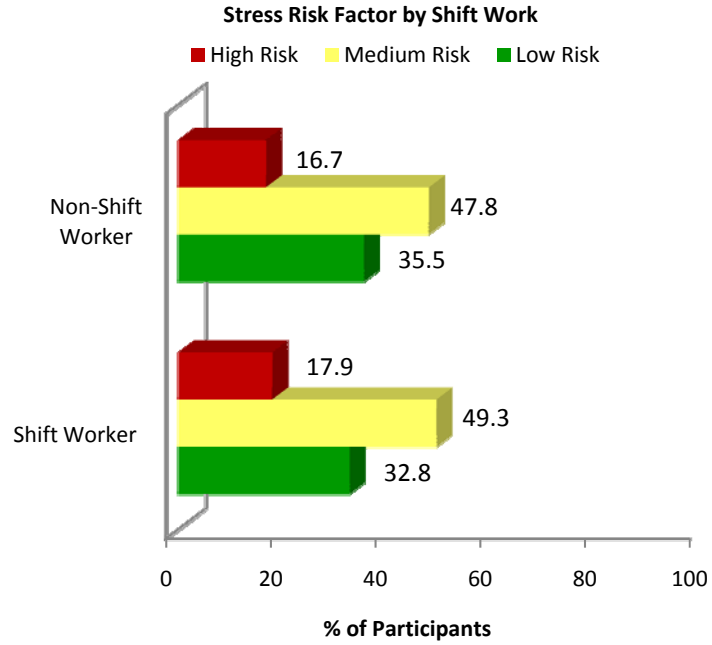
Smoking

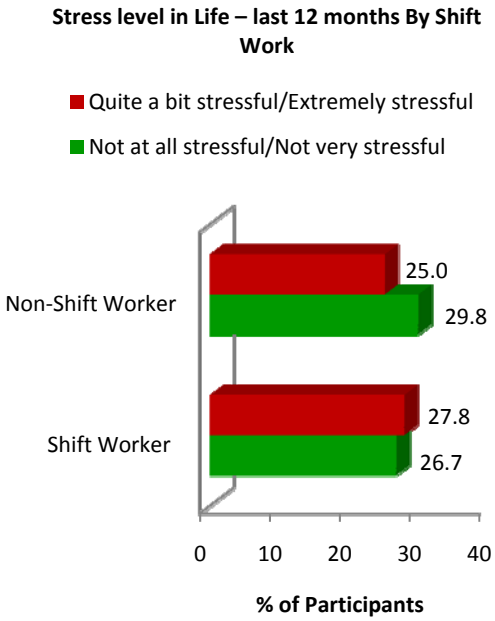


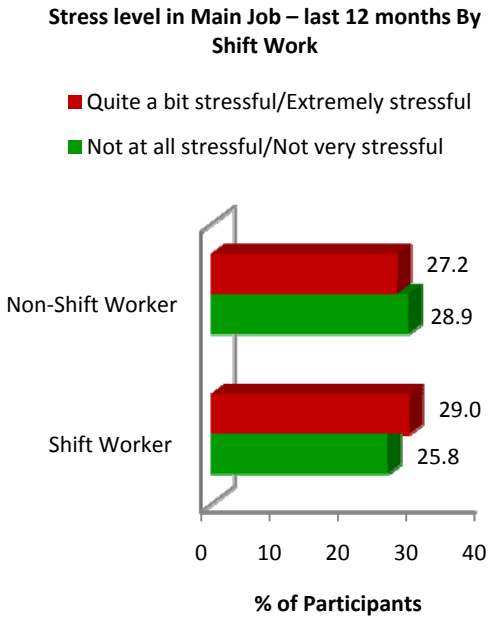
Alcohol Consumption



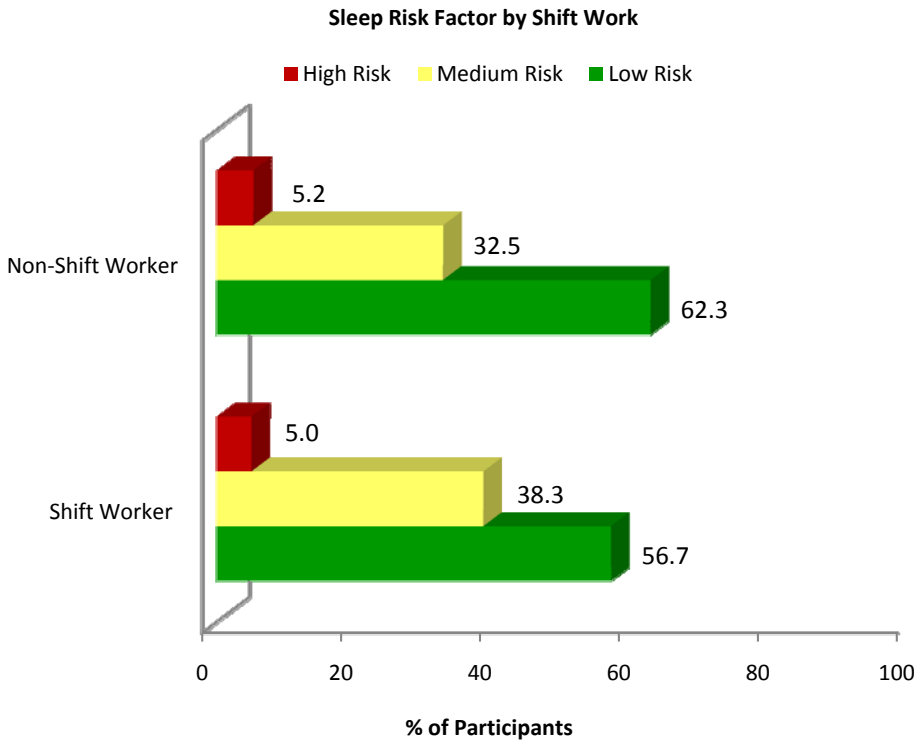
Stress




Stress level in Life – last 12 months By Shift Work
Quite a bit stressful/Extremely stressful
Not at all stressful/Not very stressful
Non-Shift Worker
Shift Worker
25.0
29.8
27.8
26.7
0
10
20
30
40
% of Participants


Stress level in Main Job – last 12 months By Shift Work
Quite a bit stressful/Extremely stressful
Not at all stressful/Not very stressful
Non-Shift Worker
Shift Worker
27.2
28.9
29.0
25.8
0
10
20
30
40
% of Participants

Sleep


Sleep Risk Factor by Shift Work
High Risk
Medium Risk
Low Risk
Non-Shift Worker
Shift Worker
5.2
32.5
62.3
5.0
38.3
56.7
0
20
40
60
80
100
% of Participants

Appendix F: List of Nursing Homes by Region

- Region 1

  Drew Nursing Home

  Forest Dale Home Inc.

  Foyer Saint-Antoine

  Jordan Lifecare Centre

  Kenneth E. Spencer Memorial Home

  Le Foyer St-Thomas de la Vallée De Memramcook Inc.

  Manoir St-Jean Baptiste Inc.

  Rexton Lions Nursing Home Inc.

  The Salvation Army Lakeview Manor

  Villa du Repos Inc.

  La Villa Maria Inc.

  Villa Providence Shediac Inc.

  Westford Nursing Home

- Region 2

  Campobello Lodge Inc.

  Carleton Kirk Lodge

  Church of St. John & St. Stephen Home Inc.

  Dr. V.A. Snow Centre Inc.

  Fundy Nursing Home

  Grand Manan Nursing Home

  Kennebec Manor Inc.

  Kings Way Care Centre

  Kiwanis Nursing Home Inc.

Lincourt Manor Inc.

Loch Lomond Villa Inc.

Passamaquoddy Lodge Inc.

Rocmaura Inc.
Turnbull Nursing Home Inc.

- Region 3

Carleton Manor Inc.

Central Carleton Nursing Home Inc.

Central NB Nursing Home Inc.

Mill Cove Nursing Home Inc.

Nashwaak Villa

Orchard View

Pine Grove

River View Manor Inc.

Tobique Valley Manor Inc.

Victoria Glen Manor Inc.

Wauklehegan Manor

W.G. Bishop Nursing Home

White Rapids Manor Inc.

Windsor Court

York Manor Inc.

- Region 4

Foyer Notre-Dame de St-Léonard Inc.

Foyer St-Joseph de Saint-Basile Inc.

Foyer Ste-Elizabeth Inc.

Manoir de Grand-Sault Inc.

Résidence Mgr. Melanson Inc.

Villa des Jardins Inc.

- Region 5

  Campbellton Nursing Home Inc.

  Dalhousie Nursing Home Inc. / Foyer de soins de Dalhousie Inc.

- Region 6

  Foyer Notre-Dame de Lourdes Inc.

  Manoir Edith B. Pinet Inc.

  Les Résidences Inkerman Inc.

  Les Résidences Mgr. Chiasson Inc.

  Résidences Lucien Saindon

  Villa Beauséjour Inc.

  Villa Chaleur Inc.

  Villa Sormany Inc.

  Villa St-Joseph Inc.

- Region 7

  Foyer Assomption Enrg

  Miramichi Senior Citizens Home

  Mount St. Joseph Nursing Home

  Tabusintac Nursing Home Inc.

Occupational Health and Safety Best Practices Review

October 7th, 2010

For:
New Brunswick Association of Nursing Homes (NBANH)

Presented by:
Gillian Dawson
Workplace Health Research Consultant
The Shepell•fgi Research and Health Consulting Group

Table of Contents

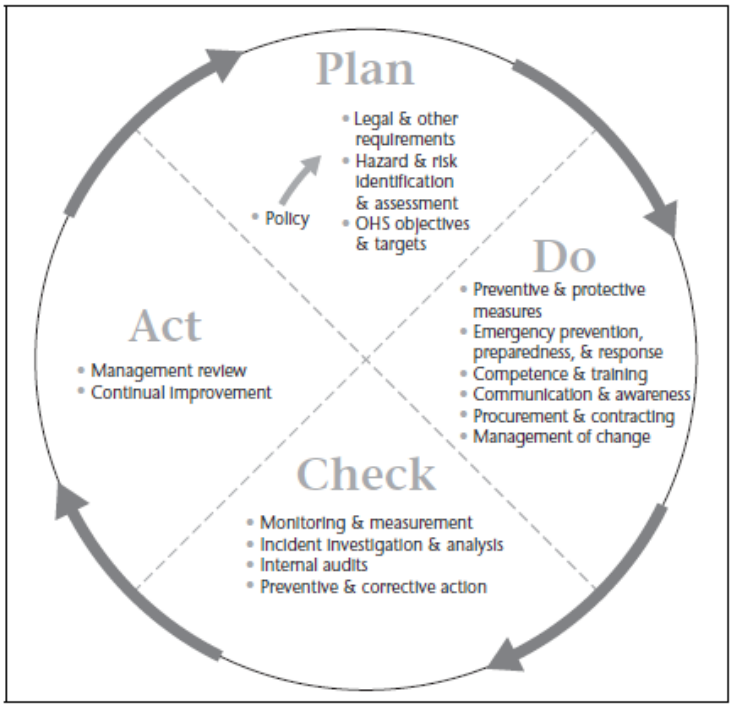
Executive Summary

New Brunswick Association of Nursing Homes (NBANH) partnered with The Shepell•fgi Research and Health Consulting Group to implement a review of its Occupational Health and Safety (OHS) program, as part of a broader initiative that will bring a wellness program to its sector. This review included two levels of investigation – a questionnaire and interviews – and sought to identify gaps and best practices from the participating nursing homes.

Benefits of this review process:

- ✓ Provides process indicators
- ✓ Creates a 'map' to create an effective OHS Program at the policy, procedure and practice level
- ✓ Clarifies required OHS planning and evaluation initiatives
- ✓ Evaluates policies, procedures and practices against best practice
- ✓ Identifies key actions to address needs and issues
- ✓ Identifies existing best practices

Accordingly, this review marks a key effort to achieve 'best practice' in the delivery of Occupational Health and Safety services and programs, and begins movement toward developing a comprehensive, 'gold standard' Occupational Health and Safety Management System (OHSMS). OHSMS's reflect the principles of quality, due diligence and evidence based decision making. Implemented fully, they support the creation of prevention programs that are systematically planned, implemented, evaluated and continuously improved. Based on the continual assessment of risks and organizational capabilities, OHSMS focus more on need and less on meeting legislated requirements. In this way, OHS becomes more of a strategic, proactive health management program for an organization.



(Canadian Standards Association Publication, Occupational Health and Safety Management, 2006)

Overall Findings

For each of the following OHS areas, one or more indicators, for a total of sixty-eight (68) indicators that are relevant to OHS[1], were assessed. The following are the results:

Best Practice Area	Overall Assessment[2]
OHS Leadership Commitment and Participation	
OHS Policy	
OHS Plan	
OHS Procedures and Practices	
OHS Competency, Education and Training	
OHS Documentation and Data Management	
OHS Monitoring and Evaluation	

Major gaps

Health and Safety Leadership, Commitment and Participation

- No major gaps

Health and Safety Policy

- The OHS policy does not clearly outline a clear commitment to continual improvement
- The OHS policy does not clearly outline a framework for setting and reviewing objectives and indicators
- The OHS policy is not annually reviewed and updated

Health and Safety Planning

- An adequate plan is not created each year to facilitate the achievement of OHS goals and objectives

Health and Safety Procedures and Practices

- The consistency of practices associated with the procedures is not ensured or measured
- The effectiveness of any corrective action taken is not evaluated

OHS Competency, Education and Training

- Competence requirements for all of our jobs are not established or regularly reviewed

[1] The 68 OHS indicators are a subset of over one hundred indicators that are used by Morneau Sobeco - Shepell·fgi in comprehensively assessing Workplace Health Systems.

[2] Green = on track or significant process toward being on track. Yellow = opportunity area or very early progress that still requires development. Red = significant gap

- There is not a system in place to ensure that workers are competent to carry out all aspects of their duties
- Employees are not updated or regularly trained on OHS policy, procedures and activities

OHS Data Management

- There is a not an adequate system in place for the development, tracking and control of all of the documents and records
- Confidentiality of OHS records is maintained, however, how data is stored does not easily allow to access to pertinent data without pulling case files
- OHS data is not entered in a database, nor is it used to create integrated (aggregate) reporting

OHS Monitoring and Evaluation

- There are not adequate procedures in place or consistently implemented for the monitoring and measurement of the OHS program
- There are not adequate resources in place (financial, human) for the implementation of the OHS program evaluation
- There is not internal OHS audit process in place at any of the participating homes
- There is no internal OHS audits criteria for auditor competency
- Internal OHS audits are conducted, nor are there presently plans to do so
- Since audits are not happening, the results of internal OHS audits cannot be reported to our leadership and other stakeholders

Key Opportunities

Health and Safety Leadership, Commitment and Participation

- ✓ Develop a strategy for employee engagement in OHS
- ✓ Focus on strengthening the governance of the OHS
- ✓ Support managers and supervisors to effectively champion the OHS Program
- ✓ Devise a plan to increase support for JHSC

Health and Safety Policy

- ✓ Conduct a comprehensive policy review
- ✓ Develop a strategy to more effectively communicate the OHS Policy

Health and Safety Planning

- ✓ Conduct a comprehensive review of OHS planning needs
- ✓ Create and document an annual OHS plan

Health and Safety Procedures and Practices

- ✓ Create an updated strategy for risk identification and prevention
- ✓ Design an OHS change management procedure
- ✓ Review and update procedures for investigation and reporting

OHS Competency, Education and Training

- ✓ Create a mechanism to capture and utilize education and training data
- ✓ Review and more effectively plan OHS training initiatives
- ✓ Develop a strategy to assess and review OHS job competencies.

