

Influenza Vaccination: Community Response

Issue 1, September 2001

- # Influenza vaccination rates increase dramatically in our community.
- # Public awareness of free flu vaccines reaches 89%.
- # Over 85% of seniors vaccinated.
- # Majority vaccinated by their doctors.

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Background

Universal influenza programs in the past have primarily focused on those considered at risk for serious health problems from influenza and to a lesser extent on those who put others at risk by having regular or close contact with them. In July 2000, the Ministry of Health and Long Term Care (MHLTC) announced a new influenza vaccination program to be available at no charge for all Ontario residents. Flu vaccines were provided at various locations throughout London and Middlesex County including physician offices, clinics sponsored by the Middlesex-London Health

Unit, some work places and other locations such as pharmacies, hospitals and community health centres.

Dramatic increase in the flu vaccine coverage rates in our community

Immunization targets were set at 90% coverage for high priority groups and 60% for the general population. The high priority group consists of both those considered at high risk for getting the flu and those who put others at risk of getting the flu whereas individuals in the low priority group come from the remainder of the population. Prior to the free Universal Influenza Vaccination Program, the coverage rate in the Middlesex area was 62.2% (∓6.0%) for those 65 years and over and 10.5% (∓1.6%) for those age 18-64 (Ontario Health Survey 1996/97, MHLTC).

Overview of Results

This issue of "The Health Index" highlights the findings on flu vaccine coverage levels after the 2000/01 season as well as the

public awareness and media reach to the free Universal Influenza Vaccination Program in London and Middlesex County. A random telephone survey of 385 respondents was conducted between January 15 and May 1, 2001. This revealed dramatic increases in the flu vaccine coverage rate in our community from the levels in 1996/97. The highest coverage rate was achieved in those aged 65 and older. Target groups such as those who put others at risk, those under age 65 with chronic disease had lower coverage rates. Attention was given to workers in an effort to provide baseline information for the 2001/02 campaign.

The Health Unit delivered over 12,800 flu vaccines. However the majority of people got their vaccines through their doctor.

While the vast majority of the population was aware of the campaign, over half of the population continues to express concern about the possible long-term negative effects of the flu vaccine for children. In addition, over one-fifth of those who did not get the shot reported that the main reason they did not get the shot was due to concerns about side effects. Most people who got the flu vaccine did so as a preventative measure to avoid getting sick. However, nearly a third of those who did not get the shot felt that it was not a preventative measure that they needed. Although the Health Unit delivered over 12,800 flu vaccines, the majority of people received the flu vaccine through their doctor.

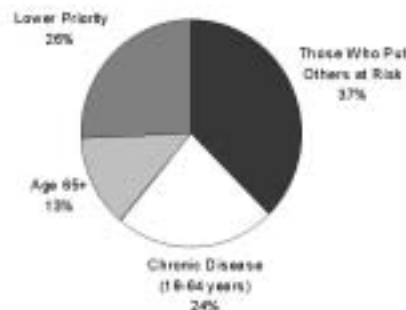
Flu Vaccine Coverage Rates

Overall, 40.5% (±3.9%) of the total adult population aged 18 and over in London and Middlesex County reported having a flu vaccine in 2000/01. The total population can be divided into priority groups as in

Figure 1. Those age 65 and over are the smallest proportion of the total population target groups whereas those who put others at risk are the largest group.

Figure 1: Total Population by Priority Sub-Group

Middlesex-London Health Unit, 2001



Source: RRFSS 2001, Waves 3-4

Among the **high priority groups** there was an overall coverage rate of 48% (±7.0%). Within the high priority groups, the highest coverage rates occurred in those considered to be at high risk of getting the flu while a lower rate occurred for those who put others at risk of getting influenza.

Given its proportional size, an improvement in the coverage rate of this latter group would have a large impact on the overall high priority flu coverage rate.

A full 86.3% (±9.4%) of those aged 65 and over reported being vaccinated (Figure 2).

Vast majority of seniors vaccinated

A significantly lower rate of 47.4% (±7.9) was found in those who put others at risk of getting influenza. A similar rate of 41.7% (±10.5%) was found in those under age 65 who reported having a chronic disease. Overall the **low priority group** reported a coverage rate of 22.5% (±9.2%). Although this rate was significantly lower than the

high priority group it is important to consider that this was the first year this group was offered free flu vaccines. This rate represented a significant behavioral change from an estimated coverage rate of 10% based on the 18-64 year old rate reported in the OHS 1996/97. Nevertheless, both the high and low priority groups were below their target coverage rates of 90% and 60% respectively established by the Ministry of Health and Long Term Care for the first year of the immunization campaign.

