Review of Selected Public Health Performance Indicators at Renfrew County and District Health Unit

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Contents

Executive Summary **2**

Introduction **3**

Part 1: Immunization Coverage Indicators

Percent of School-Age Children Who Have Completed Immunizations for Hepatitis B 4
Percent of School-Age Children Who Have Completed Immunizations for Human Papillomavirus (HPV) 6
Percent of School-Age Children Who Have Completed Immunizations for Meningococcus 8
Guidance on Improving Performance 10
Actions to Improve Performance 11
Notes 11

Part 2: Health Promotion Indicators

Percent of Youth Who Have Never Smoked 14
Guidance on Improving Performance 15
Actions to Improve Performance 16
Notes 16
References 16
Fall-related Emergency Department Visits in Older Adults 17
Guidance on Improving Performance 19
Actions to Improve Performance 20
Notes 20
References 20
Percent of Population that Exceeds the Low Risk Drinking Guidelines 21
Guidance on Improving Performance 22
Actions to Improve Performance 23
Notes 23
References 24

Executive Summary

This report looks at a subset of the 15 performance indicators in the 2011 – 2013 Accountability Agreements between the Ontario Ministry of Health and Long-Term Care and Ontario's 36 local public health agencies. Accountability agreements are a key part of the performance management framework for public health in Ontario. 2012 was the first year that these performance indicators were monitored.

Some of the performance indicators are particularly challenging because their achievement is influenced by variables beyond the control of local public health agencies. Six of these indicators are examined in this report and summarized in the table below.

Summary of selected Ontario public health performance indicators: baselines, targets and 2012 performance for Renfrew County and District Health Unit

Indicator	Baseline	2012 Target	2012 Performance	2013 Target
Percent of school-aged children who have completed immunizations for Hepatitis B	82.3%	Maintain or improve (increase)	Achieved (93.6%)	Improve (increase)
Percent of school-aged children who have completed immunizations for Human Papillomavirus (HPV)	50.5%	Maintain or improve (increase)	Achieved (59%)	At least 55.5%
Percent of school-aged children who have completed immunizations for Meningococcus	81%	Maintain or improve (increase)	Not achieved (67%)	At least 86%
Percent of youth (ages 12 – 18) who have never smoked a whole cigarette	83%	No target for 2012	Not applicable	84.7%
Fall related emergency department visits in older adults age 65+ (rate per 100,000)	8,365 visits/100,000 adults age 65+	No target for 2012	Not applicable	Maintain or improve (decrease)
Percent of population (age 19+) that exceeds the Low-Risk Alcohol Drinking Guidelines	36.5%	No target for 2012	Not applicable	35%

Introduction

This report examines six of the 15 performance indicators that are in the 2011 – 2013 Accountability Agreements between the Ontario Ministry of Health and Long-Term Care and Ontario's 36 local public health agencies.

Accountability Agreements are a key piece of the performance management framework for public health in Ontario. Accountability Agreements set specific performance expectations, and describe how these expectations are monitored. Annual performance targets have been set for each performance indicator. Performance targets relate to baseline measures of performance at each local public health agency.

2012 was the first year that these performance indicators were monitored. The monitoring process attempts to measure how well Ontario's local public health agencies are delivering programs and services and the value they provide to the community, and informs efforts towards continuous quality improvement.

Some of the performance indicators are particularly challenging because their achievement is influenced by variables beyond the control of local public health agencies. This report focuses on these indicators and how Renfrew County and District Health Unit is addressing each indicator. The six performance indicators are:

- Percent of school-age children who have completed immunizations for Hepatitis B
- Percent of school-age children who have completed immunizations for HPV
- Percent of school-age children who have completed immunizations for meningococcus
- Percent of youth (ages 12 – 18) who have never smoked a whole cigarette
- Fall-related emergency visits in older adults aged 65+ (rate per 100,000)
- Percent of population (age 19+) that exceeds the Low-Risk Alcohol Drinking Guidelines

This report is the 19th in a series of community health status reports by Renfrew County and District Health Unit. The most recent of these reports are on our web site: http://www.rcdhu.com/Pages/HealthStatus/index.html

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Part 1: Immunization Coverage Indicators

Three performance indicators focus on immunization coverage rates for publicly funded vaccines that are provided through schools to grade 7 and 8 students.

School-based immunization programs are a core business of public health units in Ontario, and program effectiveness can be measured by looking at coverage rates. This information can also be useful for tracking immunization trends over time, identifying sub-populations with inadequate coverage, and contributing to the evaluation of immunization promotion initiatives. [1]

Percent of School-Age Children Who Have Completed Immunizations for Hepatitis B

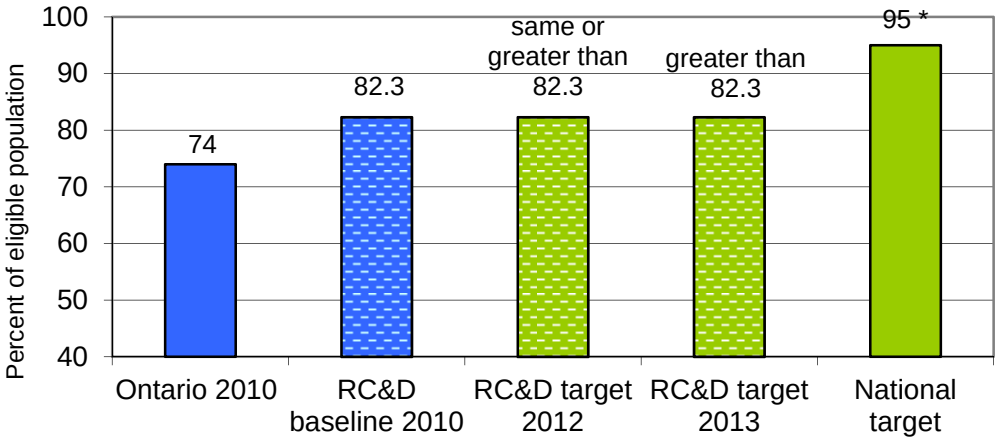
Performance indicator: Percent of 12 year old students who received the requisite two doses of hepatitis B vaccine at the appropriate interval between doses by the end of the school year.