OHS Data Management

- ✓ Review systems for OHS records management
- ✓ Review systems for OHS document control
- ✓ Create a data management strategy
- ✓ Create a comprehensive OHS database

OHS Monitoring and Evaluation

- ✓ Conduct a review of all monitoring activities
- ✓ Develop and evaluation strategy and plan

Introduction

New Brunswick's healthcare sector is a diverse and complex sector comprised of numerous occupations. The healthcare system in New Brunswick faces a large demand for health care services from the population. Although many programs have been implemented to address the gap between the large demands of health services and the supportive resources, more investment and work is required to help the healthcare sector function smoothly.

The healthcare sector in general faces key human resources challenges, many of which are akin to the sector's current tight labour market in Canada. Reduced birth rates have shrunk the size of cohorts available for recruitment into the healthcare sector. As a result, Canada is currently experiencing a marked shortage of human capital in the healthcare sector, specifically in the area of geriatric medicine. Moreover, overall the Canadian population is aging at a faster rate than the birth rates. There seems to be a wide consensus that the demand for health services tends to rise as populations age. Elderly dependency ratios are projected to be much higher in the Atlantic Provinces and Quebec compared to Ontario and the western provinces, given the smaller echo generation, lower immigration and higher out-migration among younger generations. The large demand of healthcare services paired with labour shortage has the potential to influence many personal and organizational health issues.

High job demands as well as increased personal stress and stress in the work environment lead to increased psychosocial risks, including to those factors which impact employment relationships, engagement, conflict and communication. Long-term healthcare employees, in particular, experience high incidence of violence in the workplace (physical, emotional and sexual), adding injury, stress and unpleasantness to the already strenuous working conditions. What is more, an aging workforce also naturally drives utilization of health supports and poses increased personal and organizational risks due to health status. These factors together beckon the need for strong occupational health and safety systems, health benefits and workplace health promotion programs at the best of times, and more so to optimally support health and productivity at a time of growth.

Accordingly, a workforce health and productivity strategy, which includes a comprehensive Occupational Health and Safety Management System, will need to balance responding to the immediate labour force needs of the long-term healthcare sector, while also getting 'up-stream' and better supporting the leading determinants of health.

Demographic Factors

- Part-time workers made up about 20 percent of the healthcare workforce as a whole in 2008
- About 16% of all nurses work in long-term care facilities (2005 National Survey of the Work and Health of Nurses)
- Ten of the 20 fastest growing occupations are healthcare related

Workplace Factors

- Many unionized occupations
- High incidence of experiencing violence/bullying at work

  - 16.8% of registered nurses and one quarter (24.6%) of licensed practical nurses, registered practical nurses, and registered nursing assistants experience violence on a daily basis (York University Study, 2008)
  - 43% of long-term personal support workers endure physical violence at work on a daily basis, while another 25% face such violence every week. Most were women, and many were immigrants or from marginalized racial groups (York University Study, 2008)
  - Approximately one third (30.1%) of long-term personal support workers experienced unwanted sexual attention on a daily or weekly basis (York University Study, 2008)
  - Canadian long term personal support workers are almost *seven times* more likely to experience violence on a daily basis than workers in Nordic countries, implying that the high level of violence in Canadian facilities is not necessary and can be reduced
- Multi-generational workforce
- Almost three in every five health-care workers are suffering from "role overload"

Occupational Factors

- The shortage of workers places more demands on the long-term healthcare employees
  - Working short-staffed is the norm in the Canadian healthcare industry and is experienced more or less every day by nearly half (43.8%) of Canadian long-term personal support workers
- Among long-term personal support workers involved in direct ŴŜăλŘŜyű care, 36.3% suffer of back strain from lifting ŴŜăλŘŜyűă and equipme nt (York University Study, 2008)
- Jobs are often emotionally demanding, and often require shift work with long hours
- Among Canadian long-term personal support workers, 39.6% were found to be mentally exhausted (York University Study, 2008)
- Canadian long-term personal support workers finish work almost always (62.9%) physically tired (York University Study, 2008)
- Incidence of occupational injury and illness are high among healthcare workers

Social-Economic Factors

- The health care industry is one of the fastest growing industries in the world, as it offers millions of jobs around the world
- Most workers have jobs that require less than 4 years of college education, but health diagnosing and treating practitioners are highly educated
- Varying employment rate depending on the occupation
- Increasing and above-average wages
- Increasing competition for workers with the other provinces in Canada
- Competition is increasing healthcare employees mobility across geographical locations (between Canadian provinces and internationally)
- Increased use of immigration and the Temporary Foreign Worker program to address some labour force pressures
- New Brunswick nurses had the highest absenteeism rate in 2005 (CNA Absenteeism and Overtime among nurses report)

- Turnover rates among long-term personal support workers range from 40% to 70%, though in some institutions turnover is as high as 500% (York University Study, 2008)

Health Factors in New Brunswick

- Some risk factors directly related to chronic disease (obesity, poor nutrition, smoking, and heavy drinking) are well above the national average in New Brunswick
- New Brunswick is noted as one of the least healthy provinces in the country
- Chronic diseases are among the most common and costly health problems facing New Brunswickers
    - Approximately 77% of New Brunswickers reported having been diagnosed with one or more chronic diseases (CCHS Cycle 3.1, 2005).
- New Brunswick residents have higher obesity rates than the national average
- The rates of diabetes in the Eastern provinces have been noted to be significantly higher than the national average
    - Males in New Brunswick had the third highest prevalence of diabetes of all provinces and territories in Canada.
    - Females in New Brunswick had the second highest prevalence of diabetes of all provinces and territories in Canada

Methodology

To conduct this study, Shepell•fgi developed an assessment tool for evaluating existing policies, procedures and practices regarding Occupational Health and Safety (OHS) at NBANH**.** This tool is based on the OHS criteria set out by the Canadian Standards Council and Work Safe New Brunswick.

The assessment tool included two levels of investigation, a questionnaire and key informant interviews. The questionnaire was executed to obtain scores on OHS best practices, and the interview was conducted to confirm the validity of the data, fill in any information gaps, and to learn more about any best practices which can be modeled.

Participants

The participants ('key informants') were selected by NBANH's Benefits Committee, and have taken part in, or currently participate in, the Joint Health and Safety Committee (JHSC) at their respective nursing homes. There was participant representation from each region.

Region	Nursing Home	Name of first Respondent	Title of first Respondent	Name of Second Respondent	Title of Second Respondent
2	Rocmaura Inc.	Louise O'Connor	Program Coordinator	Bonnie Hourihan	Clerical Support Worker
1	Drew Nursing Home	Jennifer wood	food service worker	Daryl Trites	environmental services manager
7	Mount St. Joseph	Ian Flieger	Director of Plant/Maintenance	Scott Murphy	Rehab Assistant
3	Mill Cove Nursing Home Inc.	Jason Dickson	Administrator - Co-chair JHS	Kelly Chambers	Co-Chair JHS
2	Dr. V.A. Snow Centre Inc.	Dianne Cassidy	support service manager	Nancy prentice	IPN
6	Les Résidences Mgr. Chiasson Inc.	Nathalie Ferron	Directrice des soins	Denise Mallet	Directrice des activités
5	Dalhousie Nursing Home Inc. / Foyer de soins de Dalhousie Inc.	Cecile Valdron	Director of Finance & Support Services		
4	Villa des Jardins Inc.	Sylvie Michaud	Co-présidente		
3	Central NB Nursing Home Inc.	Marlene Underhill	LPN		
1	Villa du Repos Inc.	Charline Cormier	Directrice des services opérationnels		

OHS Best Practices Survey

The 30-minute questionnaire was provided to participants in web-format, in both English and French (See Appendix B). The objective of the questionnaire was to score NBNHA again a series of well established best practices in OHS. The questionnaire assessed various facets of the 7 aforementioned best practice areas. Respondents were asked a small number of yes/no questions, though largely they provided their feedback using a 5-point agreement scale from strongly agree to strongly disagree. Respondents were also able to provide qualitative information / commentary. All questions were optional. Participant demographic data was also collected to ensure representation from each region. In some instances, respondents participated (responded) to the questionnaire together with another colleague, most often a co-chair of the Joint Workplace Health and Safety Committee.

OHS Key Informant Interviews

A 1-hr interview was conducted with the 10 key informants, with the objective to validate the data collected, fill in any gaps in the information provided, and obtain additional qualitative information about specific actions to move toward best practice. Each interview was customized based on the results of the questionnaire. Interviews were conducted in English and French by SFGI Health Consultants.

Overall Scoring/Assessment

The following 7 Best Practice Areas were assessed in the survey and the interviews:

- **Leadership, Commitment and Participation for Occupational Health and Safety** -- The degree of commitment, leadership and effective employee participation in OHS
- **Health and Safety Policy --** a statement of the intention and commitment by the employer toward the health and safety of all employees at the workplace**.**
- **Health and Safety Plan** -- describes the health and safety work to be done and measures progress made in the workplace on a yearly basis.
- **Procedures and Practices** -- written step by step instructions to be followed in a certain order for particular tasks and situations.
- **Competency, Education and Training** -- assesses if workers are competent to carry out their jobs safely, and if adequate OHS education and training are provided.
- **Documentation and Data Management** -- the ability to collect and use OHS information effectively.
- **Monitoring and Evaluation** -- the actions undertaken to measure and document the effectiveness of the OHS program.

Each area is assessed with one or more indicators for a total of sixty-eight (68) indicators that are relevant to OHS[3].

The evaluation offers comments and a colour coded "quick view" with:

- **Green** = on track or significant process toward being on track
- **Yellow** = opportunity area or very early progress that still requires development
- **Red** = significant gap

Note: the scores provided herein were based on the assessment of the Project Consultant, who led this review, using both the survey and interview data collected from participants. Scores are not provided based on the OHS initiatives for each participating home, but rather, are provided as an indication on how all participating homes are doing on average. Such a review could be conducted on all homes, and thereby scores could be provided at the 'home' level.

[3] The 63 OHSMs indicators are a subset of over one hundred indicators that are used by Morneau Sobeco Shepell·fgi in comprehensively assessing Workplace Health Systems.

Results Overall

The results herein provide an assessment of how the nursing homes – on the whole – are tracking toward best practice. Progress is denoted by colour per the aforementioned description, and comments are provided to further explain the assessment as well as note internal best practices. The results of this assessment was based on both qualitative and quantitative data garnered through the project survey and interviews.

This report first provides a global view of the success of NBANH's OHS Program, showing the summary assessment across the 7 Best Practice Areas for OHSMS. Subsequently, an in-depth assessment is provided by way of assessing the specific best practice indicators for each of the 7 practices areas:

- 1: Leadership, Commitment and Participation – 7 best practice indicators
- 2: Health and Safety Policy – 11 best practice indicators
- 3: Health and Safety Plan – 8 best practice indicators
- 4: Procedures and Practices – 14 best practice indicators
- 5: Competency, Education and Training – 7 best practice indicators
- 6: Documentation and Data Management – 8 best practice indicators
- 7: Monitoring and Evaluation – 8 best practice indicators

A total of sixty-eight (68) indicators that are relevant to OHS[4], were assessed.

The combined data from the OHS best practices survey and interviews was analyzed and the following overall area scores were assigned:

Best Practice Area	Overall Assessment[5]
OHS Leadership Commitment and Participation	
OHS Policy	
OHS Plan	
OHS Procedures and Practices	
OHS Competency, Education and Training	
OHS Documentation and Data Management	
OHS Monitoring and Evaluation	

[4] The 68 OHS indicators are a subset of over one hundred indicators that are used by Morneau Sobeco - Shepell·fgi in comprehensively assessing Workplace Health Systems.

[5] Green = on track or significant process toward being on track. Yellow = opportunity area or very early progress that still requires development. Red = significant gap

This review has revealed that there several key gaps that should be addressed. These gaps can be used set targets and drive action planning to ultimately attain a 'gold standard' occupational health and safety management system that is predicated on an effective planning and solid data, has a focus on prevention, and brings about continuous improvement

Health and Safety Leadership, Commitment and Participation

- No major gaps

Health and Safety Policy

- The OHS policy does not clearly outline a clear commitment to continual improvement
- The OHS policy does not clearly outline a framework for setting and reviewing objectives and indicators
- The OHS policy is not annually reviewed and updated

Health and Safety Planning

- An adequate plan is not created each year to facilitate the achievement of OHS goals and objectives

Health and Safety Procedures and Practices

- The consistency of practices associated with the procedures is not ensured or measured
- The effectiveness of any corrective action taken is not evaluated

OHS Competency, Education and Training

- Competence requirements for all of our jobs are not established or regularly reviewed
- There is not a system in place to ensure that workers are competent to carry out all aspects of their duties
- Employees are not updated or regularly trained on OHS policy, procedures and activities

OHS Data Management

- There is a not an adequate system in place for the development, tracking and control of all of the documents and records
- Confidentiality of OHS records is maintained, however, how data is stored does not easily allow to access to pertinent data without pulling case files
- OHS data is not entered in a database, nor is it used to create integrated (aggregate) reporting

OHS Monitoring and Evaluation

- There are not adequate procedures in place or consistently implemented for the monitoring and measurement of the OHS program
- There are not adequate resources in place (financial, human) for the implementation of the OHS program evaluation
- There is not internal OHS audit process in place at any of the participating homes
- There is no internal OHS audits criteria for auditor competency
- Internal OHS audits are conducted, nor are there presently plans to do so
- Since audits are not happening, the results of internal OHS audits cannot be reported to our leadership and other stakeholders

Results by Best Practice Area

Section 1: Health and Safety Leadership, Commitment and Participation

This section measured the degree of commitment, leadership and effective employee participation in OHS, which are essential to its success. There are a total of 11 best practice indicators assessed in this section.

Overall result

Participants reported strong Senior Leadership commitment to OHS, though greater middle management engagement in the OHS program was noted as an area for improvement. Participants reported variance in the role of the OHS Committee in addition to its effectiveness, though by and large, OHS Committees (ie: JHSCs) are well established and well functioning. Appropriate financial, human, and organizational resources for OHS, as well as active employee participation were consistently noted as the biggest barriers in succeeding in this area.