Figure 2: Flu Shot Coverage Rate by Priority Group

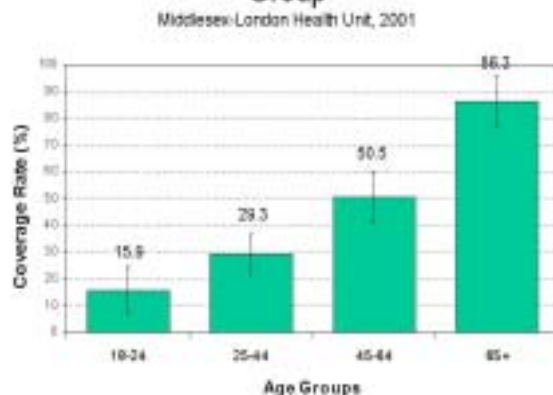


Source: RRFSS 2001, Waves 1-4

Flu vaccine coverage rates increased with age starting at 15.9% (±8.6 %) in the 18-24 years age category, increasing to 86.3% (±9.4%) in the 65 and over age category (Figure 3). This represents a significant increase in the coverage rates from those recorded in 1996/97 for the Middlesex area. At that time, the coverage rate was 62.2% (±6.0%) for those 65 and over and 10.5% (±1.6%) for those age 18-64. (Ontario Health Survey 1996/97, MHLTC). Although not significant, immunization rates were higher in females (44.2% ± 6.8%) relative to males (36% ± 7.1%).

Coverage rates for those employed for wages (30.9% ± 6.34) appeared to be greater than for those who were self-

Figure 3: Flu Shot Coverage Rate by Age Group



Source: RRFSS 2001, Waves 1-4

employed (21.4% ± 15.19) which in turn appear higher than the student rate (16.7% ± 11.28). Higher levels of coverage were reported by those who were unemployed (56.3% ± 17.2) whereas the highest coverage rates were reported for retirees (80.6% ± 9.5). Future surveys with larger samples will be needed to determine if these categorical differences are a function of age in the various groups or truly a result of employment status.

Focus on workplace will reach the groups with lower coverage rates in London-Middlesex

The Ministry of Health and Long-Term Care's 2001/02 initiative to focus on workplace clinics will likely serve to target some of the groups with lower coverage rates in London-Middlesex, including those in younger age groups.

There was no statistically significant difference in the vaccination rate for those 18-44 years old with children in their household aged 17 or younger (28.7% ± 8.3) than those without (21.6% ± 7.7). Finally, past vaccination practices were analyzed as a proxy measure to determine whether those receiving flu vaccines might be more

inclined to demonstrate health promoting behaviour. No significant relationship was found in the flu vaccination rates between persons who received a tetanus shot in the last ten years (39.6% \pm 5.8) and those who did not (40.6% \pm 9.8).

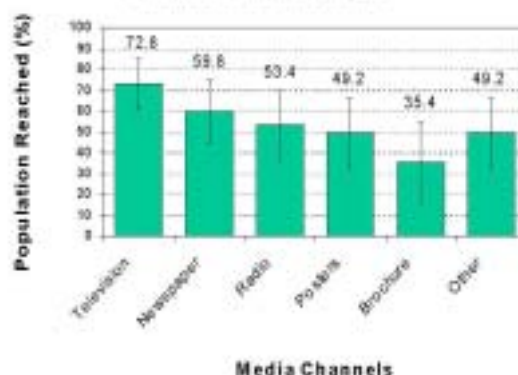
Public Awareness & Media Reach

Much effort was made to promote public awareness of the universal flu campaign in a very short period of time. From the standpoint of reaching the public and creating awareness, the promotional campaign was a success. Of those questioned, 88.5% (\pm 3.6%) reported having read or heard something about the universal influenza program. This high level of awareness was consistent across major groupings including: priority groups, age, sex, employment status, flu vaccine coverage and the presence of children aged 17 or younger in the household.