Hepatitis B is one of several viruses that cause hepatitis, an infection of the liver. Over 90 percent of adults who are infected with hepatitis B have an acute (short-term) infection, recover on their own and develop lifelong protection against it. The remaining 3 to 10 percent develop a chronic (long-term) infection. Infants and children who are infected with hepatitis B are much more likely to be unable to clear the infection. Those with a chronic infection are at ongoing risk of transmitting the virus to others and of developing serious complications such as scarring of the liver (cirrhosis) or liver cancer. [2]

Between 2005 and 2011, an average of 151 cases of Hepatitis B were reported annually in Ontario (1.1 cases per 100,000 population). [3] In Renfrew County and District (RC&D) during the same period there was less than one case per year on average (.56 cases per 100,000 population). [4]

In 1994 a publicly funded hepatitis B immunization program was introduced in Ontario. Grade seven students and people at risk of getting hepatitis B are eligible to receive the vaccine free of charge. The incidence of hepatitis B across Canada has been decreasing in all age groups, coinciding with use of the vaccine. [2]

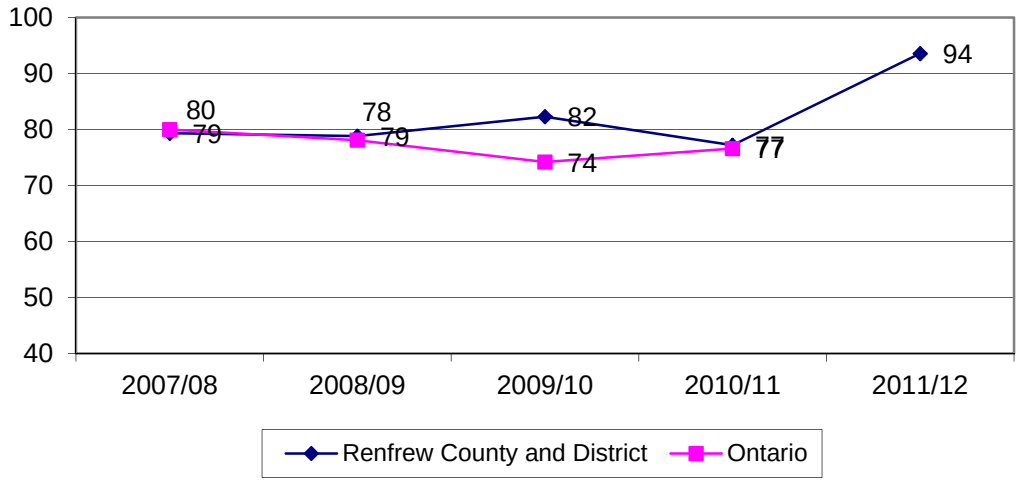
Hepatitis B Immunization Coverage
Baseline and Targets



RC&D = Renfrew County and District
* 95 percent of populations targeted in universal programs
Sources: See Reference 5

- In RC&D the baseline immunization coverage for hepatitis B vaccine was 82.3 percent. This is above the coverage rate in Ontario as a whole.
- The 2012 target for RC&D is to maintain **or** improve in relation to the baseline. The 2013 target is to improve in relation to the baseline.

Hepatitis B Immunization Coverage
2007/08 - 2011/12 School Years



Sources: See Reference 6

- In RC&D the target for 2012 has been met. At 94 percent, the coverage rate for the 2011/12 school year is substantially above the baseline.

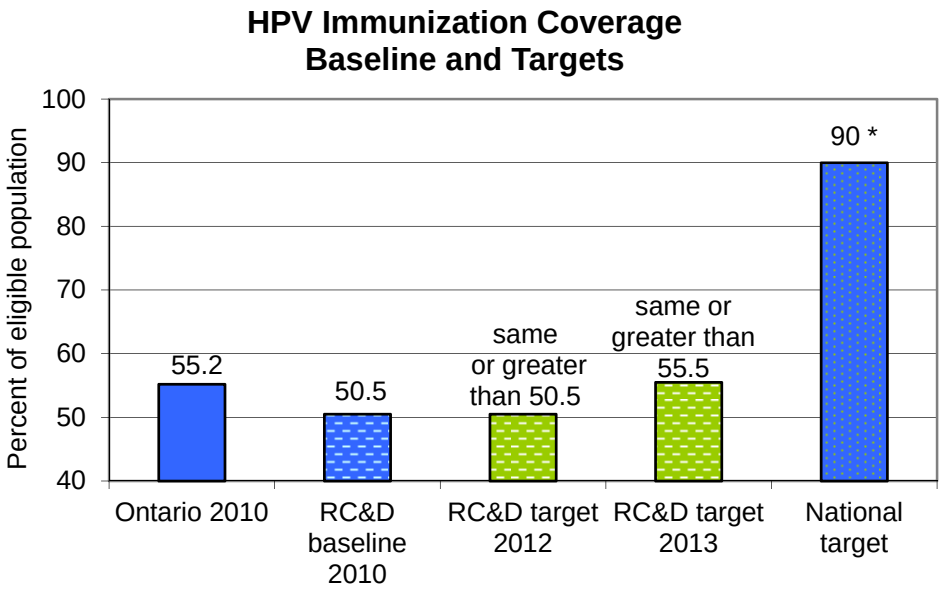
Percent of School-Age Children Who Have Completed Immunizations for HPV

Performance indicator: Percentage of 13 year old female students who have received the requisite three doses of Human Papillomavirus (HPV) vaccine at the appropriate interval between doses by the end of the school year.

Human Papillomavirus (HPV) is a virus that can cause cervical, anal and penile cancers, and anal and genital warts. About three out of four people who are sexually active will be infected with HPV at some time in their lives. [7]

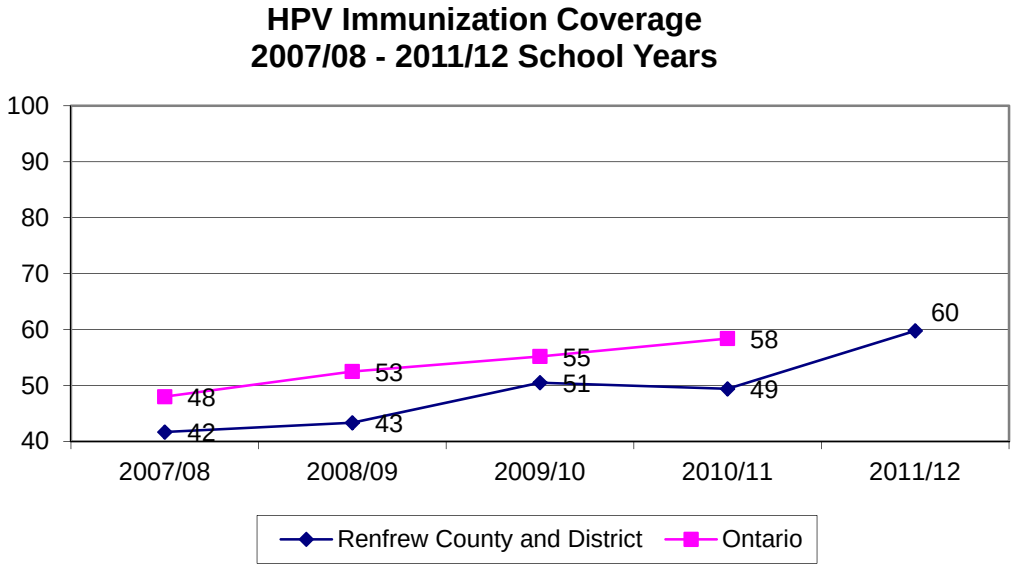
While most women who have had an HPV infection do not develop cervical cancer, some persistent infections lead to cancer. Every year in Ontario, about 550 women are diagnosed with cancer of the cervix and about 160 women die from this disease. [8] Cervical cancer incidence and mortality in Ontario decreased steadily between 1981 and 2002 because of widespread cervical cancer screening (Pap test) which detects early cancer and cancer precursors caused by persistent HPV infection so that it can be treated. [9]