Best Practice	Assessment	Comments
There are appropriate financial, human, and organizational resources for OHS.		• Appropriate financial, human, and organizational resources for OHS are biggest barriers in succeeding in this area • A person who *consistently* devotes part of each week to OHS is required • Participants reported that resourcing for OHS is largely limited due to time pressures created by provincial performance efficiency efforts
Leadership reviews the OHS program at regular intervals (e.g. at least annually)		• The leadership is involved in reviewing the program annually, and in some cases more frequently, as well as providing recommendations • Leaders have good representation on JHSCs • In some instances, reports are submitted to the Board of Trustees/Governors at least annually

Best Practice	Assessment	Comments
Leadership encourages active participation on the part of workers and worker representatives in OHS.		• There is 'equal membership' (of managers and employees) on all JHSCs • Unions are actively engaged in JHSCs • There appears to a need for more engagement from managers (i.e. below the Director level) • In some instances, workers were surveyed regarding their OHS needs and interests, though this was not consistently done nor regularly conducted • In some instances, workers are involved in monthly inspections, however, by and large, workers (outside JHSC worker reps) have in inadequate participation in OHS tasks • Where there is worker participation in OHS is not always formally planned or tracked in most instances • Leaders need to talk more about the OHS Program including goals and targets • Sr. Leaders (EMT) need to 'walk the floor' more to facilitate better engagement with employees on OHS issues and have 'visible participation'
There are senior leaders designated to have clear roles, responsibilities and authority for OHS.		• It appears that many leaders are play an active role with OHS, but that there is not a particular leader(s) that bears the responsibility and authority over OHS, or, if so, it is not well communicated • DONs seem to have the greatest role by nature, though their designated authority is not clear
Accountability structures for OHS are in place in this organization (e.g. performance assessment, etc)		• By and large it seems that the JHSC has accountability over the OHS performance, however, accountability structures are not always formally in place or formally defined • In a couple of instances accountability over OHS was put in place by way of having OHS make up part of each job description, including employees and managers; however, this was rare
OHS information/data is regularly reviewed by leaders (e.g. audits, incidence rates, etc.)		• Leaders make up part (typically half) of the JHSC and therefore take part in the regular review of OHS data in the monthly JHSC meetings. • OHS data review by leaders does not appear to be standardized (i.e. there is not always a clearly outline procedure). • It is not clear how or when *Senior* Leaders (ED, EMT) review OHS data
Leaders seek expert consultation regarding the design and implementation of the OHS programs.		• WSNB has reportedly been engaged in designing and implementing the OHS Program at some point (prompted by high WSNB costs), however, regular counsel from WSNB or external experts is not regularly sought

Best Practice	Assessment	Comments
Leaders participate in education regarding issues, policies, practices and events that may impact OHS.		• Study participants report that leaders in their organization have good involvement with education initiatives • Greater involvement with OHS change management initiatives is an area for improvement
OHS committees have been established where required by OHS legislations.		• JHSCs are lead by seasoned Co-Chairs • JHSCs have equal membership • JHSCs meet monthly • In some instances JHSCs have an agenda for each meeting which is circulated in advance • JHSC posts meeting minutes in centralized location further to each monthly meeting • In a couple of homes, the JHSC conducts an annual self-evaluation of effectiveness, and in 1 home the JHSC requests an evaluation of its Committee by WSNB
OHS committee members are well trained in all aspects of OHS associated with their work.		• In many instances, participants reported that JHSC members engage in Back In Form training • In most instances, participants reported that JHSC members participate in the JHSC training program offered through WSNB • In most instances at least 1 member of the JHSC has attended the annual WSNB conference
OHS committee members are provided with the time and resources needed to participate effectively in OHS.		• JHSC members appear to make efforts to effectively use their time, however, the focus is largely on investigations, with limited time available for program review and prevention • In some instances JHSC Co-Chairs and members have opportunities to network with other nursing homes in their region or in the Association to share best practices and knowledge • More time for OHS meetings to effectively deal with issues while also regularly evaluating the performance of the OHS program and its goal achievement

Key Opportunities

1. **Develop a strategy for employee engagement in OHS**
   - ✓ Ensure Sr. Leaders are regularly "on the floor" talking about the OHS program
   - ✓ Engage in discussion regarding how to ensure OHS initiatives are conducted on working hours, and the provisions required to do so
   - ✓ Implement a review of employee participation levels in the OHS Program, including the barriers to participation as well as reviewing resources (budget and time) in order for employees to participate
   - ✓ Design a mechanism to support worker participation in the OHS Program

2. Focus on strengthening the governance of the OHS

- ✓ Develop a process whereby the Sr. Leadership Team is more regularly reviewing OHS data.
- ✓ Ensure one or more representatives of management who, irrespective of other responsibilities, is assigned defined roles, responsibilities, and authority for ensuring that the OHS program is maintained and reviewed
- ✓ Ensure there is equal representation from workers and management on the JHSC
- ✓ Ensure all JHSC meetings have an agenda to review the best practice areas of OHS in each meeting

3. Support managers and supervisors to effectively champion the OHS Program

- ✓ Develop a new management training program in addition to a system for tracking participation.
- ✓ Ensure Managers are well oriented to the OHS Program and Plan, and have a clearly described role in championing the OHS Program

4. Devise a plan to increase support for JHSC

- ✓ Ensure JHSC members are provided Back in Form training on an annual basis
- ✓ Ensure JHSC members are provided opportunities to network with colleagues in the region around OHS
- ✓ Ensure at least 1 member of the JHSC attends the annual WSNB conference
- ✓ Regularly assess and ensure that committee members are provided with the support, time and resources needed to participate effectively in the planning, implementation and evaluation of the OHS Program
- ✓ Consider centrally tracking and reporting committee member training achievement

Section 2: Health and Safety Policy

This section measured key aspects of the health and safety policy, including the organization's statement of its intention and commitment by the employer toward the health and safety of all employees at the workplace. There were 11 indicators of best practices assessed in this area.

Overall result

Participants confirmed considerable progress in this area. It was confirmed that there is an OHS policy in most of the homes, and that it is easily accessible. Participants reported both formal and informal channels for employees to provide feedback on the policy. It appears, however, that policy requires a more comprehensive scope and updating. Participants reported the need for their policy to be reviewed and updated to better encompass all facets of best practice, including formally articulating standards for *all* areas. The OHS Policy, was, by and large, not reviewed annually, though often, but not always, reviewed with changes legislation. Participants also suggested the need for the policy to be better and more frequently communicated, such as when there are changes, in addition to what is communicated in new-hire orientation.

Best Practice	Assessment	Comments
This organization currently has an OHS policy in place		• 9 of 10 respondents indicated that they had an OHS Policy in place; 1 respondent was unsure • Not all best practices areas were adequately documented in the OHS policy
OHS policy was developed in consultation with the key stakeholders (committee, union, employees)		• Most respondents reporting seeking the assistance from WSNB is their policy development • There is an opportunity for employees to be more engaged in policy development and review
OHS policy is appropriate to the nature, scale and hazards/risks associated with our organization.		• Participants reported their policies were relevant and appropriate given the nature of the work and scale of hazards
OHS policy clearly outlines the philosophy and scope of the OHS program		• Again, all best practices areas need to be better documented in the OHS policy, with the goal to have a OHS Policy which better aligns with an Occupational Health and Safety Management Systems approach

Best Practice	Assessment	Comments
OHS policy clearly outlines a clear commitment to comply with applicable legal and other requirements		• Participants confirmed this was clearly articulated
OHS policy clearly outlines a clear commitment to protect workers		• Participants remarked uncertainly in this area and often could not confirm this
OHS policy clearly outlines a clear commitment to continual improvement		• This was an area where there was a notable discrepancy. Participants reported that their policy clearly outlines a clear commitment to continual improvement in the survey, however, it could not be ascertained (in the interviews) how the policy did this • Participants references the Quality Standards program is their continual improvement effort, however, this is not an OHS-specific continuous improvement initiative
OHS policy clearly outlines a framework for setting and reviewing objectives and indicators		• In most instances, participants reported that objectives and indicators were set and reviewed, however, that the policy did not outline the framework for doing so • Two respondents were able to describe a comprehensive framework and process for setting and reviewing objectives and indicators
OHS policy is available in a written form that is easily accessible to all employees.		• Visibility of the policy varied from home to home, with some having a highly visible policy (ie: frequently posted), and others having a policy which largely resided in a department manual • Many participants remarked that by way of the study survey, they realized their policy was not adequately posted
OHS policy is well communicated throughout our organization.		• The policy is well communicated in new-hire orientation • Most participants reported the need for the policy to be better and more frequently communicated beyond what is communicated in new-hire orientation • Many participants reported that policy changes were posted, however, changes should be communicated as part of a formal change management procedure
OHS policy is annually reviewed and updated.		• All participants noted that their policy is not reviewed annually, and what is more, most could not easily find out the last time it was reviewed

Key Opportunities

1. **Conduct a comprehensive policy review**
   - ✓ Conduct an audit the OHS policy to ensure it is up-to-date and compliant with new legislation
   - ✓ Conduct a gap analysis to ensure OHS policy covers all best practice components
   - ✓ Ensure an annual policy review is incorporated in the annual program evaluation

2. **Develop a strategy to effectively communicate the OHS Policy**
   - ✓ Review employee communications mechanisms to ensure the OHS policy is well communicated
   - ✓ Ensure there are adequate channels for employees to provide feedback
   - ✓ Include a formal re-launch of the OHS policy in as part of the overall communications and education strategy for the OHS Program

Section 3: Health and Safety Planning

This sectioned measured the organization's health and safety plan, including the work to be done and measures of progress made in the workplace on a yearly basis. There were8 indicators of best practices assessed in this area.

Overall result

Participants reported effective planning around identifying and managing hazards and risks, though a formally-documented procedure to do so was not always in place. Most participating homes reported having a formal annual OHS Plan, though this was not consistently reported. By contrast, some respondents reported a 'rolling' list of goals, though not annually-set. Participants suggested the need for goals and objectives to be properly set or measured (i.e. 'SMART' goals), as well as regularly reviewed. Although participants reported striving for continuous improvement, a plan to support continuous improvement was not in place; it happened for the most part organically and through 'Quality Standards' initiatives, and not by way of a formal process. Appropriate financial, human and organizational resources to both develop the plan and regularly review it, in addition to the lack of a framework to do so, were consistently noted as the biggest barriers to succeeding in this area.

Best Practice	Assessment	Comments
The OHS program is regularly reviewed to assess conformance with appropriate legal and other requirements.		• Participants reported reviewing conformance with appropriate legal and other requirements, however, in most instances this did not occur on a regular basis
There is a process in place to identify and assess our workplace's hazards and risks on an ongoing basis.		• Participants reported a clear process had been established to indentify hazards or risks, although it was sometimes noted that the process could be improved. This underscores the need for a review process
Preventative and protective measures are developed based on identified hazards and risks.		• Participants reported that preventative and protective measures are put in place based by way of corrective action, but that there is an opportunity to more effectively do so in a proactive way

Best Practice	Assessment	Comments
There are OHS goals and objectives annually set and documented.		• This was an area where there was a notable discrepancy. Participants reported OHS goals and objectives were annually set and documented in the survey; whereas in the interviews, it was clear that in many instances that this was not done on an annual basis nor in a systematic way • Two homes reported using a comprehensive framework to document and track their goals • Only a couple of homes were effective in this area
OHS goals and objectives are measureable.		• This was also an area where there was a considerable discrepancy. • Participants reported OHS having measureable goals and objectives in the survey, however, in the interviews it was clear that, by and large, measurable goals did not consistently exist (although it is noted that they did for a couple of homes) • Some participants cited having clear, measureable goals, yet they lacked goal achievement indicators/measures • A couple of homes reported a concerted effort to ensure alignment between the annual business strategic plan and the annual OHS Plan
OHS goals and objectives are regularly reviewed and updated, based on changing information.		• Participants responded that the JHSC effectively 'changed gears' based on changing information or needs around OHS. It was clear, however, that this was done more organically and less systematically, as their goals were not reviewed and updated accordingly • Many participants remarked that due to time constraints, it is not realistic that objectives are reviewed and updated in monthly meetings • Greater understanding as how this can be done is required
A plan is created each year for how we intend to achieve our OHS goals and objectives		• There was notable discrepancy between survey and interview data for this indicator as well. Participants reported having a plan to achieve goals and objectives in their survey responses, but by and large, they were not able to report clearly defined tactics/strategies, nor accountabilities, in the interviews. Accordingly, a best practice plan was, for the most part, not in place • Only 1 home reported having a formal OHS planning day, where goals and objectives, timelines, and accountabilities were set (among other key activities) • Greater understanding as how this can be done is required
Responsibilities and timelines are clearly outlined in our implementation plan.		• There was notable discrepancy between survey and interview data for this indicator. Time references, nor accountability, were clearly defined for most homes

Key Opportunities

1. **Conduct a comprehensive review of OHS planning needs**
   - ✓ Audit existing annual plan to identify gaps in best practice and compliance
   - ✓ Assess need and resources required to develop additional planning components where necessary to work toward achieving best practice level
   - ✓ Secure resources to conduct an annual OHS planning day/initiative

2. **Create and document an annual OHS plan**
   - ✓ Ensure there is greater support for the JHSCs to assist them to better align their plan with best practice
   - ✓ Develop a process to document and review specific, measureable OHS objectives and targets
   - ✓ Ensure there is a formal evaluation plan and continuous improvement process
   - ✓ Ensure that the OHS Program is aligned with other related areas or programs in the organization
   - ✓ Identify tasks and responsibilities to implement an effective, best practice OHS Plan

Section 4: Health and Safety Procedures and Practices

This sectioned measured the organization's health and safety procedures and practices, including how that are established, communicated and applied with respect to particular tasks and situations. There were 14 best practices indicators assessed in this area.

Overall result

Participants reported their homes have effective procedures in place, especially around reporting and investigating work related injuries, illnesses and incidents. However, participants underscored a considerable gap between policy and practice. Similarly, there are effective procedures for corrective action, yet follow-up and evaluation is also a major gap. Change management procedures are also an area of concern, and should be in place to mitigate risk. Mechanisms, communication and training to ensure procedures are consistently executed in practice, and also evaluated for effectiveness, are lacking. By contrast, emergency preparedness procedures and drills are working well, although additional training and communications could better support these initiatives as well.

Best Practice	Assessment	Comments
There are formal, documented OHS procedures in place to address identified hazards and risks.		• All participants reported that there are formal, documented OHS procedures in place to identify and address OHS hazards and risks • Most participants reported have 'Concerns Forms' and/or 'Problem Identification Forms' in their homes and easily accessible as a way to formally address hazards and risks • Many participants reported reading Back in Form reports in JHS meetings
The OHS procedures are regularly reviewed and updated		• Participants reported that procedures are updated, though there was not a clear standard for doing so • The frequency for which procedures are updated was not clear
The consistency of practices associated with the procedures is ensured and measured		• It was consistently noted that this is where the greatest gap exists • Participants concurred that there were no *formal mechanisms* in place to ensure employees carry out their duties according to procedure • In a few instances employee competency was formally evaluated every 2 years (outside performance appraisals), but there were no other formal initiatives to ensure consistency of practice
Procedures are established and consistently applied for reporting and investigating work related injuries, illnesses and incidents.		• Procedures for reporting and investigating injuries, illness and accidents exists, although participants could not describe how it is ascertained that they are being consistently applied

Best Practice	Assessment	Comments
The roles and responsibilities in these processes is clearly understood (e.g. for employees and managers)		• Participants reported that roles and responsibilities on the part of employees and managers were understood, although it could not be confirmed how this is ascertained
The identification of the 'root' cause(s) of incidents is clearly directed in our procedures.		• Participants reported significant efforts to indentify root cause(s) of incidents. • In some cases, root causes were identified for not only for claims, but all incidents and concerns.
The effectiveness of any corrective action taken is evaluated.		• There was notable discrepancy between survey and interview data for this indicator. Participants concurred that corrective action is followed through effectively; however, it was clear that both follow-up and evaluation to determine effectiveness did not take place. • Participants signaled this as a major gap.
There are procedures in place to prevent, prepare for and respond to emergencies		• Participants indicated that there are clear procedures to respond to emergencies • Communication around these procedures should be enhanced
There is periodic testing of the emergency procedures and plans (e.g. drills)		• In most homes periodic testing is done for emergency procedures and plans (most notably fire safety measures) though the frequency varies
Emergency procedures are periodically reviewed and updated		• Updates are made as required, for example, due to changes in legislation, as opposed to regularly revised for greater compliance or prevention
Emergency plans and procedures are well communicated and training is provided to workers		• By and large, training and communication for emergency plans and procedures is conducted only in the new-hire orientation

Best Practice	Assessment	Comments
There procedures in place to identify, assess, and eliminate or control OHS risk when there are new processes or operations introduced		• In most homes participants report they lack *formal* procedures in place to identify, assess, and eliminate or control risk when there are new processes or operations introduced, such as when new equipment or materials are introduced
Procedural changes are supported by information sessions and training, where appropriate.		• All respondents reported offering "training sessions" conducted by the Sales Representatives of newly procured products, but that this training is high level and does not always involve modeling or experiential learning • By and large, training for procedural changes is not always mandatory, and it is not offered for every shift • Training for procedural changes needs to be more formally conducted, with competent trainers. • Training should also be reinforced through on-the-job refreshers following the initial training session. This could be done using a train-the-trainer approach
There are procedures in place for the evaluation of purchased products, supplies, machinery, equipment, etc		• Evaluation of purchased products, supplies, machinery, equipment appears to be conducted in silos (e.g. in the procuring department, or by the Facilities Department), yet not often, or not consistently, by a broader procurement evaluation team or the JHSC

Key Opportunities

1. **Create an updated strategy for risk identification and prevention**
   - ✓ Review and document a formal hazards and risks identification and resolution process that aligns with best practice and ensures hazards and risks are more systematically and consistently identified on an ongoing basis
   - ✓ Conduct a gap analysis of existing procedures and update them where necessary
   - ✓ Assess needs to close gaps between policy practice
   - ✓ Focus on ensuring and measuring the consistency of practices associated with procedures.
   - ✓ Create a communications and education plan to ensure employees are more aware of OHS procedures

2. **Design an OHS change management procedure**
   - ✓ Ensure there is a procedure in place to risks mitigate and manage risks for any changes to the organizational structure, equipment, supplies, and machinery, including provisions for communication, training and education for all employees and leaders in the organization
   - ✓ Ensure there is a procedure for changes to the OHS Policy

3. **Review and update procedures for investigation and reporting**
   - ✓ Review efficacy of existing investigation and reporting procedures
   - ✓ Create a mechanism to more formally evaluate the effectiveness of corrective action

Section 5: Health and Safety Competency, Education and Training

This sectioned measured the organization's workers' competency to carry out their jobs safely, and if adequate OHS education and training are provided. There were 7 indicators of best practices assessed in this area.