Remarkably high levels of public awareness of the free universal influenza program were achieved

Most people heard about the free flu vaccines from television (72.8% \pm 6.2%) (Figure 4). Television commercials were primarily used by the MHLTC to announce the campaign and discuss the safety of the influenza vaccine. Television reached a greater proportion of people than did radio (53.4% \pm 8.1%), posters (49.2% \pm 8.5%), or brochures (35.4% \pm 9.6%). Newspapers were identified by 59.8% (\pm 7.6%) of respondents as a source of influenza information, a proportion that was not significantly different from television, radio or posters. Brochures appear to have reached the smallest proportion of the population as they were reported to be a source of information by only 35.4% (\pm 9.6%) of respondents. Doctor's offices were identified as the location where the

Figure 4: Proportion of Population Reached by Media Channel
Middlesex-London Health Unit, 2001



Source: RFPSS 2001, Waves 1-4

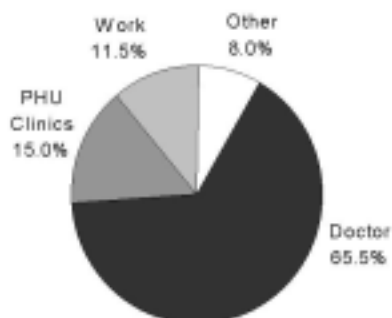
poster or brochure was most often noticed.

Despite the varying recognition of different promotional tools, no significant difference was found in their effectiveness. All media channels appear to have produced similar outcomes in encouraging public participation in the campaign. Results ranged from 35.3% (\pm 8.1%) flu vaccine compliance for respondents learning about the campaign from radio, to 47.8% (\pm 10.3%) compliance for those who read about it in brochures.

Delivery of the Flu Vaccine

When the flu campaign began in October 2000, free flu vaccine was made available through physicians to those in the high priority groups. Public health unit clinics commenced in November when the flu vaccine became available to low priority individuals. The majority of respondents got their flu vaccine from their doctor (65.5% \pm 8.8%)(Figure 5). A smaller proportion of people received their flu vaccine at a public health unit clinic (15% \pm 6.6%), at work (11.5% \pm 5.9%), or some other location (8% \pm 5%).

Figure 5: Flu Shot Delivery by Location
Middlesex-London Health Unit, 2001



Source: RRFSS 2001, Waves 1-4

A similar pattern existed among many subgroups. Within the high priority group, 71.9% (±9%) received their flu vaccine from a doctor. Nearly all of those who were retired received their flu vaccine from a doctor (97.4% (±5.1%) while a significantly lower proportion of those who were employed at the time of the survey reported getting their flu vaccine from a doctor (40.4% (±13.3%). Those respondents living in London preferred to visit their doctor to receive their flu vaccine, whereas respondents in the remainder of Middlesex County showed no significant preference.

Doctors were major players in the delivery of flu vaccines

One interesting relationship existed between age and location of flu vaccine. As expected, seniors aged 65 and over were significantly more likely (96.8% (±6.2%)) to receive their flu vaccine from their doctor than the other age groups. Conversely, young adults aged 18-24 were significantly more likely (83.3% (±29.8%)) than other ages to receive their flu vaccine at a clinic sponsored by the public health unit, including those held in schools. Finally, those in the age categories between 25-64 were significantly more likely to receive their flu vaccines at work than were those at

either end of the age spectrum. For those aged 25-44 13.2% (±10.8%) received their flu vaccines at work while 21.1% (±13%) of those aged 45-64 received their flu vaccine at work.

Of those who obtained a flu vaccine, the vast majority found it very easy to get to the flu vaccine location (85 (±6.9%). This same general trend was observed across high and low priority groupings, age categories and employment status. Within the 25-44 year age group, those without children (100%) deemed access to the flu vaccine “very easy” more frequently than those with children (80% (±17.5%).

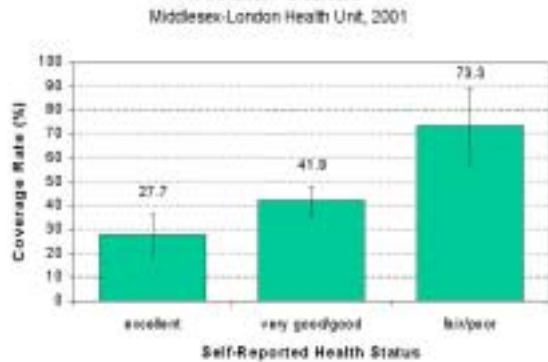
Motivation & Barriers

Of those people who received a flu vaccine, 57.3% (±9.1) reported that they did so as a preventative measure to avoid getting sick. An additional 13.8% (±6.4) said that a doctor or health professional recommended that they get the flu vaccine. Only 4.6% (±3.9) received the flu vaccine as a requirement of their work. This did not vary widely by employment status, priority or age grouping. However, significantly more males (73.9% (±12.7) reported getting the flu vaccine as a preventative measure as compared to females (44.9% (±11.7)).