HPV vaccination can prevent cervical cancer by preventing HPV infections. A vaccine against HPV was approved in Canada in 2006 and a publicly funded HPV immunization program for grade 8 girls was introduced in Ontario in 2007. The vaccine is almost 100 percent effective in preventing infection caused by the four types of HPV that are responsible for 70 percent of cervical cancer and 90% of genital warts. [10] Three doses of the vaccine are given two and six months apart.



RC&D = Renfrew County and District
* 90 % of school-age girls within 5 years of program introduction
Sources: See Reference 11

- In Renfrew County and District (RC&D), the baseline immunization coverage for HPV vaccine was 50.5 percent. This is below the coverage rate in Ontario as a whole.
- The 2012 target for RC&D is to maintain **or** improve in relation to the baseline. The 2013 target is to improve by at least five percentage points over the baseline.



Sources: See reference 6

- In RC&D the target for 2012 has been met. The coverage rate for the 2011/12 school year is almost 10 percentage points above the baseline.

Percent of School-Age Children Who Have Completed Immunizations for Meningococcus

Performance indicator: Percent of 12 year old students who received the requisite dose of meningococcal conjugate C or ACYW vaccine by the end of the school year.

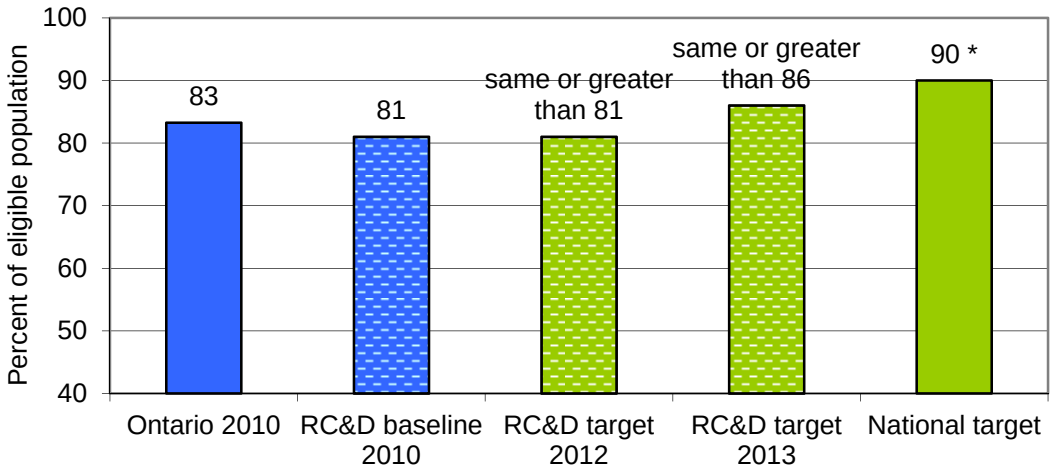
Invasive meningococcal disease (IMD) is an illness caused by the bacterium *Neisseria meningitidis*. IMD may lead to meningitis (a bacterial infection of the fluids and membranes covering the brain and the spinal column) or septicemia (a systemic infection of the bloodstream). Severe cases can result in delirium and coma and, if untreated, toxic shock and death. In Canada, five of the bacteria's serogroups (A, B, C, W-135, and Y) are responsible for the majority of disease. [12]

Between 2005 and 2011, an average of 52 cases of IMD were reported annually in Ontario (0.4 cases per 100,000 population). [13] In Renfrew County and District (RC&D) during the same period there were 1.3 cases per year on average (1.25 cases per 100,000 population). [14]

IMD most often occurs in children and young adults, and newly gathered adults living in crowded conditions. It is more common in males than females. [15]

In Ontario, a vaccine against serogroup C was publicly funded in 2005, and since then there has been a decrease in IMD caused by meningococcal C. Since 2000, there has been an increase in the incidence of disease caused by groups Y and W135. Beginning in 2009 the vaccine included protection against four serogroups (A, C, W-135, and Y). Students in grade 7 are eligible to receive the vaccine free of charge. [16]

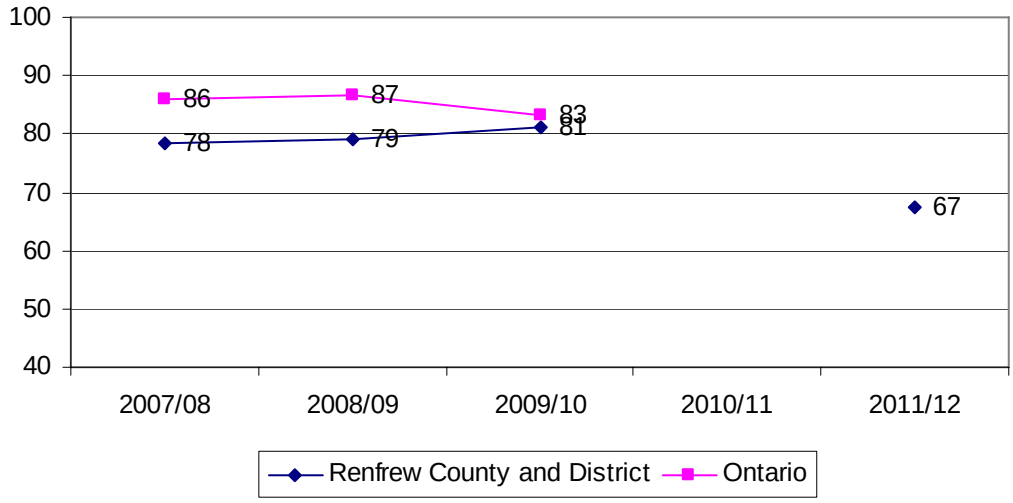
**Meningococcal Immunization Coverage
Baseline and Targets**



ON = Ontario; RC&D = Renfrew County and District
*90 percent of school-age children
Sources: See reference 17

- In RC&D, the baseline immunization coverage for meningococcal vaccine was 81 percent. This is close to the coverage rate in Ontario as a whole.
- Our target for the 2012 is to maintain **or** improve in relation to the baseline and for 2013 to improve by at least five percentage points over the baseline.

**Meningococcal Immunization Coverage,
2007/08 - 2011/12 School Years**



Sources: See reference 6
Coverage information is not available for the 2010/11 school year.