Overall result

Homes are doing well at orienting employees at hire, but on-going training and education is a major gap. Participants remarked a real need for systems to establish, review and evaluate workers' ability to conduct their duties in a safe and effective manner, and insomuch, job competency assessment is also major gap. By contrast, although there is not exceptional two-way communication, homes are doing well at providing employees with a way to voice their concerns and suggestions about OHS without fear of reprisal. In sum, this is an area where key targets for improvement should be made, and presents an opportunity for a considerable difference in OHS performance if achieved.

Best Practice	Assessment	Comments
Competence requirements for all of our jobs are established and regularly reviewed		• Several participants reported recent key actions to make OHS competency an important and detailed part of all job descriptions, however, by and large this was not case • Participants signaled this as a gap
There is a system in place to ensure that workers are competent to carry out all aspects of their duties.		• This was also an area where there was a discrepancy between survey and interview data. Some participants reported that a system is in place in their survey response; however, in the interviews most participants were candid in confirming there is not a system in place to ensure workers are competent to carry out all aspects of their duties, aside from having a discussion about it through the performance appraisal process which does not always occur annually. Accordingly, this was signaled as a major gap • One participant reported having 'Job Competency Forms' which were reviewed with each employee as way to document and track job competency. These forms outline the required movements, equipment, etc, and also have an area to record any additional training the employee may need or request
All employees are oriented to OHS upon hiring (including managers)		• All participants report that employees (both managers and employees) receive both a general and department OHS orientation upon hire. The duration of these orientations varies from one to 5 days. • Participants did note that these training session do need to be refreshed beyond orientation, as there is "information overload" in the orientation sessions at hire • It appears there is an opportunity to orient managers specifically to the OHS Program and Plan, in addition to providing general and departmental OHS training

Best Practice	Assessment	Comments
Employees are updated and regularly trained on OHS policy, procedures and activities.		• Participants reported good intentions to provide employees with training on OHS policies and procedures; however, due to not having OHS-designated staff to conduct these training sessions, they often get cancelled (e.g. They don't have official OHS trainers or coordinators in all homes so if the unit where the person conducting the training session works is short-staffed, they are forced to cancel the session) • Some participants reported training being offered after monthly or quarterly organizational/departmental meetings, however, due to the fact that it is voluntary and unpaid, this initiative is not successful • In many cases employees are not provided with paid time to attend training when it is offered • Only one home was able to report consistently following through on planned inservices and training sessions • A couple of homes reported consistent use of '10-minute health and safety meetings', delivered to workers by JHSC members or managers before shifts • A couple of homes reported having monthly OHS newsletters as a channel to update employees
Managers are oriented and trained regularly about their specific roles and responsibilities in OHS.		• Managers are reportedly trained on their roles and responsibilities for OHS at some point, however, the frequency of this training is not clearly defined, nor are the objectives • In fact, many participants reported a notable level of manager disengagement (i.e. below the Director level) with the OHS Program • It seems as though this is a major gap, and that there is an opportunity to better orient managers to the OHS plan and priorities, as well as their role in supporting it
Employees and managers are well supported to meet their roles and responsibilities of OHS.		• Participants concurred that that the JHSC strives to support employees and managers to meet their roles and responsibilities at all times, however, they were not able to explain any concrete examples of how this support is provided • This appears to be a major gap
There is a mechanism in place for workers to provide input or voice concerns about OHS		• Suggestion boxes are frequently and effectively used • Most participants reported have 'Concerns Forms' and/or 'Problem Identification Forms' in their homes and easily accessible as a way to formally address hazards and risks • One participant reported using a 'Department Communications Book', which each employee is mandated to read prior to commencing their shift, as a channel to communicate information around hazards, risks and preventative efforts • A couple participants reported employing '10-minute health and safety meetings' (conducted by managers of JHSC members) as a way to hear and address employee concerns about hazards and risks • A few participants reported using a survey every few years to allow employees to voice concerns and needs around health and safety; however, this was not frequently conducted

Key Opportunities

1. **Develop a strategy to assess and review OHS job competencies.**
   - ✓ Ensure OHS competencies are documented in all job descriptions, including managers and employees
   - ✓ Create a process to ensure employees and mangers meet required OHS job competencies
   - ✓ Create a job competency assessment process for change management initiatives

2. **Review and more effectively plan OHS training initiatives**
   - ✓ Review and assess OHS training needs
   - ✓ Review OHS orientation content
   - ✓ Review and develop OHS orientation standards for employees and managers
   - ✓ Create an annual training and education plan which aligns with the goals of the OHS plan
   - ✓ Ensure training is provided during working hours
   - ✓ Ensure training is conducted by competent persons
   - ✓ Ensure the curriculum of the orientation is properly documented
   - ✓ Ensure regular training activities are planned and conducted, including retraining and refreshers, for the maintenance of the OHS policies and program
   - ✓ Ensure there is a process specifically for training transferred employees (i.e. workers who change jobs within the organization or who transfer from a sister organization), as well as a process specifically for training temporary employees

3. **Create a mechanism to capture and utilize education and training data**
   - ✓ Ensure participation rates are captured and recorded
   - ✓ Ensure training evaluation scores are captured and recorded
   - ✓ Ensure knowledge acquisition is assessed following all training sessions
   - ✓ Ensure training efficacy and participation rates are part of the OHS Program review
   - ✓ Ensure training data is integrated with OHS data overall to identify any trends or relationships between training initiatives and OHS performance

Section 6: Documentation and Data Management

This section measured the organization's health and safety data management and reporting, including its ability to collect and use OHS information effectively. There were a total of 8 best practices assessed in this area.

Overall result

This area offers an opportunity for a considerable difference in OHS performance if achieved. In addition to ensuring point-of-use OHS documents are made available, there is a need to put both procedures and systems in place to more effectively record and manage data. If recorded and managed properly, this information could be better used to set targets and drive action planning for OHS performance. As such, documentation and data management is a key initiative in developing a data-driven occupational health and safety management system.

Best Practice	Assessment	Comments
There is a system in place for the development, tracking and control of all of the documents and records		• This was also an area where there was a considerable discrepancy. Participants reported that a system is place for the development, tracking and control of all of the documents and records in the survey; however, in the interviews a system for records and document control could not be clearly defined • Effort could be applied to ensure documents are better controlled with reference numbering and versioning, and by having effective and expiry dates • It is clear that this is a major gap
Relevant OHS documents are made readily available at 'the point of use' (e.g. fact sheets, forms, etc)		• Participants reported good systems for having key documents readily available • The location of such documents is also communicated
OHS documents are regularly reviewed and updated		• By and large, participants reported infrequent revisions and updating of OHS documents, but showed interest in doing so more regularly, time permitting • One participant reported a 3-year review cycle, where by all OHS documents are updated every 3 years
OHS records are established and maintained to provide evidence of conformity		• Participants report keeping reports of incidents and accidents on record, in addition to their policy, plan and procedures
OHS records are readily retrievable and useable		• Participants largely reported records are filed and maintained, but that "someone could not walk in easily find and retrieve all records" • Effort could be made to have fully integrated and electronic records

Best Practice	Assessment	Comments
OHS records are securely stored and protected		• Participants reported secure storage of paper files • Greater information is required around the protection, backing up and archiving of electronic records
The confidentiality of OHS records is maintained, while ensuring access to pertinent data.		• Participants reported that confidentiality is of paramount importance in maintaining records, however, due to the fact incident report data is not typically entered into a database, persons wishing to pull data typically have to pull the incident report itself or a the case/claim file, as opposed to anonymous data
OHS data is entered in a database and is used to create aggregate reports		• This was also an area where there was a considerable discrepancy. Although participants reported that OHS data is entered in a database and is used to create aggregate reports in their survey responses, by way of the interview, it was clear that this best practice is not well understood. Proper databases with all incidents/near misses, with root cause analysis and corrective/preventative measures combined, have largely not been developed. Insomuch, there is little to no comprehensive aggregate reporting either • Most participants referred to data entry for Quality Standards as their databasing initiatives • Only one home reports using a combined database of all incidents/near misses, with root cause analysis and corrective/preventative measures. This home also integrates process measures, such as training participation records and training effectiveness scores into their database. This same home also employs electronic incident reporting technology to streamline reporting and more easily pull incidence data into its database

Key Opportunities

1. **Create a data management strategy**
   - ✓ Review/create a process and database to ensure key OHS metrics are entered an electronic OHS data base
   - ✓ Create a document review process
   - ✓ Review reporting forms to ensure relevant OHS data is captured
   - ✓ Review information needs and gaps required to effectively measure changes to OHS performance and goal achievement

2. **Review systems for OHS records management**
   - ✓ Review/create records management standards
   - ✓ Ensure OHS records are established and maintained to provide evidence of compliance
   - ✓ Ensure OHS process and participation records are maintained
   - ✓ Where possible, ensure electronic records are maintained
   - ✓ Ensure paper records are properly identified and filed, using an established filing convention
   - ✓ Ensure administrative control over documents is exercised

3. Review systems for document control

- ✓ Ensure there is adequate documentation to effectively implement the OHS program and plan
- ✓ Ensure a master list of documents is maintained by an appointed member of the JHS Committee
- ✓ Responsibility over controlling and issuing documentation is assigned
- ✓ There is a documented procedure to control documentation, including:
  a) ensuring there is an approval process
  b) ensuring that documents have a reference and version number
  c) ensuring that documents have a an effective date and an expiry date
  d) ensuring that documents remain legible and readily identifiable

4. Create a comprehensive OHS database

- ✓ Ensure you have a combined database of all incidents/near misses, with root cause analysis and corrective/preventative measures identified
- ✓ Ensure there is accountability over the database
- ✓ Ensure there procedures around maintaining the database

Section 7: Monitoring and Evaluation

This sectioned measured the organization's health and safety monitoring and evaluation actions, specifically, initiatives undertaken to measure and document the effectiveness of the OHS program. There were 8 key best practices assessed in this area.

Overall result

This was an area where there was the most considerable gap in both actual practices, and, the knowledge of best practices. The interviews revealed a notable discrepancy between what participants thought they were doing and what actual best practices were being implemented. This indicates that further support and expertise is required for this area to be better understood and ultimately have better results. Monitoring and evaluation not only creates a system to ensure program effectiveness, it also provides the information required to drive change. As such, it is a key initiative in developing a data-driven occupational health and safety management system which demonstrates continuous improvement.

Best Practice	Assessment	Comments
There are procedures in place and consistently implemented for the monitoring and measurement of the OHS program		• Participants reported that monitoring and evaluation efforts were largely driven by accreditation and licensing • No clear, formal procedures were in place, nor consistently implemented, to monitor and measure the OHS program • Several participants reported using anecdotal evidence to monitor their program, but a formal monitoring system did not exist • It appears best practice evaluation strategies require greater understanding, for the most part
There are adequate resources in place (financial, human) for the implementation of the OHS program evaluation		• Participants reported that resourcing (mostly time) would the biggest barrier for the implementation of the OHS program evaluation
Our organization has access to the necessary competencies to design and carry out OHS evaluation strategies and plans		• Participants reported they feel the JHSC would be supported to bring in the right expertise to design and carry out OHS evaluation strategies and plans
Workers and their representatives are involved in the evaluation of the OHS program		• Some participants reported that the JHSC conducts a an evaluation of the OHS Program although a formal evaluation plan did not exist • Several participants reported monitoring goals, as well as using anecdotal evidence to evaluate the Program • In some instances participants reported conducting a survey every few years, part of which included an assessment of employees' perceptions of the OHS Program

Best Practice	Assessment	Comments
There is an internal OHS audit process in place		• This was also an area where there was a considerable discrepancy. Although participants reported that an OHS auditing process occurred, by way of the interview, it was clear that this best practice is not well understood. • Although most of the participants report their home had solicited the counsel of WSNB at some point, *none* of the homes conducted a formal internal audit of OHS policy; OHS plan, including goals, objectives and targets; OHS procedures; OHS training, OHS results, including incidents and accidents as well as the participation of workers and the effectiveness of the JHS Committee
Internal OHS audits clearly outline the criteria for auditor competency		• There is no internal audit process
Internal OHS audits are conducted at regularly planned intervals		• There is no internal audit process
The results of internal OHS audits are reported to our leadership and other stakeholders		• There is no internal audit process

Key Opportunities

1. Conduct a review of all monitoring activities
   - ✓ Review/create and document monitoring procedures
   - ✓ Develop and document a formal auditing process and standards

2. Develop and evaluation strategy and plan
   - ✓ Assess needs to conduct a comprehensive OHS Program evaluation
   - ✓ Design a mechanism for employees to be involved in the evaluation of the OHS Program
   - ✓ Develop procedures for the monitoring and measurement of OHS performance (processes) and ensure they are clearly documented as part of the OHS Policy
   - ✓ Identify and enact procedures for the monitoring of the effectiveness of the OHS Program (outcomes)
   - ✓ Ensure OHS program results are clearly reported and used to make improvements in the program
   - ✓ Ensure there are adequate and appropriate resources in place (financial, human) for the monitoring and evaluation of the OHS Program, including consideration of adding specific program evaluation expertise to JHSC

Recommendations

This review has revealed that there is considerable opportunity for NBANH to put in place actions to ensure the efficacy of the OHS Program, and what is more, move toward a 'gold standard' OHSMS appraoch. Key actions include:

Health and Safety Leadership, Commitment and Participation

- ✓ Develop a strategy for employee engagement in OHS
- ✓ Focus on strengthening the governance of the OHS
- ✓ Support managers and supervisors to effectively champion the OHS Program
- ✓ Devise a plan to increase support for JHSC

Health and Safety Policy

- ✓ Conduct a comprehensive policy review
- ✓ Develop a strategy to more effectively communicate the OHS Policy

Health and Safety Planning

- ✓ Conduct a comprehensive review of OHS planning needs
- ✓ Create and document an annual OHS plan

Health and Safety Procedures and Practices

- ✓ Create an updated strategy for risk identification and prevention
- ✓ Review and update procedures for investigation and reporting
- ✓ Design an OHS change management procedure

OHS Competency, Education and Training

- ✓ Create a mechanism to capture and utilize education and training data
- ✓ Review and more effectively plan OHS training initiatives
- ✓ Develop a strategy to assess and review OHS job competencies.