An individual’s perceived need to prevent flu can be a strong motivator or barrier to getting a flu vaccine

Interestingly, a significantly greater proportion of those reporting fair or poor health 73.3% (±15.8) got a flu vaccine as compared to those reporting excellent health 27.7% (±8.7) (Figure 6). Although self-reported health is likely influenced by age, it would appear that those with poorer health were more motivated to get a flu vaccine.

Figure 6: Flu Shot Coverage Rate by Health Status



Source: RRFSS 2001, Waves 1-4

The most frequently reported reason for not getting a flu vaccine was that the respondent did not see a need for it (38.4% \pm 7.4%). By comparison, a significantly lower proportion (22.5% \pm 6.4%) stated that a general concern about the negative side effects was their main reason for not getting the flu vaccine. Reasons for not getting the flu vaccine did not vary widely by priority group, sex, employment status or age group.

Children and Flu Vaccines

One logical location to target children for the flu vaccine would be at school. The majority of respondents (63.9% \pm 5.4%) were in favour of the idea of providing flu vaccines to children during school hours with their parent's permission. When only those respondents aged 18-44 years old with children at home were considered, the proportion in favour of offering the shots in school was 64.0% (\pm 10.1%). When those parents' opinions are compared by their own flu vaccine behaviour it appeared that a greater, although not significant, proportion of parents that got the flu vaccine were in favour of having children receive the flu vaccine at school (73.9% \pm 17.9) as

compared to those that did not get a flu vaccine (55.0 \pm 21.8%).

Public concerned about the long-term effects of the flu vaccine

Respondents revealed some general concern regarding the administration of flu vaccines to children. When asked how concerned they were about the possible long-term negative effects of the flu vaccine for children, half of respondents indicated that they were somewhat or very concerned (54.5% \pm 5.7%) There was also a relatively large number of respondents (14.7% \pm 4.1%) who indicated that they "did not know" how concerned they were. The concern regarding childhood flu vaccines did not differ significantly by gender, flu coverage, priority grouping or, for 18-44 year olds, whether the respondent did or did not have children aged 17 or younger.

Methods and Definitions

All data are from the Rapid Risk Factor Surveillance System (RRFSS), conducted for the Middlesex-London Health Unit (MLHU) by the Institute for Social Research, York University. Data were collected in a series of four waves of monthly telephone surveys. Households were selected randomly from all households with telephones in Middlesex-London and respondents aged 18 and older were randomly selected from within each household. The sample was weighted to account for each respondent's probability of being selected within households of different sizes.

The sample consisted of 385 respondents from London and Middlesex County surveyed between January 15 and May 1, 2001. All four waves included those who were asked if they had received a flu vaccine since September 2000. An

expanded flu vaccine module was introduced in Wave 2 that included questions related to priority status, immunization awareness, vaccination delivery and opinions about flu vaccinations. A total of 278 respondents answered these additional questions. Those who did not respond were excluded prior to calculating proportions. Differences in proportions were considered statistically significant at $p < 0.05$. All proportions were provided with 95% confidence intervals.

The **high priority** group consisted of both those considered at **high risk** for getting the flu and **those who put others at risk** of getting the flu. The **high risk** group was defined as individuals aged 65 and older as

well as those individuals at any age who reported having a chronic disease including heart, lung or kidney disease, cancer, diabetes, as well as blood disorders or a weakened immune system. **Those who put others at risk** included individuals who live or regularly visit someone considered high risk as well as emergency service workers and health care volunteers and employees. Other high priority groups who could not be identified in RRFSS included those aged 6 months to 18 years who are taking acetylsalicylic acid (ASA) for long periods and anyone who lives in a nursing home, chronic care facility or retirement home. The **low priority** group consisted of the remaining members of the general population excluding the high priority individuals.

Contacts

Authors: Gordon Bargh, M.Sc. (Candidate), Department of Epidemiology and Biostatistics, The University of Western Ontario
Ruth Sanderson, M.Sc., Health Unit Epidemiologist

Contact: Ruth Sanderson, Health Unit Epidemiologist
Research, Education, Evaluation and Development (REED) Services
Middlesex, London Health Unit
50 King Street, London, ON, N6A 5L7
phone: (519) 663-5317 ext. 2481
email: ruth.sanderson@mlhu.on.ca

This report is also available at: www.healthunit.com

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