- In RC&D the target for 2012 has not been met. The coverage rate for 2011/12 school year is 14 percentage points below the baseline.
- Coverage rates for meningococcal vaccine shown here are extracted from the Immunization Records Information System (IRIS). We understand that there may be an issue with how these coverage rates are calculated (see Notes on page 11). The rates estimated by IRIS contradict our vaccine invoices/reports to the Ministry of Health and Long-Term Care, which show that the number of doses given rose slightly from 2009/10 to 2011/12. 762 students were immunized in 2009/10, 775 in 2010/11 and 814 in 2011/12.

Guidance on Improving Performance

The hepatitis B, HPV and meningococcal vaccines offered through schools are voluntary compared to other childhood vaccines that are required to attend school.

Parents, students and school staff have a range of attitudes, beliefs and knowledge about the benefits and risks of these vaccines and the risks of the diseases that they protect against. These are influenced by information in the news media and on the internet for and against vaccines, and the different ways that individuals assess risk and interpreting scientific information. [18]

Some suggestions for increasing the acceptability and uptake of immunizations are:

- Provide information about the vaccines for at least three distinct target audiences: parents, students and school staff.
- Provide clear information about vaccine safety, potential short and long-term benefits and risks of both the vaccines and the diseases they protect against, common misconceptions and references/links for people who would like more information.
- Use plain language and aim for a grade 6 reading level.
- Provide information through a variety of different channels: e.g. print materials distributed through schools, the health unit web site, social media, local health care providers, and classroom presentations for students.
- Respond to any concerns expressed by parents and students with respect, and answer questions honestly and without judgment.
- Resend consent forms that have not been received, possibly including more detailed risk and safety information. This can be followed up with a telephone call by a Public Health Nurse who can answer questions.
- Students may have fear and anxiety about getting a needle. On vaccination day, use practices that decrease anxiety and improve the experience for students. [18]

Actions to Improve Performance

Research

A proposed research project addresses the question: "What program delivery strategies could increase coverage rates of Ontario's school based HPV, Hepatitis B and Meningococcal immunization programs?" The proposal was developed as part of the "Locally Driven Collaborative Projects" initiative of Public Health Ontario. It was to be carried out by several health units including Renfrew County and District Health Unit. However, as of February 2013 this project is on hold.

Parental consent for girls to receive the HPV vaccine has been low, and not all girls who receive the first injection proceed to complete the three dose regimen. At this writing a study is underway in Ontario to address parental safety concerns regarding the HPV vaccine. It will assess the risk of serious adverse events associated with the use of the HPV vaccine in Grade 8 girls, describe the patterns of use of this vaccine and identify predictors of vaccine avoidance and non-adherence. [19] Renfrew County and District Health Unit is participating in this research.

Communication with Parents

In June 2011 we began to enhance communications with parents/guardians by adjusting the timing and frequency of the distribution of written information.

Notes

As of March 2013 the Ministry of Health and Long-Term Care is reviewing the coverage values reported from the Immunization Records Information System (IRIS). All coverage rates in this report are from IRIS. This report will be updated after the ministry has completed its review and communicated with us regarding these indicators.

The method for calculating immunization coverage rates in this report does not include immunizations that were completed during the following school year. Students who do not receive the vaccine or vaccine series in grade 7 are eligible to receive it until the end of the following school year. Starting in September 2012, girls can receive the HPV vaccine free of charge until the end of grade 12. Therefore the coverage rates are under-estimates of actual coverage.

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1 Ontario Ministry of Health and Long-Term Care. Public Health Division and Health Promotion Division. Technical Document: Public Health Accountability Agreement Indicators 2011 – 2013 Version 3. January 17, 2012, page 30.

2 National Advisory Committee on Immunization. Canadian Immunization Guide Seventh Edition – 2006. Public Health Agency of Canada. Infectious Disease and Emergency Preparedness Branch, Centre for Infectious Disease Prevention and Control. Hepatitis B Vaccine chapter available online at: http://www.phac-aspc.gc.ca/publicat/cig-gci/p04-hepb-eng.php (Accessed November 1, 2012).

3 Hepatitis B cases from Ontario Public Health Portal, Infectious Disease Reports (2005 – 2008) and Public Health Ontario, Monthly Infections Disease Surveillance Report, February 2012 (2009 – 2011). Population estimates from intelliHealth Ontario, extracted November 1, 2012.

4 Hepatitis B cases from Integrated Public Health Information System (iPHIS), extracted October 31, 2012. Population estimates from intelliHealth Ontario, extracted November 1, 2012.

5 **Hepatitis B Immunization Coverage, Baseline and Targets**
Ontario and RC&D Coverage - Ministry of Health and Long-Term Care, Public Health Division. Immunization Coverage Report for School Pupils, 2009/10 School Year, page 13.
RC&D target - Letter from Ministry of Health and Long-Term Care to Medical Officer of Health, Renfrew County and District Health Unit re: Performance Targets for the 2011 – 2013 Public Health Accountability Agreement Indicators. Appendix A: Response to Renfrew County and District Board of Health Targets. May 9, 2012.
National target - Public Health Agency of Canada. Canadian National Report on Immunization, 1996. In Canada Communicable Disease Report, May 1997; 23S4.

6 **Immunization Coverage, 2007/08 – 2011/12 School Years**
Ministry of Health and Long-Term Care, Public Health Division. Immunization Coverage Report for School Pupils, School Years 2007/08 and 2008/09, page 13. Immunization Coverage Report for School Pupils, 2009/10 School Year, page 13. Public Health Ontario. Immunization Coverage Report for School Pupils, 2010/11, pages 18 and 20. Immunization Records Information System coverage report for 2011/12 school year.

7 Public Health Agency of Canada. Human Papillomavirus. Available online at: http://www.phac-aspc.gc.ca/std-mts/hpv-vph/fact-faits-eng.php (Accessed October 4, 2012).

8 Cancer Care Ontario. Cervical Screening. Available online at: https://www.cancercare.on.ca/pcs/screening/cervscreening (Accessed October 4, 2012).

9 Cancer Care Ontario. Insight on Cancer: News and Information on Cervical Cancer. Toronto: Canadian Cancer Society (Ontario Division), 2005.

10 Public Health Agency of Canada Human Papillomavirus (HPV). Available online at: http://www.phac-aspc.gc.ca/std-mts/hpv-vph/fact-faits-eng.php (Accessed October 4, 2012).

11 **HPV Immunization Coverage, Baseline and Targets**
Ontario and RC&D coverage - Ministry of Health and Long-Term Care, Public Health Division. Immunization Coverage Report for School Pupils, 2009/10 School Year, page 13.
RC&D target - Letter from Ministry of Health and Long-Term Care to Medical Officer of Health, Renfrew County and District Health Unit re: Performance Targets for the 2011 – 2013 Public Health Accountability Agreement Indicators. Appendix A: Response to Renfrew County and District Board of Health Targets. May 9, 2012.
National target - Canadian Immunization Committee. Recommendations on a HPV Immunization Program. Public Health Agency of Canada. 2007. Page 20.