OHS Data Management

- ✓ Review systems for OHS records management
- ✓ Review systems for OHS document control
- ✓ Create a data management strategy
- ✓ Create a comprehensive OHS database

OHS Monitoring and Evaluation

- ✓ Conduct a review of all monitoring activities
- ✓ Develop and evaluation strategy and plan

In addition to the particular best practice data that this review gleaned, there are some other key recommendations:

1. **Consider adopting Occupational Health and Safety Management System (OHSMS) approach**
   Occupational Health and Safety Management Systems (OHSMS) are now considered a 'best practice' in most businesses, as well as in the health and safety field. They reflect the principles of quality, due diligence and evidence based decision making. Implemented fully, they support the creation of

prevention programs that are systematically planned, implemented, evaluated and continuously improved. Based on the continual assessment of risks and organizational capabilities, OHSMS focus more on need and less on meeting legislated requirements. In this way, OHS becomes more of a strategic, proactive health management program for an organization. An effective OHSMS enables an organization to manage OHS issues as an integrated part of its overall business operations. This review marks a key effort to achieve 'best practice' in the delivery of Occupational Health and Safety services and programs, and is based on OHSMS criteria. It would therefore be recommended to consider formally adopting an OHSMS approach to health in safety in your sector. (refer to the Introduction for a model of and OHSMS)

2. **Conduct a claims management review**

   This review examines policies, practices and procedures in all the best practice areas of OHSMS, however, it does not provide an analysis of OHSMS claims management-- an equally important part of effective OHSMS performance. This would be a key recommendation in order to identify practices in the management of claims that can help promote preventative measures and more effective claims administration.

3. **Increase knowledge of best practice**

   There was considerable disparity between the survey scores and the information reported in the interviews. In many instances, scores were reported as high (i.e. a strong agreement to best practice standards) when interviews revealed less actual alignment with best practice. In several cases, high scores were given where there were in fact gaps in practice. It can be assumed that there is a respondent bias in self-reporting, however, this is also an indication there is a gap in knowledge around best practice standards in many cases. Increasing knowledge of best practices in OHS, and in particular, understanding of an OHSMS approach, is therefore a key recommendation.

4. **Promote networking and knowledge transfer**

   There were notably differences in the strength of the OHS Program from home to home, in addition to the approaches used. There is considerable opportunity for networking and knowledge transfer of best practices among homes in the sector.

5. **Focus on Back in Form**

   There appears to be a positive correlation between having an effective Back in Form program and good OHS performance. In addition, employee engagement in the OHS Program seems to be greater in homes reporting high functioning Back in Form programs. Further investigation should therefore take place as to the key practices that make the Back in Form program successful, as well as the potential impact additional funding for Back in Form training and train-the-trainer programs may have on OHS performance.

6. **Consider investing in the development of OHS support documents**

   In effort to provide to support for homes to move toward best practice, consideration should be given to investing in the development of template OHS documents so homes have a strong framework from which to work. This will also bring about consistency in documentation and reporting and would ultimately position the Association to be able to compare OHS data and reporting across homes.

7. **Consider creating a mechanism for data to be reported into the Association annually**

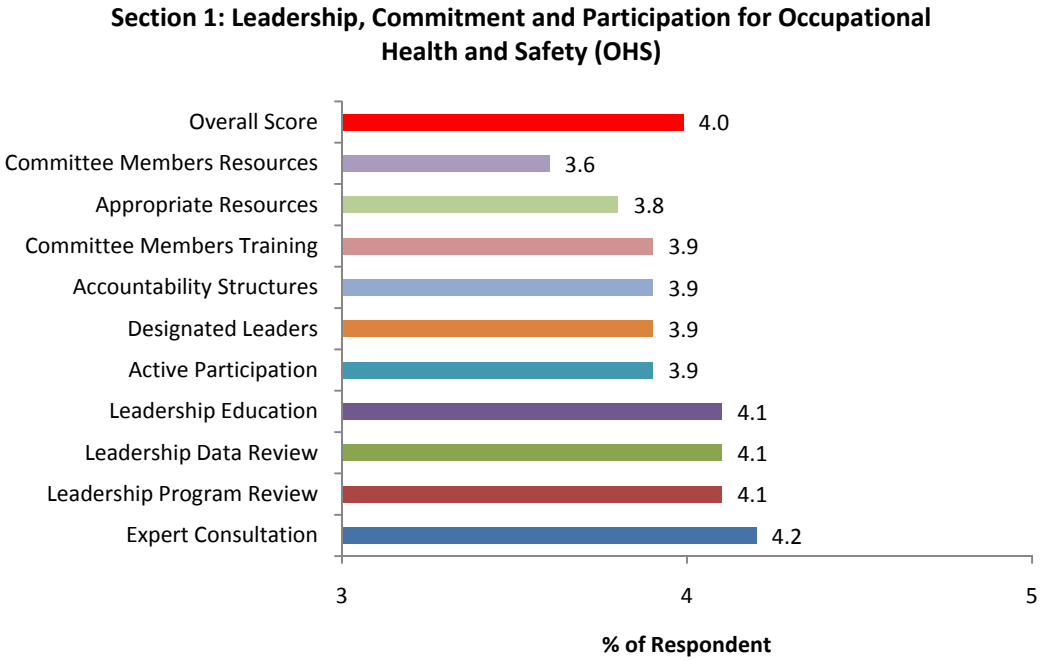
   Presently, the OHS Program in each home is led and managed independently, with little reporting and feedback to the Association. In order to facilitate greater governance and monitoring over the

sector's OHS Programs, and be positioned to better support the sector, the Association could consider requesting annual reporting from each home, and support this process by creating a system to do so.

8. Follow up with recommendations for study participants

This review will undoubtedly drive action planning over the subsequent months; however, in the interim, it would be recommended to provide participants of this study with a summary report given they have been engaged in the process and their interest has been captured. In fact, most participants specifically requested that a copy of the results be provided.

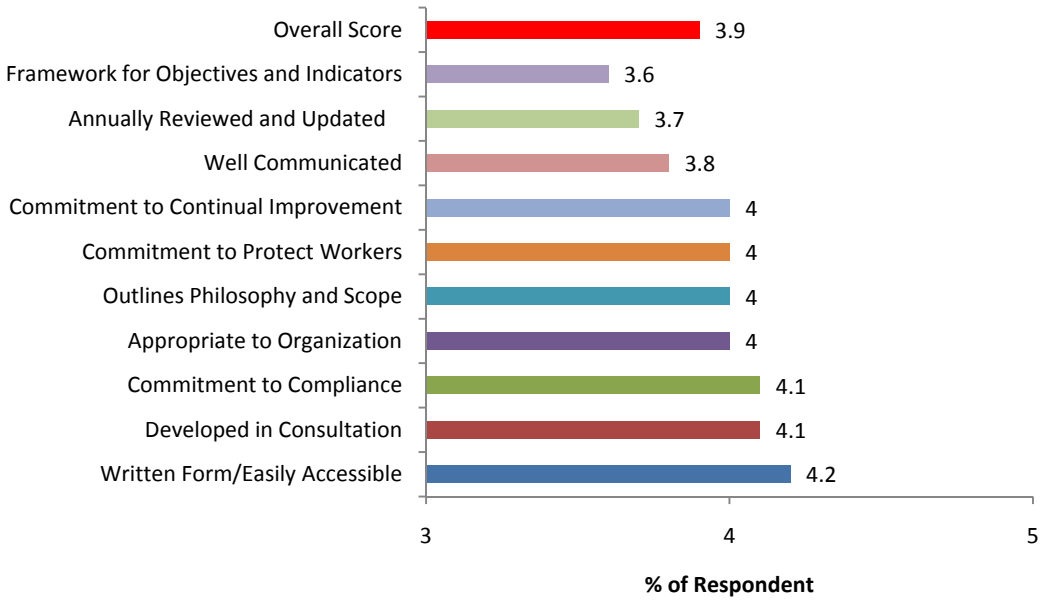
Appendix A – Occupational Health & Safety Best Practices Survey Results



Comments:

- Participation of our OHS activities are strongly encouraged/supported by our leadership team including our Board of Directors. Also we seek solutions to all challenges, especially from our Front Line workers.
- There needs to be constant communication and support from Management and staff for OHS efforts. Additional funding to support training and education is needed.
- La formation de 3 jours obligatoire selon la loi est bénéfique pour tous les gestionnaires qu'ils soient dans le comité ou non. L'HST est une responsabilité de l'Employeur et le déroulement de ce comité se doit d'être constructif et productif

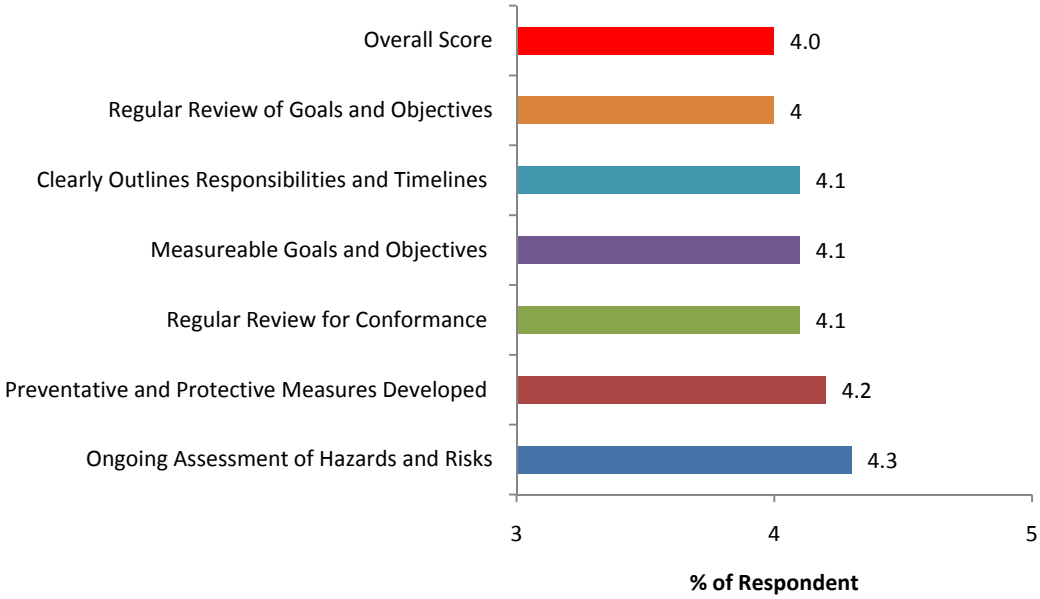
Section 2: Health and Safety Policy



Comments:

- The H&S policy of our facility implies ongoing continuous improvement but does not state it specifically. The framework for reviewing objectives and indicators is reviewed annually by the committee but not stated in the policy. As indicated via this survey we will need to review & revise our Policy.
- We feel that the commitment is there but the $$'s not always available, changing the end result.
- We are currently working on our OHS policy, with measures of accountability and working on continuous improvement.
- Nous affichons notre politique afin qu'elle soit disponible et accessible pour les employés.

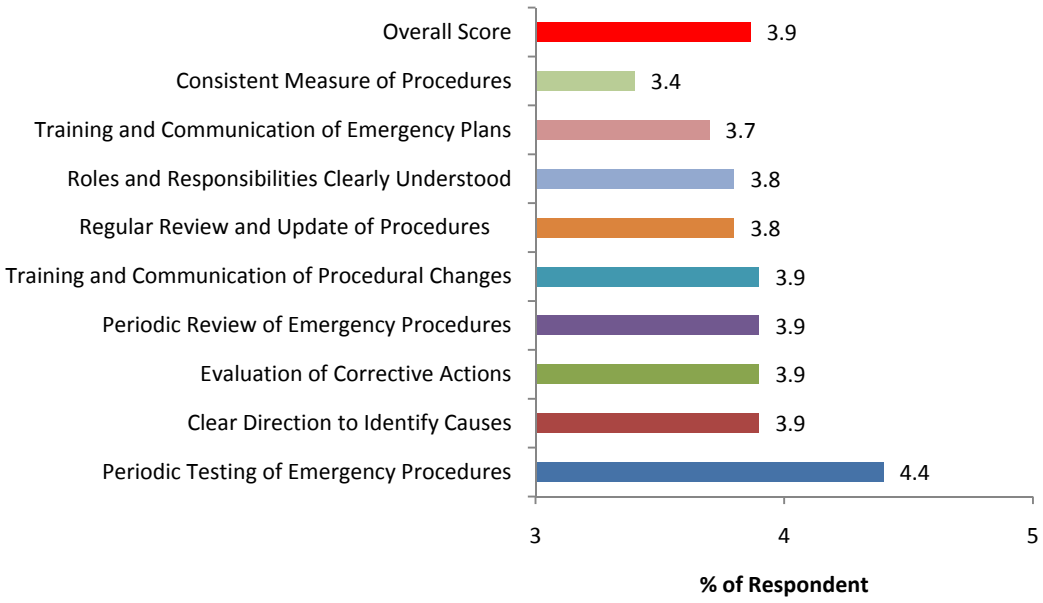
Section 3: Health and Safety Plan



Comments:

- Our plans annually & if target dates are not met we discuss the reasons why and regroup and readjust the goals & time frames."
- Timelines are a grey area due to the availability of resources.
- A review of the is needed on a yearly basis with new or updates goals and deadlines.
- Nous avons un plan clairement défini et le programme 5*22 nous aide à définir nos objectifs.

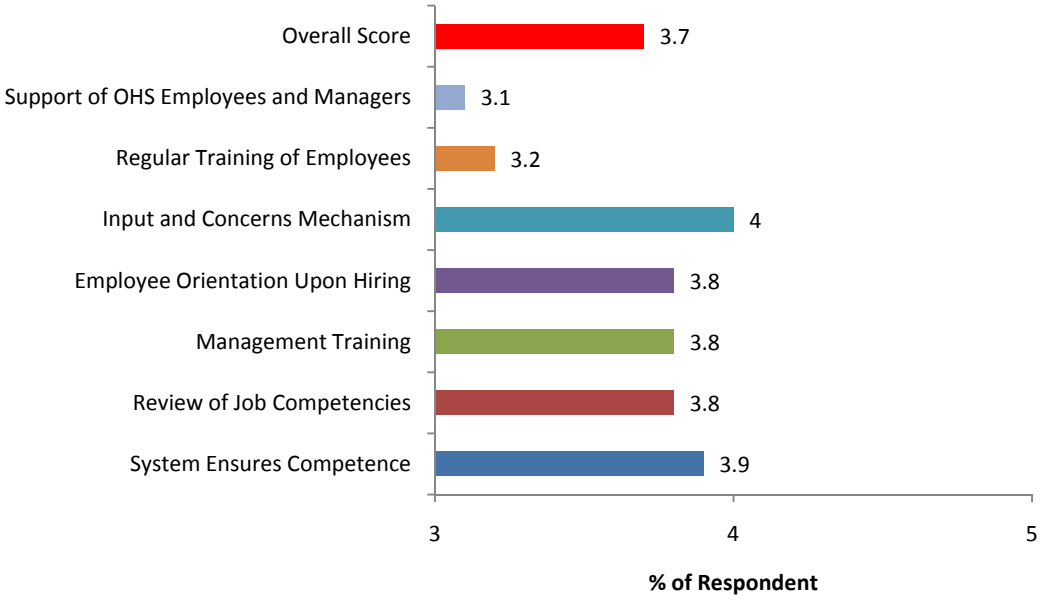
Section 4: Health and Safety Procedures and Practices



Comments:

- Regarding the regular review & update of procedures: We are aware of some that are done but are unsure of ALL procedures in ALL departments. We do not have a system or human resources to track these statistics.
- Most times people are reactive rather than proactive. not a good way to be in this atmosphere.
- Nous venons d'effectuer un deuxième sondage auprès des employés dans le cadre du programme 5*22 et cela nous permettra de mesurer notre progrès et identifier des nouveaux objectifs pour notre foyer concernant la santé et sécurité au travail.