12 Public Health Agency of Canada, Invasive Menincococcal Disease. Available online at: http://www.phac-aspc.gc.ca/im/vpd-mev/meningococcal-eng.php (Accessed October 4, 2012).

13 2005– 2008: Ministry of Health and Long-Term Care. Ontario Annual Infectious Diseases Epidemiology Report 2008, page 94. 2009-2011: Public Health Ontario, Monthly Infectious Diseases Surveillance Report February 2012, page 11.

14 Invasive meningococcal disease (IMD) cases from Integrated Public Health Information System (iPHIS), extracted October 31, 2012. Population estimates from IntelliHealth Ontario, extracted June 31, 2012 and November 1, 2012.

15 Ministry of Health and Long-Term Care. Infectious Diseases Protocol, 2009. Appendix A: Disease Specific Chapters. Chapter: Meningococcal Disease, Invasive. Available online at: http://www.health.gov.on.ca/english/providers/program/pubhealth/oph_standards/ophs/progstds/idprotocol/appendixa/meningococcal_chapter.pdf (Accessed November 1, 2012).

16 Ministry of Health and Long-Term Care. Enhanced Meningococcal Disease Vaccine Program for Grade 7 Students: Questions and Answers for Health Units. Available online at: http://www.health.gov.on.ca/english/providers/pub/immun/meningococcal_phu_qa.html (Accessed October 4, 2012).

17 **Meningococcal Immunization Coverage, Baseline and Targets**
Ontario and RC&D coverage - Ministry of Health and Long-Term Care, Public Health Division. Immunization Coverage Report for School Pupils, 2009/10 School Year, page 13.
RC&DHU target - Letter from Ministry of Health and Long-Term Care to Medical Officer of Health, Renfrew County and District Health Unit re: Performance Targets for the 2011 – 2013 Public Health Accountability Agreement Indicators. Appendix A: Response to Renfrew County and District Board of Health Targets. May 9, 2012.
National target - Public Health Agency of Canada. Final Report to Outcomes from the National Consensus Conference for Vaccine-Preventable Diseases in Canada. Canada Communicable Disease Report. 2008; 34S2 (Supplement), page 25.

18 City of Hamilton Applied Research and Evaluation, Public Health Services. Vaccine Preventable Disease School Program Evaluation Phase One: Literature Review, 2012.

19 Levesque L. Short term safety and use of the quadrivalent HPV Vaccine: The Ontario cohort study. Communication sent to Ontario local public health agencies invited to participate in research project, August 16, 2010.

Part 2: Health Promotion Indicators

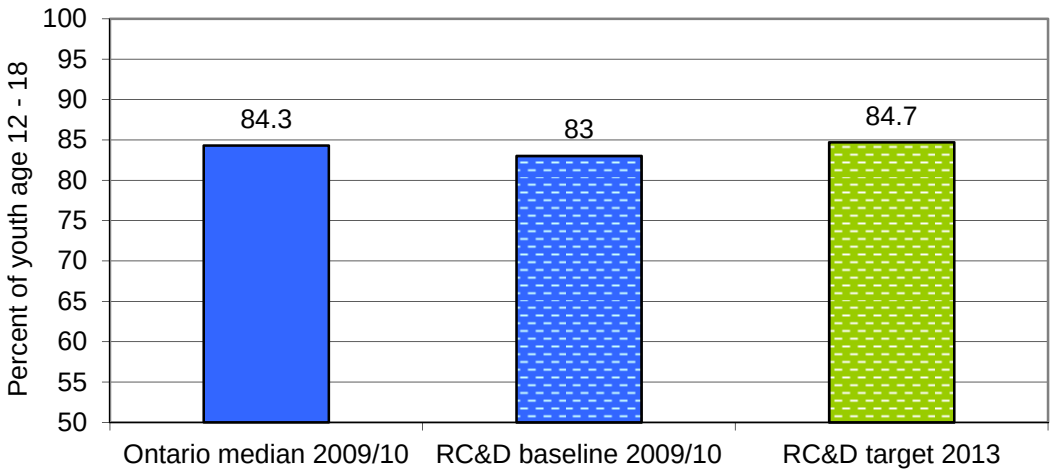
Percent of Youth Who Have Never Smoked

Performance indicator: Percent of youth (ages 12 – 18) who reported they have never smoked a whole cigarette.

Preventing youth from experimenting with smoking is important in preventing them from smoking as adults, and in preventing illness and death from smoking-related diseases. Youth prevention initiatives are an integral part of the Smoke-Free Ontario Strategy. This indicator aims to reflect efforts by public health to prevent youth from using tobacco as part of the *Chronic Disease Prevention* standard. [1, 2]

In spite of recent gains in the reduction of tobacco use, over 1.6 million Ontarians (17%) still smoke. [3] Tobacco use is a cause of cardiovascular disease, a range of cancers, respiratory diseases, poor wound healing, cataracts, infertility, premature birth and sudden infant death. Tobacco use is the leading cause of preventable death and is often considered the leading public health problem in Ontario. [4]

Percent of Youth Who have Never Smoked a Whole Cigarette, Baseline and Target



RC&D = Renfrew County and District
Source: See reference 5

- In Renfrew County and District (RC&D), the percent of youth who have never smoked a whole cigarette at baseline was 83 percent. This is close to the Ontario median.
- The 2013 target for RC&D is an increase of two percent relative to the baseline. (83% X .02 = 1.66 rounded to 1.7. 83% + 1.7 = 84.7%)

- Smoking rates among people age 12 and over have been significantly higher in RC&D than in Ontario as a whole (25% vs. 19% were current smokers in 2009/10).[6]

Guidance on Improving Performance

The *Comprehensive Tobacco Control Guidance Document* [3] is closely aligned with Ontario's Tobacco Control Strategy. This strategy involves a variety of organizations including local public health agencies working together to eliminate tobacco-related illness and death.

Some elements of the prevention component of the Ontario Tobacco Strategy are:

- Increase awareness of the risks associated with tobacco use and the determinants of initiation
- Reduce tobacco industry marketing that targets children, youth and young adults
- Increase enforcement of laws that limit youth access to tobacco and prohibit smoking at school
- Increase taxation on cigarettes to the provincial average

In relation to youth smoking prevention, the *Guidance Document* emphasizes partnership and collaboration within health unit programs and with members of the school community, Tobacco Control Area Network members and provincial supports. Recommended activities include:

- Developing and promoting by-laws and policies (e.g. tobacco free zones around schools, tobacco-free policies for school sports teams, smoke-free patios, smoke free municipal events and festivals, use of zoning rules to control the location of tobacco vendors)
- Developing and facilitating youth-led prevention activities and engaging youth in implementing school and community policies and programs
- Working with schools to reach youth and young adults with interventions that are likely to prevent first use and/or interrupt habitual use
- Reaching out to at-risk youth and young adults (e.g. those living in families with low incomes, having difficulty at school, participating in risky behaviours, etc.) at the time when an intervention is most likely to have an impact

The *Tobacco Use Prevention Program Framework for Youth Engagement Staff of Public Health Units* [7] provides direction related to applying youth engagement principles to reach youth in educational and community settings.

Actions to Improve Performance

Renfrew County and District Health Unit works with the East Region Tobacco Control Area Network (TCAN) and local community partners to plan and carry out comprehensive tobacco control programming. These include:

- Increasing the capacity of staff and community partners to implement tobacco use prevention, cessation and protection activities through training and professional development
- Raising awareness about tobacco issues
- Using a youth engagement approach to involve youth in addressing tobacco issues in schools and in the community
- Encouraging and supporting policy development to create tobacco-free outdoor spaces
- Promoting smoking cessation supports and resources to influencers of youth including parents, teachers, coaches and peers
- Enforcing the Smoke-Free Ontario Act

We are continuing to analyze how the above actions influence smoking initiation and discussing how to strengthen our work on preventing tobacco use among youth and young adults.

Notes

Estimates of the percent of youth who have never smoked a whole cigarette are based on Statistics Canada's Canadian Community Health Survey. 2012 data from the survey will be monitored but the 2013 target will be assessed using combined 2012 and 2013 data. Combining two years of data provides a more reliable estimate.

Health units will be considered to have met targets if the confidence interval of the 2012/13 value includes the 2013 target. [5] A confidence interval is a range within which the parameter that you are estimating (e.g. percent of youth who have never smoked) is likely to actually fall.

References

1 Ontario Ministry of Health and Long-Term Care. Public Health Division and Health Promotion Division. Technical Document: Public Health Accountability Agreement Indicators 2011 – 2013. January 17, 2012 Version 3. page 33.

2 Ontario Ministry of Health and Long-Term Care. Ontario Public Health Standards, Chronic Disease Prevention

3 Ontario Ministry of Health Promotion. Standards, Programs and Community Development Branch. Comprehensive Tobacco Control Guidance Document. May 2010.

4 Association of Public Health Epidemiologists, Core Indicator 5A: Smoking Status, 2009

5 Letter from Ministry of Health and Long-Term Care to Medical Officer of Health, Renfrew County and District Health Unit re: Performance Targets for the 2011 – 2013 Public Health Accountability Agreement Indicators. Appendix A: Response to Renfrew County and District Board of Health Targets. May 9, 2012.

6 Renfrew County and District Health Unit. Quick Health Statistics: Current Smokers in Renfrew County and District, 2011.

7 Ontario Ministry of Health and Long-Term Care. Tobacco Use Prevention Program Framework for Youth Engagement Staff of Public Health Units. October, 2012.

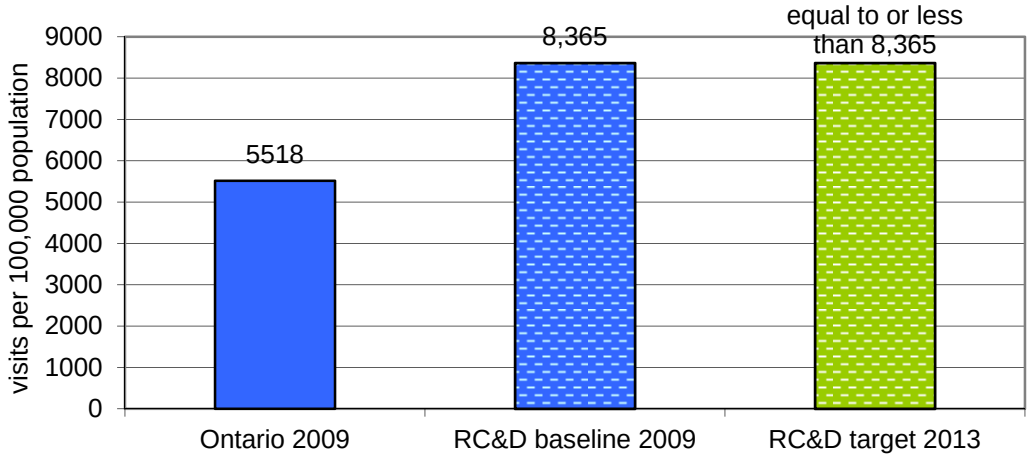
Fall-related Emergency Department Visits in Older Adults

Performance indicator: Rate of injuries related to falls that result in visits to hospital emergency departments, in adults aged 65 and older (number of visits per 100,000 population).

Most falls are predictable and preventable, yet fall-related injuries are common among older adults. The *Prevention of Injury and Substance Misuse* standard [1] requires boards of health to work on increasing the capacity of the public and priority populations to prevent injuries including falls, and to influence the development of policies, programs and services to prevent injuries including falls. This indicator reflects public health efforts related to preventing falls. [2]

For Ontarians aged 65 and older, falls are the leading cause of injury-related emergency department visits, hospitalizations, and in-hospital deaths. [2] The number of adults age 65 and over is projected to double between 2010 and 2036 so the impact of falls in this age group will increase. [2] Falls in this age group are a significant burden on the health care system, and can have a devastating effect on the independence and well-being of seniors.

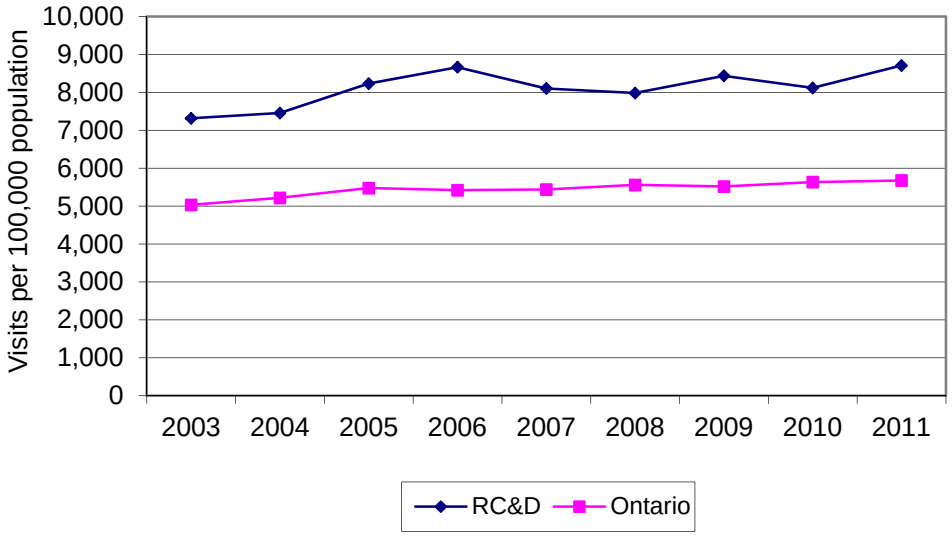
Fall-related Emergency Department Visit Rates
Age 65+, Baseline and Target



RC&D = Renfrew County and District
Source: See reference 3

- In Renfrew County and District (RC&D), the rate of emergency department visits for falls at baseline was 8,365 visits per 100,000 adults age 65 and over in the population. Of the 36 health units in Ontario, our baseline is the highest.
- The 2013 target for RC&D is to maintain or improve (decrease) the visit rate in relation to the baseline.