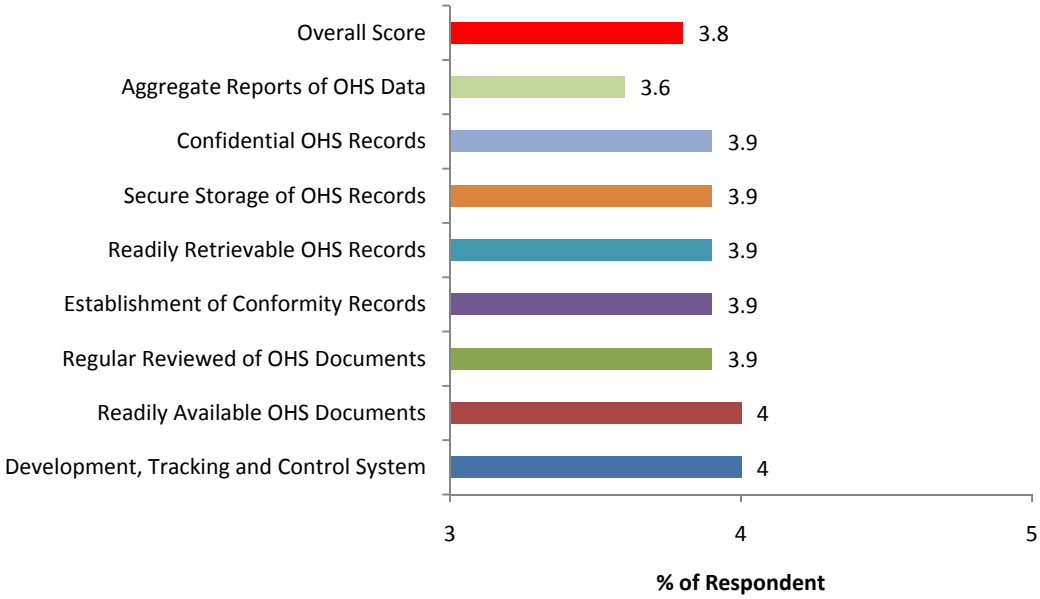
Section 5: Competency, Education and Training



Comments:

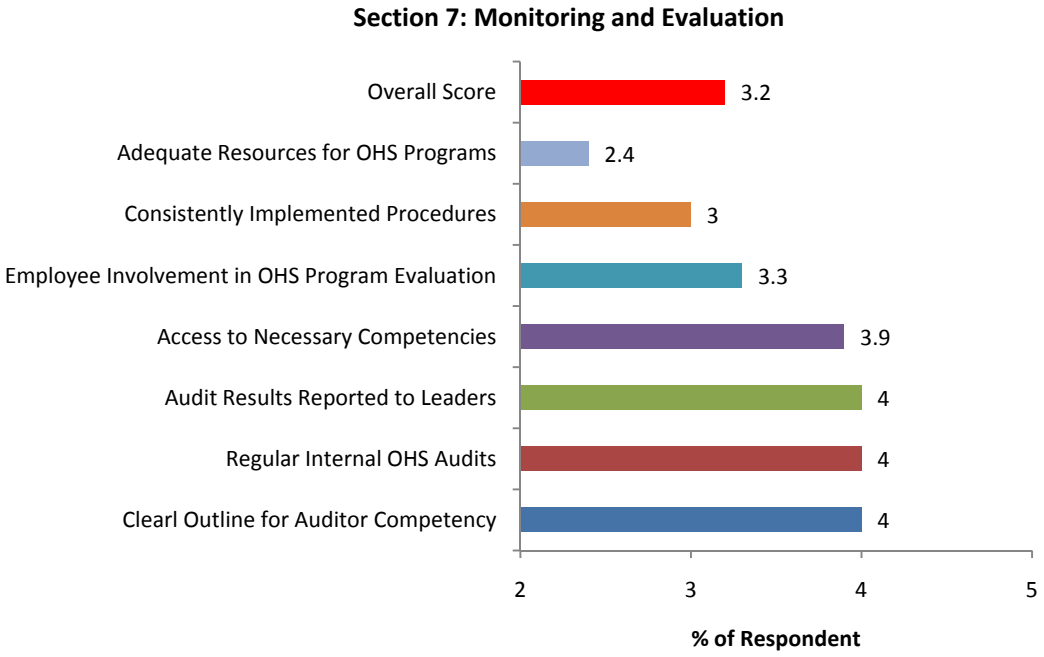
- A system to ensure workers are competent to carry out all aspects of their job: Evaluations are to be completed biannually but this is not always met whether because of the lack of human resources, time allottment, or standard of our staff's high performances levels.
- The leadership of the organization supports the employees and mangers in their OHS roles & responsibilites but due to government care hours, sick time resulting in lack of human resources and time these roles & responsibilites are not always met."
- "Need additional resources for education & training."
- "Il devrait y avoir une personne-ressource qui pourrait donner une session d`information aux employés qui ne veulent pas aller sur le comité de Santé-Sécurité."

Section 6: Documentation and Data Management



Comments:

- None provided



Comments:

- We are not sure of what the criteria for auditor competency means
- [We have] gone through a transitional period with management, provincial consultants, and WorkSafe NB staff leading to some gaps in evaluating and updating our OHS policies and procedures

Overall Comments:

- La santé et la sécurité au travail est un aspect qui est en constante évolution. Les possibilités d'amélioration sont infinies et ce dossier est très intéressant!

Appendix B – Occupational Health & Safety Best Practices Survey

Occupational Health and Safety Best Practices Questionnaire - NBANH

Introduction

As you have recently heard, NBANH has partnered with The Shepell•fgi Research and Health Consulting Group to implement a review of its Occupational Health and Safety (OHS) program, as part of a broader initiative that will bring a wellness program to its sector. Wellness embraces employees' social, physical, occupational and emotional health.

The following questionnaire is a practical method for assessing the basic health and safety practices in your organization. It is the first of a 2-part review process. This review is intended to provide an assessment of the quality of key workplace structures, processes and programs needed to support employee and workplace health and safety. This questionnaire should take no more than 30 minutes to complete, and will be followed up with a 1-hr interview.

You have been selected as one of 10 'key informants' due to your knowledge and experience with OHS, in addition to your experience with the Joint Health and Safety Committees at your respective nursing homes.

While completing this questionnaire, if there is an answer which you are not able to provide at this time, simply leave the question blank and it can be discussed in the interview which will follow.

About the Questionnaire

The questionnaire assesses 7 OHS best practice areas:

- Section 1: Leadership, Commitment and Participation for Occupational Health and Safety -- The degree of commitment, leadership and effective employee participation in OHS, which are essential to its success.
- Section 2: Health and Safety Policy -- A health and safety policy is a statement of the intention and commitment by the employer toward the health and safety of all employees at the workplace.
- Section 3: Health and Safety Plan -- A Health and Safety Plan describes the health and safety work to be done and measures progress made in the workplace on a yearly basis.
- Section 4: Procedures and Practices -- Health and Safety Procedures and Practices are written step by step instructions to be followed in a certain order for particular tasks and situations.
- Section 5: Competency, Education and Training -- This section assesses if workers are competent to carry out their jobs safely, and if adequate OHS education and training are provided.
- Section 6: Documentation and Data Management -- Data management and reporting refers to ability to collect and use OHS information effectively in your organization.

- Section 7: Monitoring and Evaluation -- Monitoring and Evaluation are the actions undertaken to measure and document the effectiveness of the OHS program.

For each of these best practice areas, there will be specific statements covering policy, practice and process around the OHS program. You will be asked to provide your level of agreement with these statements using a 5-point scale from 'strongly disagree' to 'strongly agree'. There will also be fields for you to provide your comments.

If you have any questions or concerns about this project or about this survey, please contact:

Michael Keating
Executive Director, New Brunswick Association of Nursing Homes
(506) 460-6262

Thank you for your participation in the very important initiative.

Instructions

Terminology

The following are definitions to some of the terms used in this questionnaire...

- **Organization**: the entity or operating unit of the Association for which you work
- **Workplace**: the physical location at which you work
- **Leadership**: the top leaders at your place of work (e.g.: Management)
- **Sr. Leaders**: the senior leaders at your place of work (e.g.: Directors of Nursing and other management)
- **OHS Policy**: a plan or method of action that has been deliberately chosen and that guides or influences future decisions. By stating principles and rules, an occupational health and safety policy guides actions. A policy statement indicates the degree of an employer's commitment to health and safety. The statement of the employers' obligation should be more than an outline of legal duties
- **Hazard**: a source of potential harm to a worker
- **Risk**: a combination of the likelihood of the occurrence of a hazardous event and the severity of harm caused by the event
- **Procedure**: a specific method to carry out an activity or a process. It may or may not be documented
- **Process**: a set of interrelated activities that transforms into outputs
- **Continual improvement**: the process of enhancing the OHS program to achieve ongoing improvement in overall OHS performance
- **OHS performance**: the measured results of your OHS program (i.e.: by comparing your OHS results against your OHS policy, processes and objectives)
- **OHS objectives**: performance goals regarding OHS which your organization has set out
- **Preventive actions**: are steps that are taken to remove the causes of potential nonconformities or other undesirable situations that have not yet occurred. Preventive actions address potential problems

Collaboration

- If you are co-completing this questionnaire (i.e.: completing it together with another colleague), please ensure you collaborate on your answers.
- If an instance arrives where there is disagreement on a response, please report a mutually agreed-upon answer. Any differences of opinion can be brought up in the follow-up interview.
- You will often be asked reflect on 'your workplace'/'your organization' in providing responses. We recognize this might be difficult when co-responding, as both respondents may have a different workplaces. Again, we would encourage to come to a mutually agreed-upon answer in these instances.

Finally, while completing this questionnaire, if there is an answer which you are not able to provide at this time, simply leave the question blank and it can be discussed in the interview which will follow. Please speak on behalf your experiences in your workplace, and not the Association overall.

About You

Are you co-responding to this survey (I.e.: responding together with another individual)?

Please provide the following information:

- Name of first Respondent
- Title first Respondent
- Region first Respondent
- First Respondent's experience with Occupational Health and Safety

- Name of second Respondent
- Title second Respondent
- Region second Respondent
- Second Respondent's experience with Occupational Health and Safety

Section 1: Leadership, Commitment and Participation for Occupational Health and Safety (OHS)

The following section measures the degree of commitment, leadership and effective employee participation in OHS, which are essential to its success.

1. In this organization, there are appropriate financial, human, and organizational resources for OHS.
2. Our leadership reviews the OHS program at regular intervals (e.g. at least annually)
3. Our leadership encourages active participation on the part of workers and worker representatives in OHS. (e.g. support regular communications, group meetings, remove barriers to participation, etc.)
4. There one or more senior leaders designated to have clear roles, responsibilities and authority for OHS.
5. Accountability structures for OHS are in place in this organization (e.g. performance assessment, etc.)
6. OHS information/data is regularly reviewed by our leaders (e.g. audits, incidence rates, etc.)
7. Our leaders seek expert consultation regarding the design and implementation of the OHS programs and services.
8. Our leaders participate in education regarding issues, policies, practices and events that may impact OHS (e.g. psychosocial and physical risk factors, change management, etc.)
9. OHS committees have been established where required by OHS legislations.

   Yes No Not sure

   If Yes,

   a. OHS committee members are well trained in all aspects of OHS associated with their work.
   b. OHS committee members are provided with the time and resources needed to participate effectively in the planning, implementation and evaluation of the OHS program

Would you like to make any other comments about your Leadership, Commitment and Participation for OHS?

Section 2: Health and Safety Policy

A health and safety policy is a statement of the intention and commitment by the employer toward the health and safety of all employees at the workplace.

1. This organization currently has an OHS policy in place.
   Yes No Not Sure

If Yes,

1. Our OHS policy was developed in consultation with the key stakeholders (committee, union, employees, consultants)

2. Our OHS policy is appropriate to the nature, scale and hazards/risks associated with our organization's activities
3. Our OHS policy clearly outlines:
    a. The philosophy and scope of the OHS program
    b. A clear commitment to comply with applicable legal and other requirements
    c. A clear commitment to protect workers
    d. A clear commitment to continual improvement
    e. A framework for setting and reviewing objectives and indicators
4. Our OHS policy is available in a written form that is easily accessible to all employees.
5. Our OHS policy is well communicated throughout our organization.
6. Our OHS policy is annually reviewed and updated.

Would you like to make any other comments about your OHS Policy?

Section 3: Health and Safety Plan

A Health and Safety Plan describes the health and safety work to be done and measures progress made in the workplace on a yearly basis.

1. The OHS program is regularly reviewed to assess conformance with appropriate legal and other requirements
2. There is a process in place to identify and assess our workplace's hazards and risks on an ongoing basis.
3. Preventative and protective measures are developed based on identified hazards and risks.
4. There are OHS goals and objectives annually set and documented

    Yes No Not Sure

    If yes,

    a. Our OHS goals and objectives are measureable.

    b. Our OHS goals and objectives are regularly reviewed and updated, based on changing information and conditions
5. A plan is created each year for how we intend to achieve our OHS goals and objectives

    Yes No Not Sure

    If yes,

    a. Responsibilities and timelines are clearly outlined in our implementation plan.

Would you like to make any other comments about your OHS Plan?

Section 4: Procedures and Practices

Health and Safety Procedures and Practices are written step by step instructions to be followed in a certain order for particular tasks and situations.

1. Are there formal, documented OHS procedures in place to address identified hazards and risks?
   Yes No Not Sure

If Yes,

   a. The OHS procedures are regularly reviewed and updated
   b. The consistency of practices associated with the procedures is ensured, and measured

2. Are procedures established and consistently applied for reporting and investigating work related injuries, illnesses and incidents?
   Yes No Not Sure

If Yes,

   a. The roles and responsibilities in these processes is clearly understood (e.g. for employees and managers)
   b. The identification of the 'root' cause(s) of such incidents is clearly directed in our procedures.
   c. The effectiveness of any corrective action taken is evaluated.

3. Are there procedures in place to prevent, prepare for and respond to emergencies?
   Yes No Not Sure

If Yes,

   a. There is periodic testing of the emergency procedures and plans (e.g. drills)
   b. Emergency procedures are periodically reviewed and updated
   c. Emergency plans and procedures are well communicated and training is provided to workers

4. Are there procedures in place to identify, assess, and eliminate or control OHS risk when there are new processes or operations introduced? (eg. organizational structure, equipment, staffing, services, suppliers, etc.)
   Yes No Not Sure

If Yes,

   a. Such procedural changes are supported by information sessions and training, where appropriate.

5. Are there procedures in place for the evaluation of purchased products, supplies, machinery, equipment, etc.?
   Yes No Not Sure

Would you like to make any other comments about your OHS Procedures and Practices?

Section 5: Competency, Education and Training

This section assesses if workers are competent to carry out their jobs safely, and if adequate OHS education and training are provided.

1. Competence requirements for all of our jobs are established and regularly reviewed.
2. There is a system in place to ensure that workers are competent to carry out all aspects of their duties and responsibilities
3. All employees are oriented to OHS upon hiring (including managers)
4. Employees are updated and regularly trained on OHS policy, procedures and activities
5. Managers are oriented and trained regularly about their specific roles and responsibilities in OHS
6. Employees and managers are well supported to meet their roles and responsibilities of OHS (e.g. have enough time, resources, information, etc.)
7. There is a mechanism in place for workers to provide input or voice concerns about OHS

Would you like to make any other comments about your OHS Education and Training?

Section 6: Documentation and Data Management

Data management and reporting refers to ability to collect and use OHS information effectively in your organization.

1. **There is a system in place for the development, tracking and control of all of the documents and records required to implement an effective OHS program.**
2. Relevant OHS documents are made readily available at 'the point of use' (e.g. fact sheets, forms, etc.)
3. OHS documents are regularly reviewed and updated
4. OHS records are established and maintained to provide evidence of conformity.
5. OHS records are readily retrievable and useable.
6. OHS records are securely stored and protected.
7. The confidentiality of OHS records is maintained, while ensuring access to pertinent data.
8. OHS data is entered in a database and is used to create aggregate reports

Would you like to make any other comments about your OHS Documentation and Data Management?

Section 7: Monitoring and Evaluation

Monitoring and Evaluation are the actions undertaken to measure and document the effectiveness of the OHS program.