Fall-related Emergency Department Visit Rates
Age 65+



RC&D = Renfrew County and District
Source: IntelliHealth Ontario, Fall-Related Emergency Visits 65+, Extracted Sept 26, 2012

- The above graph shows that emergency department visit rates for injuries caused by falls in RC&D has been consistently higher than in Ontario as a whole over the time period shown. The visit rate in RC&D improved slightly in 2010 in relation to the 2009 baseline, but in 2011 increased to 8,709 visits per 100,000 adults age 65 and over.

Unintentional Injuries in Renfrew County and District [4] identified that emergency department visit rates for all unintentional injuries combined are consistently higher here than in Ontario as a whole for all age groups and both sexes. The Champlain LHIN has identified that Renfrew County's emergency department visit rates for all causes in 2010/11 were up to three times the rates seen in the Ottawa region. [5]

Higher emergency department visit rates in RCD are possibly related to lack of alternatives to emergency care:

- Limited availability of walk-in clinic hours
- In 2009/10, 16 percent of the population reported being without a regular medical doctor compared to 9 percent in Ontario as a whole. However, in 2003 and 2007 we had a higher proportion reporting that they had a regular medical

doctor compared to Ontario as a whole, and differences were small in 2005, 2008 and 2011.[6]

Guidance on Improving Performance

The *Prevention of Injury Guidance Document* [7] presents falls in older adults as a multi-faceted issue which requires the coordinated efforts of local, provincial and national partners to address successfully.

- Efforts should incorporate the understanding that falls are not an inevitable result of aging. Different approaches should be used with seniors at low risk, medium risk and high risk of falling.
- All health professionals that have contact with older adults have a role to play. They each need training in falls prevention, appropriate tools (e.g. risk assessment procedures and referral protocols), and available time to spend on falls prevention work.
- Older adults need to understand what to do to prevent falls, and they need the motivation and/or support to undertake falls prevention measures.
- Older adults need to live in a safe environment and have enough money to pay for assistive devices and home renovations when needed.
- The built environment in communities needs to be "age-friendly" including accessible exercise programs (no to low cost) and practical transportation options.
- Community partnerships addressing falls prevention should keep the needs and wishes of older adults at the forefront when making decisions, which means that older adults should be involved in all stages of planning, implementing and evaluating falls prevention initiatives.

Several falls prevention programs that can be implemented in communities are available. [7] However, there seems to be conflicting evidence about the most effective approaches:

- The *Prevention of Injury Guidance Document* promotes multi-factorial, comprehensive approaches over single-factor interventions.
- A meta-analysis of randomized control studies assessing effectiveness of fall prevention interventions among community-dwelling older people at risk to fall showed that both exercise and multi-factorial interventions were appropriate in reducing recurrent falls, although exercise programs were more than five times more effective. [8] A similar review concluded that multi-factorial interventions have been shown in some studies to be effective, but have been ineffective in others. These are complex interventions, and their effectiveness may be dependent on factors yet to be determined. [9]

The Ministry of Health and Long-Term Care encourages health units to collaborate with their Local Health Integration Network (LHIN) and other community partners to set consistent targets and share resources. [3]

Actions to Improve Performance

Renfrew County and District Health Unit chairs a community coalition - the Aging Safe, Healthy and Strong Committee (formerly the Renfrew County Injury Prevention Committee for Older Adults). Through this group, many local agencies collaborate on strategies to reduce falls and promote safe and healthy living among older adults.

Recently this group has been working on updating and developing communication materials on the prevention of falls, and strengthening relationships with service providers to facilitate the dissemination of this material. Available materials are:

- Home Safety Checklist
- Medications and Falls rack card
- Am I at Risk for a Fall? rack card
- Falls prevention display

A communication campaign including media releases, newspaper ads, displays at community events and presentations was carried out in 2012. Work has begun on how to address hazards for falls in the built environment.

We are planning further fall prevention activities and hope to work with our community partners to implement a multi-faceted fall prevention program for independent older adults at risk of falling. We are also working to better understand why rates of emergency visits for falls are so much higher here than in Ontario as a whole.

Notes

The 2009 baseline was calculated using interim ambulatory care data. The final data indicate that the baseline is actually 8,437 visits per 100,000 adults age 65+. The actual number of visits in 2009 was 1,482, in a population of 17,566 seniors.

References

1 Ontario Ministry of Health and Long-Term Care. Ontario Public Health Standards, Prevention of Injury and Substance Misuse

2 Ontario Ministry of Health and Long-Term Care. Public Health Division and Health Promotion Division. Technical Document: Public Health Accountability Agreement Indicators 2011 – 2013. January 17, 2012 Version 3.

3 **RC&D baseline and target** - Letter from Ministry of Health and Long-Term Care to Medical Officer of Health, Renfrew County and District Health Unit re: Performance Targets for the 2011 – 2013 Public Health Accountability Agreement Indicators. Appendix A: Response to Renfrew County and District Board of Health Targets. May 9, 2012. **Ontario rate** - intelliHealth Ontario, Pre-defined report “Fall-Related Emergency Visits 65+”, extracted September 12, 2012.

4 Renfrew County and District Health Unit. Unintentional Injuries in Renfrew County and District. Community Health Status Report #16, 2009.

5 Schnarch B. Champlain Local Health Integration Network. Profile of the people of Renfrew County and the hospitals that serve them. Presented to Pembroke Regional Hospital Board of Directors October 28, 2011. Unpublished.

6 Statistics Canada. Canadian Community Health Survey. CANSIM table 105-0501.

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8 Petridou E, Manti E, Ntinapogias A, Negri E, Szczerbińska, K. What What Works Better for Community-Dwelling Older People at Risk to Fall? A Meta-Analysis of Multifactorial Versus Physical Exercise-Alone Interventions. *Journal of Aging and Health* 2009;21(5):713-729.