1. There are procedures in place and consistently implemented for the monitoring and measurement of our OHS program.

2. There are adequate resources in place (financial, human) for the implementation of the OHS program evaluation.
3. Our organization has access to the necessary competencies to design and carry out OHS evaluation strategies and plans.
4. Workers and their representatives are involved in the evaluation of the OHS program.
5. Is there an internal OHS audit process in place in your organization?
   Yes No Not Sure

If Yes,

a. Our internal OHS audits clearly outline the criteria for auditor competency
b. Our organization conducts internal OHS audits at regularly planned intervals
c. The results of our internal OHS audits are reported to our leadership and other stakeholders

Would you like to make any other comments about your OHS Monitoring and Evaluation?

Closure

Is there anything else you would like to add about OHS that has not been covered in this survey?

Workplace Health Strategy

Strategic Planning Session Report

For

New Brunswick Association of Nursing Homes

Created: 8 November 2010

Revised: 26 November 2010

Presented by:

NBANHs' Wellness Steering Committee

in partnership with The Shepell•fgi Research and Health Consulting Group

www.shepellfgi.com

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Executive Summary

New Brunswick Association of Nursing Homes (NBANH), in conjunction with its Employee Benefits Committee, embarked on an initiative to bring a wellness program to its sector. The goal of this initiative is to create a Workplace Health Strategy to support and measure the health and wellness of the member homes and their employees.

To achieve this goal, a comprehensive needs assessment was first conducted, beginning spring 2010 to obtain baseline measures and collect data to inform the direction of the strategy, including:

1. **An Environmental Scan**
    - To understand the context of the long-term care sector and the employee demographic—predictive indicators of health
2. **An Employee Health and Wellness Survey**
    - To collect baseline health measures
    - To identify leading employee well-being issues
    - To identify leading organizational health issues
    - To collect data to inform actions to improve both health and organizational outcomes
3. **An Integrated Health Data Analysis**
    - To confirm priority health issues
4. **An Occupational Health Best Practices Review**
    - To obtain measures for current OHS policies, procedures and practices
    - To determine gaps and opportunities for improvement against known best practices

On October 20th, 2010, a Wellness Steering Committee met for a facilitated strategic planning session. The Committee reviewed the needs assessment data, and used it to generate recommendations and plan a sustainable, long-term approach to support the health of NBANH's member homes and their employees—the final stage of the project.

The outcomes of the strategic planning session, together with needs assessment findings have been used to design the enclosed 3 –year **Workplace Health Strategy,** which includes:

- ✓ **A Health Framework**
    - Health priorities, health determinants, health tactics
- ✓ **A Strategic Framework**
    - Vision, mission, values and goals
- ✓ **A Strategic Direction**
    - Approach — model, structure, focus
    - 4 key strategies, with recommended objectives to move toward best practice and achieve the Workplace Health mission:
        1. Optimizing Employee Health
        2. Advancing Health Management Systems
        3. Enhancing Work Quality
        4. Performance Excellence

Key Recommendations

To execute on the **Strategic Direction** the following objectives have been recommended:

Optimizing Employee Health:

- Develop and execute a health awareness strategy
- Develop and execute a health education plan
- Implement chronic disease management program
- Implement a walking program, led by employee volunteers
- Deliver a seasonal flu vaccination program
- Implement a risk identification program
- Deliver specialized mental health care services
- Deliver health competitions and challenges more widely as a key way to engage employees
- Implement a walking program led by employee volunteers
- Reassess health risk data from Employee Health and Wellness Survey

Advancing Health Management Systems:

- Conduct a review of best practices for attendance and absence
- Put in place policies to support attendance, absence and disability
- Implement an absence recording process together with manager training – pilot study
- Put in place confidential case support and 3rd party assessment for occupational + non-occupational absence
- Create a formal, documented short-term claims management process
- Create a formal, documented Return to Work (RTW) process
- Implement Association-wide absence recording
- Provide manager/supervisor training on absence and disability support
- Develop and execute absence data review process
- Re-execute Integrated Health Data Analysis

Enhancing Work Quality

- Execute a WSNB claims management review
- Develop a Communications strategy to support the Workplace Health Strategy
- Create a new mandate around Back In Form
- Execute a strategy to act on recommendations from the Occupational Health and Safety Best Practices review
- Develop and launch a manager/supervisor mental health training program
- Conduct a review of worksite healthy food options
- Develop and launch an initiative to orient employees to the Workplace Health Strategy
- Establish a high-functioning Wellness Committees in each home
- Re-execute the Employee Health and Wellness Survey
- Re-execute the Occupational Health and Safety Best Practices review

Performance Excellence

- Hire Workplace Health & Wellness Coordinator
- Identify success measures for Workplace Health Strategy
- Set up a 'Health Partnership' model -- define criteria, engage members
- Create knowledge exchange networks
- Execute an annual strategic plan to deliver on the Workplace Health Strategy
- Execute a comprehensive evaluation closure of the plan each year
- Develop a monitoring and measurement process/initiative
- Set service standards and performance targets for health providers
- Create a dashboard or repository to collect and integrate health metrics

Introduction

To develop the strategy, NBANH assembled a Wellness Steering Committee. On October 20th, 2010 the Steering Committee met for a full-day strategic planning session, facilitated by the Shepell•fgi Research and Health Consulting Group, with the objective of creating Workplace Wellness Strategy for the members of NBANH.

Steering Committee members included:

- Michael Keating (NBANH)
- Nicole McCann (NBANH)
- Sheana Mohra (Rocmaura Nursing Home)
- Shelley Shillington (Loch Lomond Villa)
- Joanne Hardy (Mount St. Joseph Nursing Home)
- Paul Arseneau (Villa St-Joseph/Management Rep)
- Liana O'Brien (Morneau Sobeco)
- Wade Harding (Morneau Sobeco)

Regrets :

- Wayne Brown (CUPE)
- Chantal LaFleur (NBNU)
- Debbie Lacelle (NBU)

Session Facilitator:

- Gillian Dawson, Workplace Health Research Consultant & Project Lead (Shepell-fgi)

The strategic planning session consisted of the following key activities and outcomes:

Activity	*Outcome*
Review need assessment data	✓ Review and baseline health indicators ✓ Understand where employees and homes need the greatest support ✓ Determine health priorities
Healthy Workplace Mission, Vision, Values Identification	✓ Identified long term workplace health vision, mission and values that are aligned with organization
Healthy Workplace Goal, Objective Setting Exercise	✓ Identified and aligned healthy workplace goals, and ensured alignment with organizational goals
Healthy Workplace Program Planning	✓ Identified key programs and activities required to achieve vision, goals and objectives
Healthy Workplace Implementation SWOT analysis	✓ Identified strengths and opportunities of proposed Workplace Health Plan ✓ Brainstormed around how to: a) remove barriers/deal with challenges; b) set up infrastructure needed to move this forward (eg. Resources human/financial); and c) a model and approach

Health Framework

In building a framework, three questions are critical to guide our actions to improve health:

- ✓ "WHAT are our priorities?" (the ISSUES)
- ✓ "On WHAT should we take action?" (the DETERMINANTS of the health issues)
- ✓ "HOW should we take action?" (the TACTICS to be used to address the issues)

Accordingly, to answer these questions, the Steering Committee reviewed the needs assessment data. From there, the Committee came to consensus around the issues, determinants and tactics that would make up the health framework from which the Workplace Health Strategy would be designed.

Health Issues

The confirmed priority areas for action for NBANH are:

- Healthy Lifestyles
- Musculoskeletal Issue & Injury Prevention
- Mental Health Promotion
- Diabetes Prevention and Management

Health Determinants

The confirmed drivers of health that NBANH will focus on supporting are:

- **Health Knowledge** – the degree to which employees are knowledgeable about and interested in improving their own health and well being
- **Personal Health Status** – the physical, social and mental health risks of the employee population
- **Personal Health Practices** – the behaviours that employees engage in that are health promoting, such as healthy eating, physical activity, stress management, tobacco cessation, healthy weight, etc.
- **Healthy and Safe Workplace** – the characteristics of the physical work environment that are health promoting and safe, such as ergonomics, availability of fitness facilities, healthy food options, etc, as well as the characteristics of well culture, such as a high level of communication, high quality leadership and supervision, and effective employee participation in decision making, etc

Health Tactics

Members of the Steering Committee took a 'long-term vision', discussing programs, services and activities that should be in place in order for NBANH to be effective in delivering support across the breath of best practice 'health intervention strategies':

- **Information and Education** – to increase awareness and knowledge
- **Skill Development / Training** - to learn and practice healthy behaviours
- **Assessment/Screening/Referral** - to prevent or delay the onset of chronic illness

- **Counselling/Coaching** - to promote and support sustained healthy lifestyles
- **Attendance Support** – to promote attendance at work and triage to support for health issues
- **Absence & Disability Support** – to promote access to appropriate support and a safe return to work
- **Health Services** – the provision of preventative health care services to keep employees safe and healthy
- **Healthy Workplace Culture** - to eliminate, reduce or mitigate the impact of physical and psychosocial risk factors in the workplace

Members of the working group brainstormed about tactics that would allow for the achievement of their workplace health mission. Existing activities were also discussed. The group then evaluated the recommended tactics against the newly formed wellness program mission and goals.

The Committee identified there were considerable gaps in the existing health programs and systems that would prevent them from delivering a comprehensive Workplace Health Strategy, aligned with best practice, at the present time. Most notably, there are no formal, existing tactics for attendance, absence and disability support, nor healthy workplace culture, making it hard to intervene and improve practices in these areas. These are key systems that must be in order to support health, and it is advisable to have the right infrastructure in place prior to investing in significant health promotion initiatives.

In view of this, the Committee confirmed their desire to move toward achieving leading practices, however, it was determined a 'long-term view' to progressively move toward best practice would be required. These ideas and recommendations, together with the needs assessment data, guided the 3-year Strategic Direction herein.

Strategic Framework

The Steering Committee used the data from the needs assessment to inform a Workplace Strategy for NBANH to support its member homes and their employees. The committee strived to ensure alignment with the Association's business mission, vision, goals and strategic direction. The following strategy was built in the planning session, through the collaboration of the participants:

Vision

The New Brunswick Association of Nursing Homes, the Canadian Union of Public Employees, the New Brunswick Union, the New Brunswick Nurses Union, the Nursing Home Governance Members, together with the leaders and employees of its member homes, share a commitment to building and sustaining optimal workplace wellness in the long-term care sector.

Mission

Our mission is to collaborate with member homes to provide effective strategies and programs to build and sustain a positive and healthy work workplace and support employee well-being.

We will do this by:

- Regularly assessing the health and well-being needs and interests of our member homes and their employees, and providing innovative services and programs to meet those needs.
- Having effective systems in place to proactively identify the health needs of member homes and their employees, and by providing early intervention support.
- Providing access to a range of comprehensive, high quality programs and services that support the full spectrum of health, including physical, social and mental health.
- Regularly measuring the efficacy of our programs and services, to ensure we are focused on quality improvement and deliver value to our member homes and their employees.
- Ensuring and on-going, open dialogue around supporting and managing health issues, including providing opportunities for knowledge exchange, as well as expert consultation around the use of evidence-based best practices.

Values

- We believe that health is a positive concept encompassing physical, social, mental and occupational factors.
- We believe that a healthy and positive work culture is characterized by trust, respect, fairness and open communication, and must be achieved collaboratively through teamwork and the shared commitment of leaders and employees.
- We believe employees are integral to the success of our health strategy and value their role in planning, implementing and evaluating our health programs and services.
- We believe our strategy to support health should driven by employee and organizational needs and interests, and should be effective in identifying and supporting the root causes of health issues.
- We believe in measuring the efficacy of our health programs and services, and ensuring we are focused on quality improvement.

Employee Health Goals

In the strategic planning session, there was consensus around focusing on the following 5 employee health goals:

1. Improving employee physical and mental health
2. Reducing workplace injuries
3. Systematically creating and sustaining a healthy and positive work culture
4. Increasing employee health awareness
5. Creating a supportive work environment

Strategic Direction

Using these ideas and recommendations from the strategic planning session, together with the needs assessment data, the following 3-year Strategic Direction was developed, including:

- ✓ Approach — model, structure, focus
- ✓ 4 key strategies, with recommendations on action to move toward best practice:
    1. Optimizing Employee Health
    2. Advancing Health Management Systems
    3. Enhancing Work Quality
    4. Performance Excellence

Approach

Model — To deliver on these recommendations, a **Health Partnership Model** is being proposed, whereby, participating homes would receive benefits in terms of resources and support to manage employee and organizational health at a certain 'level'. The level of each home would be determined based on their ability to formally demonstrate compliance with the defined criteria to deliver on the objectives of the Strategy. This health partnership model would ensure member homes are provided with effective tools and consultation to be able to meet the strategic objectives.

Structure — The model would be **structured in a hub and spoke fashion**, where an NBANH-hired **Coordinator/Consultant** would act a the point person in supporting the strategy and would disseminate their tools and resources to each home via their Wellness Committee Chair or designate 'Wellness Champion. The Coordinator would hold ownership of the strategic plan and the project/work plan, and would also manage the activities related to the achievement of the strategic objectives. The Coordinator's role would also include providing consultation and advice as required to Executive Directors/Administrators and other stakeholders', facilitating access to services and providers, in addition to coordinating the delivery of program and services. This role is imperative, and will need to be a top priority for the initial program activities to be successful.

Focus — Given the findings from the needs assessment and gaps to achieve the program goals, it is clear that NBANH must first "look out the rear view mirror, before it can look out the front windshield". That is to say, there are major gaps and issues that must be addressed prior to preventative efforts being fruitful.

Presently we are seeing that 80% of the effects of poor health and escalating costs are coming from 20% of the causes—the 80/20 rule. It is clear that the major 'pain points' are resulting from not having adequate infrastructure to support health and make it possible to reduce employee health risks. It would therefore be recommended that the Workplace Health Strategy **first focus on putting in place the best practice systems to support health**, and once they are in place and well functioning, to look to **ramp up preventative and health promotion efforts in subsequent years**.

Strategies

Over a 3-year plan, the following 4 strategies should be the focus for NBANH to support its member homes and their employees:

- ✓ Optimizing Employee Health
- ✓ Advancing Health Management Systems

- ✓ Enhancing Work Quality
- ✓ Performance Excellence

Optimizing Employee Health

Our Goal:

- Provide access to a range of comprehensive, high quality health programs and services to support physical, mental health and occupational health.

We will:

- Ensure a broad range of strategies are used to support health.
- Ensure effective health programs are in place to provide support to member homes and employees at all stages of need, including at work, off work and in the return to work.
- Facilitate a process to regularly assess member homes' and employees' needs, and ensure health offerings meet those established needs.
- Ensure health is supported in a holistic way, with consideration to how the broader determinants of health impact social, mental and occupational health.
- Increase employee health awareness of physical and mental health risk factors and the preventability of chronic conditions.
- Reduce the incidence of modifiable risk factors among employees.