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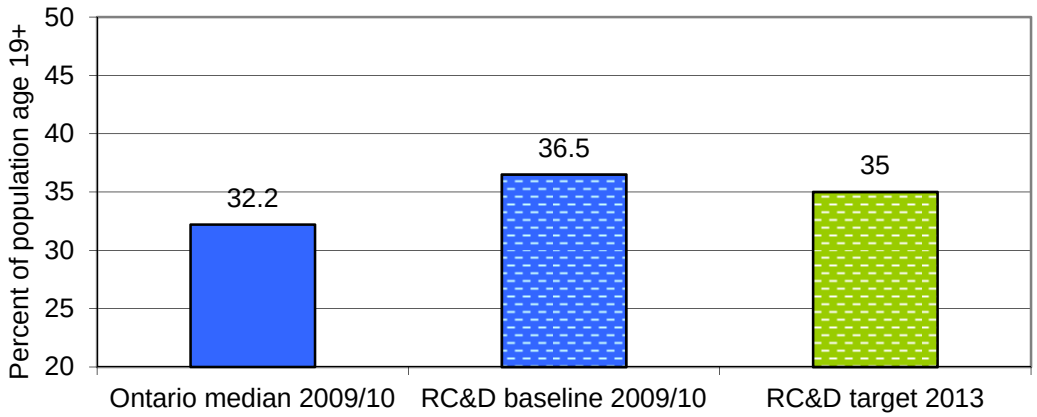
Percent of Population that Exceeds the Low Risk Drinking Guidelines

Performance indicator: Percent of the population (age 19 and over) who reported consuming alcohol at levels that exceed Canada's Low-Risk Alcohol Drinking Guidelines (Guidelines 1 and 2).

Alcohol misuse is associated with many chronic diseases and conditions and its consequences are a significant burden on the health care system. Canada's Low-Risk Alcohol Drinking Guidelines were introduced in 2011 to encourage Canadians to moderate their alcohol consumption and reduce immediate and long-term alcohol-related harm.

The *Chronic Disease Prevention* [1] and *Prevention of Injury and Substance Misuse* [2] standards require boards of health to increase public awareness of the importance of reduced alcohol use and the risk, protective, and resiliency factors associated with substance misuse, and; increase the public's capacity to prevent substance misuse and associated harms. This indicator reflects public health efforts to influence the awareness and behaviour of people who consume alcohol. [3]

Percent of Adults Who Reported Consuming Alcohol at Levels Exceeding Low-Risk Alcohol Drinking Guidelines Baseline and Target



RC&D = Renfrew County and District
Source: See reference 4

- The percent of adults in Renfrew County and District (RC&D) who reported consuming alcohol at levels exceeding the Low-Risk Alcohol Drinking Guidelines at baseline was 36.5 percent. Of the 36 health units in Ontario, our baseline is the highest.
- The 2013 target for RC&D is a decrease of four percent relative to the baseline. (36.5% x .04 = 1.46 rounded to 1.5. 36.5% - 1.5 = 35%.)
- Heavy drinking (five or more drinks on one occasion at least once a month during the past 12 months) is another measure of excess alcohol consumption. The proportion of the population that participated in heavy drinking episodes was significantly higher in RC&D than in Ontario as a whole in 2009/10 (20.3% vs. 16%). Differences between RC&D and the province were not statistically significant in 2007/8, 2005 and 2003. Heavy drinking is more prevalent among males than females. In RC&D 32% of males and 9% of females reported heavy drinking episodes in 2009/10. [5]

Guidance on Improving Performance

It is well known that comprehensive approaches are required to address substance misuse. The *Prevention of Substance Misuse Guidance Document* [6] emphasizes that local health units and community partners should advocate for the continuation and strengthening of laws and policies that create a culture of moderation in relation to alcohol use. These include:

- Taxation/price increases
- Increase in minimum drinking age
- Zero tolerance for drinking and driving
- Requirements for/enforcement of responsible beverage service programs

- A social responsibility frame of reference for the operation and governance of liquor control boards (social responsibility refers to balancing the need to make a profit with the need to support the well-being of society)

Recommended programs that can be implemented locally are municipal alcohol policies, safer bars programs, workplace alcohol policies and brief interventions by health professionals. Local health units can facilitate and support these initiatives.

A theme in the *Guidance Document* is the identification of youth age 12 to 24 as a priority population, and high-risk vulnerable youth as a priority population requiring specific attention. Efforts should focus on influencing underlying causes of alcohol misuse by supporting youth to develop emotional well-being and resiliency. School, community, parenting and treatment programs can help youth develop competencies such as self-confidence, meaningful connections with people in the community, moral commitment, and caring and compassion. These are protective factors that decrease the risk of substance misuse.

Actions to Improve Performance

Recent activities include:

- Increasing capacity of partners to address alcohol misuse through sharing information and providing presentations and a display about the Low Risk Alcohol Drinking Guidelines
- Using a youth engagement approach to build resiliency among youth
- Supporting Ontario Students Against Impaired Driving (OSAID) groups and safer grad events
- With community partners, providing interactive educational events in high schools and community college to increase awareness of risks related to substance use and driving
- Encouraging and supporting safer bars practices
- Encouraging and supporting the development of workplace alcohol policies
- Participating in the Renfrew County Substance Abuse Coalition

In 2013 we are developing plans to increase focus on this health issue.

Notes

Estimates of the percent of adults consuming alcohol at levels exceeding the Low Risk Alcohol Drinking Guidelines are based on Statistics Canada's Canadian Community Health Survey. 2012 data from the survey will be monitored but the 2013 target will be assessed using combined 2012 and 2013 data. Combining two years of data provides a more reliable estimate. [3]

Health units will be considered to have met targets if the confidence interval of the 2013 value includes the 2013 target. [4] A confidence interval is a range within which the parameter that is being estimated (e.g. percent of adults consuming alcohol at levels above current guidelines) is likely to actually fall.

References

1 Ontario Ministry of Health and Long-Term Care. Ontario Public Health Standards, Chronic Disease Prevention

2 Ontario Ministry of Health and Long-Term Care. Ontario Public Health Standards, Prevention of Injury and Substance Misuse

3 Ontario Ministry of Health and Long-Term Care. Public Health Division and Health Promotion Division. Technical Document: Public Health Accountability Agreement Indicators 2011 – 2013. January 17, 2012 Version 3, page 41.

4 Letter from Ministry of Health and Long-Term Care to Medical Officer of Health, Renfrew County and District Health Unit re: Performance Targets for the 2011 – 2013 Public Health Accountability Agreement Indicators. Appendix A: Response to Renfrew County and District Board of Health Targets. May 9, 2012.

5 Renfrew County and District Health Unit. Quick Health Statistics: Heavy Drinking Episodes in Renfrew County and District, 2011.

6 Ontario Ministry of Health Promotion. Standards, Programs and Community Development Branch. Prevention of Substance Misuse Guidance Document, May 2010.