Recommendations:

1. Develop and execute a formal health awareness strategy

- Develop a newsletter with identified themes based on priority health issues, in particular:
  - healthy lifestyle habits, including diet, exercise, stress management and smoking
  - diabetes and its precursors
  - mental illness its signs and symptoms, in addition to the available resources through the EAP, benefits program, and in the community
  - healthy biometrics (blood pressure, BMI, cholesterol and blood glucose)
  - cancer screening guidelines
  - ergonomics for functional health and everyday living in addition to Back In Form awareness
- Select and align communication vehicles for health messaging:
  - Paystub mail outs
  - Leveraging the Resident Information Management (RIM) system
  - Leveraging 'Safety Talks'
  - Leveraging EAP newsletter
- Ensure EAP communications and JHSC communications align with communications strategy
- Leverage EAP webcasts to provide employee training—for themes that align with the strategy
- Consider allowing each home customize their own newsletter (in some homes this is already occurring), but providing monthly content so that health themes and messaging is consistent

2. Develop and execute a health education program

- Ensure content alignment with priority health issues:
  - Healthy diet – healthy eating principles, lunches on the go, reading food labels, etc
  - Exercise – types of exercise, daily requirements, incorporating exercise into family life
  - Women's health issues – age-related issues, cancer screening protocols
  - Mental health – personal and family depression and stress
- Utilize community-based resources (e.g. health centres, hospitals and local grocers) to provide education sessions
- Develop an annual schedule for health education sessions

3. Implement chronic disease management programs specifically for those diagnosed or at-risk for diabetes hypertension/high blood pressure and back/care

- Implement a voluntary health coaching program to support at-risk employees who wish to implement and sustain behaviour change
- Create a process to proactively integrate health coaching into the absence support process, where an employee off work due to biometric risks could be referred directly to a Nurse Health Coach to obtain support for sustained recovery
- Utilize Back In Form specialists/trainers to offer formal employee consultation on back care / musculoskeletal issues
- Leverage pharmacy relationships to bring in Pharmacists to deliver counseling on medical adherence and talk about chronic disease

4. Implement risk identification tactics in particular for blood pressure, cholesterol, diabetes, cancer, mental health/depression

- Leveraging nursing skills to deliver in house blood pressure clinics
- Inquire with EFAP provider around the use of specialized mental health screening
- Procure blood testing services for cholesterol and diabetes
- Conduct information sessions about cancer screening guidelines

5. Offer specialized mental health care services

- Consider leveraging the EFAP as a specialized mental health provider, to assess and support mental health risk, including:
  - A specialized depression care program, offering evidenced-based support for employees self-referring to the EFAP for depression and anxiety
  - A Substance Abuse Program (SAP), providing assessment and treatment recommendations related to drug/alcohol addiction provided by a specialized counselor
  - A Structured Relapse Prevention Program (SRPP), providing longer-term (24-months) follow-up to prevent relapse and disability for those who have completed an addictions program
  - Triage to a specialized case manager to resolve the psychological barriers to return-to-work for employees on disability

- Consider offering specialized mental health intervention for employees off work due to health issues
  - Create a process to proactively integrate specialized mental health counselling as part of the absence management process to assist employees to resolve the psychological barriers to return-to-work

6. Offer health and safety fairs

- Ensure alignment to key issues of concern

7. Deliver health competitions and challenges more widely as a key way to engage employees

8. Implement a walking program, led by employee volunteers

9. Ensure seasonal flu vaccinations are provided, and that there is ongoing monitoring for any pandemic strains of the flu

- Identify tactics to ensure awareness and understanding of implications and benefits of flu vaccine
- Track participation metrics

10. Reassess health risk data from Employee Health and Wellness Survey

- After survey has been re-administered, measure changes in health risk factors, modifiable risks and behaviours through a matched subject analysis
- Review changes to all health scores

Proposed Timeline:

Year	Key Objectives
2011-2013	Develop and execute a health awareness strategy
2011-2013	Develop and execute a health education plan
2011-2013	Implement a walking program, led by employee volunteers
2012-2013	Implement chronic disease management program
2011-2013	Deliver seasonal flu vaccinations program
2012-2013	Implement risk identification program
2013	Deliver specialized mental health care services
2013	Deliver health competitions and challenges more widely as a key way to engage employees
2013	Reassess health risk data from Employee Health and Wellness Survey

Advancing Health Management Systems

Our Goal:

- To support member homes and their employees through effective early intervention for health issues.

We will:

- Put in place infrastructure, policies, procedures and practice standards to proactively address health issues and mitigate risks.
- Use data to identify and objectively understand root causes of health issues.
- Promote access to the right care at the right time.
- Realize the need for managers and supervisors to have timely and relevant information to effectively manage health and safety.
- Ensure coordination between health providers.
- Ensure that member homes, employees and residents benefit from operational efficiencies of a systematic approach to health and safety management and prevention.

Recommendations:

1. Conduct a best practice review to determine how to proactively support health and well-being the moment an employee reports an absence:
    - Ensure there is an actual point of contact or "touch point" when an employee reports an absence or an early and considerate contact by the frontline manager/supervisor for ill/injured worker
    - Ensure there is immediate assistance for employees to identify and resolve the specific issues that are contributing to their absence and/or short-term illness
    - Ensure there is a determination if a health condition is contributing to poor attendance or unusually poor performance at the workplace, and there is a provision of support to improve performance and/or attendance at work

2. Put in place a policy to support attendance, absence and disability
    - Ensure the following leading practices:
        - There is a clear commitment to effectively support employees absence due to occupation and non-occupational reasons is communicated
        - There are expectations and procedures around attendance, absence and disability are documented in a clear and transparent way
        - Employee, manager/supervisor, union and provider(s) roles and responsibilities to support attendance, absence and disability are documented in a clear and transparent way
        - There is a communications process is in place for employee, manager/supervisor, union and provider(s) to guide how attendance, absence and disability is supported
        - Procedures around incidental absence and short-term absence are clearly distinguished in order to ensure employees are provided with the right support for their needs at the right time

3. Implement early intervention tactics

- Training for union representatives and frontline managers/supervisors to proactively improve health and wellbeing through early identification and triage:
    - How to recognize problems
    - The programs and support in place to support health, and how to effectively triage employees to appropriate resources
    - Policies and procedures to support attendance and the role of union representatives and frontline managers/supervisors in the process
- An absence tracking mechanism:
    - To ensure absences are recorded (including absence trends) and communicated the frontline manager/supervisor in real time so that the frontline manager/supervisor is able to respond appropriately, manage patterned issues and facilitate support

4. Put confidential case support and 3rd party assessment in place for short-term occupational and non-occupational absence to ensure the following best practices are in place:

- There is a provision of comprehensive and confidential support for recovery
- There is an initial assessment to identify any barriers (both personal and workplace) and provide early triage to support
- There is an early evaluation of opportunities for accommodation/modified so the employee can continue to stay engaged with the workplace where possible, and to ensure a safe return to work
- There is ongoing collaboration between the employee, manager/supervisor, union representative and treating physician to ensure intervention/support is appropriate
- There is an effective issue resolution process in place
- There is access to an independent medical exam
- There is coordination with the EFAP provider

5. Create a formal, documented short-term claims management process to ensure the following best practices are in place:

- There are service standards for claims decisions
- There is claim validation to assess employee job tasks versus impairment
- There is a policy and procedures regarding how extended absence will be handled

6. Create a formal, documented Return to Work (RTW) process for both non-occupational absence, in addition to occupational absence, to ensure the following best practices are in place:

- There is policy and procedures around RTW
- There are formal standards and guidelines around RTW plans and accommodation
- The roles and responsibilities around RTW are clearly defined and there is a clearly defined RTW coordinator
- There is a formal RTW plan to ensure a safe return to work for the employee (based on his/her abilities), and to ensure any impact on the returning employee's colleagues is considered and mitigated

- There is a formal communications process to guide the RTW process

7. Provide manager/supervisor training on absence and disability support, including:
    - The policy and processes to ensure understanding and consistent application
    - The roles of all parties in the process
    - The legal obligations under Human Rights in terms of information and accommodation
    - How to effectively have conversations and support employees regarding absence and disability

8. Execute a review of attendance and absence data on the aggregate or group level so that root causes of absence can be clearly and objectively identified
    - Ensure data is consistently collected
    - Ensure the appropriate data points are collected to understand root causes of issues
    - Ensure data is regularly reviewed to identify and support at-risk areas
    - Ensure 'top performing' areas are identified and leading practices are sought from them and modeled
    - Ensure 'low performing' areas are indentified and supported
    - Ensure management regularly reviews trends and sets objectives to proactively support employee health and wellbeing

9. Re-execute Integrated Health Data Analysis to include absence and disability incidence data
    - Collect and re-analyze health benefit data including new metrics
    - Determine the overall burden of illness across all benefit categories
    - Determine priority health issues across all benefits

Proposed timeline:

Year	Key Objective
2011	Conduct a review of best practices for attendance and absence
2011	Put in place policies to support attendance, absence and disability
2011	Implement an absence recording process together with manager training – pilot study
2011	Put in place confidential case support and 3rd party assessment for occ + non-occ absence
2011	Create a formal, documented short-term claims management process
2011	Create a formal, documented Return to Work (RTW) process
2012	Implement Association-wide absence recording
2012	Provide manager/supervisor training on absence and disability support

2012	Develop and execute an absence data review process
2013	Re-execute Integrated Health Data Analysis

Enhancing Work Quality

Our Goal:

- To progressively build a culture of wellness, to the mutual benefit of our employees and residents.

We will:

- Support initiatives to enable a culture of wellness.
- Regularly assess and measure the work culture.
- Put tactics in to ensure the work environment is physically and psychosocially safe.
- Ensure employees have a key role in planning, implementing and evaluating our health programs and services.
- Have a formal communications strategy to ensure there is open, transparent communication around the Workplace Health Strategy.

1. Develop a Communications strategy to ensure there is open, transparent communication around the Workplace Health Strategy
    - Ensure the program is marketed to employees to promote engagement in the Workplace Health Strategy
    - Ensure key messages about the Workplace Health Strategy at it goals are well communicated
    - Ensure employees are aware of new programs in place
    - Develop a brand and logo

2. Create a new mandate around Back In Form
    - Approach WSNB to discuss a renewed focus on the Back in Form and U-First programs
    - Develop an approach to launch a formal, continuous Back in Form training program, including creating a large 'trainer' network, using a 'train-the-trainer' approach
    - Create standards for Back In Form to ensure all employees are effectively trained and that training is maintained

3. Execute a WSNB claims management review to understand root causes of claims and drive actions to improve occupational health and safety
    - Consider running a pilot study, by reviewing WSNB claims experience data across the Association to identify 'worst performers'
    - Conduct a comprehensive review process for pilot homes to identify gaps in the claims management process, as well as key actions around OHS procedures, practices, policies and training that will lead improved WSNB rates and decreased occupational absence

4. Develop a strategy to execute on recommendations from the Occupational Health and Safety Best Practices review, in particular:
    - Work plans to take action to close gaps in each best practice area
    - A method to ensure consistency in practices and tactics used around OHS across the Association

- The provision of resources to improve scores around planning, evaluation/monitoring and data management
- A standardized reporting mechanism
- A network for knowledge transfer
- A more focused strategy for the Back In Form and You First programs

5. Provide mental health training to managers, with the objective of enabling managers to detect and refer employees who might be struggling with a mental health concern

- Train managers with the ability to recognize when an employee is struggling or troubled, showing signs of a mental health issue, or demonstrating any precursors to mental illness or relapse, as well as methods to triage to support
- Ensure training is delivered in a 'Mental Health First Aid' workshop format, where Managers are able to learn and practice these skills training, ultimately bolstering their ability deal effectively with increasing mental health issues in the workplace

6. Conduct a review of worksite healthy food options

- Cafeteria and vending machine audits (where applicable)
- Investigating the provision of health meals through Food Services at homes, in particular for those homes which do not have cafeterias

7. Ensure employees and managers are well oriented to the Health Strategy training, and have a high level of awareness of the program goals in addition to the health supports available

- Add a health strategy component to the new-hire orientation
- Add a health strategy component to the manager training session as well as training on how to refer employee to health programs
- Ensure Sr. Leaders know the program well and are clearly communicating about it

8. Re-execute the Employee Health and Wellness Survey

- Conduct a matched subject analysis to assess outcomes changes
- Include additional questions about satisfaction with health programs
- Include additional questions to evaluate success and goal achievement of health programs

9. Establish a high-functioning Wellness Committee in each home

- Create infrastructure: operational processes, roles and responsibilities, supporting documentation
- Develop criteria and standards, for Committee participation
- Ensure Wellness Committee members are well trained on the Workplace Health Strategy and the health programs and services
- Ensure Wellness Committee have annual operations and evaluation plans
- Ensure Wellness Committees are supported with time and resources to execute their annual plan

10. Re-execute the Occupational Health and Safety Best Practices review

- Take second measure with first group of project participants to determine change
- Include additional participants in the sample to have a broader assessment
- Determine new action plans

Proposed timeline:

Year	Key Objective
2011	Execute a WSNB claims management review
2011	Develop a Communications strategy the Workplace Health Strategy
2011	Create a new mandate around Back In Form
2011	Execute a strategy to act on recommendations from the Occupational Health and Safety Best Practices review
2012-2013	Develop and launch a manager/supervisor mental health training program
2013	Conduct a review of worksite healthy food options
2013	Develop and launch an initiative to orient employee to the Workplace Health Strategy
2013	Establish high-functioning Wellness Committees in each home
2013	Re-execute Employee Health and Wellness Survey
2013	Re-execute Occupational Health and Safety Best Practices review

Performance Excellence

Our Goal:

- To ensure a best practice approach to supporting the health of our member homes and their employees.

We will:

- Create a strategic direction and set annual targets to support and maintain health.
- Demonstrate a measurable return on investment to support health.
- Ensure evidence-based practices are being consistently applied.
- Ensure health programs and benefits are sustainable.
- Provide a venue for knowledge exchange around applying leading practices.
- Providing support and consultation for a coordinated and consistent approach to supporting health.
- Ensure innovative strategies and technologies are in place to manage and support health.
- Lead monitoring and evaluation initiatives.
- Leverage partnerships for resources and expertise.
- Seek opportunities to improve operational performance.

Recommendations:

1. Execute an annual strategic plan to deliver on the Workplace Health Strategy
    - Ensure there is a formal, structured planning process in place clearly outlined goals and objectives, and associated measures of success
    - Ensure the plan outlines accountabilities and timelines
    - Ensure the plan is regularly reviewed an updated based on changing needs and priorities

2. Execute a comprehensive evaluation at the year closure of the plan
    - Ensure there is a formal evaluation plan with success measures in place
    - Ensure the data sources and accountabilities to acquire success indicators have been established
    - Ensure results are formally reviewed
    - Ensure results identify gaps and additional assessment areas
    - Ensure 'top performing' areas are identified and leading practices are sought from them and modeled
    - Ensure 'low performers' are identified and supported to be more successful
    - Ensure results drive new objectives to proactively support employee health and wellbeing are set
    - Ensure return on investment is evaluated

3. Put in place a process to guide ongoing monitoring and measurement initiatives

- Ensure monitoring guidelines and standards have been established with clearly outlined intervals
- Ensure the process outlines corrective action for less favorable results
- Ensure there are quarterly reviews of data to ensure root causes of health issues are clearly identified and actions are proactively taken to better support health
- Ensure results and any corrective action or recommendations are summarized in regular (quarterly) reporting
- Ensure management and senior leaders regularly review the results and recommendations
- Ensure there is time and resources to execute monitoring and measurement

4. Set service standards and performance targets for health providers

- Ensure providers are active partners in executing the Workplace Health Strategy
- Ensure providers have clear service standards to deliver on the strategy
- Ensure providers have Workplace Health Strategy performance targets and they are clearly understood

5. Create a dashboard or repository to collect and integrate health metrics

- Ensure there are clear procedures established and maintained for collecting and reporting data
- Ensure the appropriate data points are collected to understand root causes of issues
- Ensure data sources and responsibilities for data collection are established, including for providers

6. Create a formal knowledge exchange process/network

- Ensure a process/channel to for Executive Directors/Administrators and senior leaders to access expert consultation for questions and issues
- Ensure there are standards for provision of consultation (internal/external)
- Ensure there are regular opportunities to share leading practices
- Ensure there is a annual meeting to review program results, network and share leading practices

Proposed timeline:

Year	**Key Objective**
2011	Hire Workplace Health & Wellness Coordinator
2011	Identify success measures for Workplace Health strategy
2011	Set up the 'Health Partnership' -- define criteria, engage members
2011	Create knowledge exchange networks

2011-2013	Execute an annual strategic plan to deliver on the Workplace Health Strategy
2011-2013	Execute a comprehensive evaluation at the closure of the plan year
2012	Develop monitoring and measurement process/initiative
2012	Set service standards and performance targets for health providers
2012	Create a dashboard or repository to collect and integrate health metrics