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# British Columbia's Interior Health Authority's Usage of the Ontario Central LHIN Anti-stigma Training Program

*An independent evaluation by Opening Minds*

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# 1   OPENING MINDS: CHANGING HOW WE SEE MENTAL ILLNESS

As part of its 10-year mandate, The Mental Health Commission of Canada (MHCC) has embarked on an anti-stigma initiative called Opening Minds (OM) to change the attitudes and behaviours of Canadians towards people with a mental illness. OM is the largest systematic effort undertaken in Canadian history to reduce the stigma and discrimination associated with mental illness. OM is taking a targeted approach, initially reaching out to healthcare providers, youth, the workforce, and media. OM's philosophy is not to reinvent the wheel, but rather to build on the strengths of existing programs from across the county. As a result, OM has actively sought out such programs, few of which have been scientifically evaluated for their effectiveness. Now partnering with over 60 organizations, OM is conducting evaluations of the programs to determine their success at reducing stigma. OM's goal is to replicate effective programs nationally. A key component of programs being evaluated is contact-based educational sessions, where target audiences hear personal stories from and interact with individuals who have recovered or are successfully managing their mental illness. The success of contact-based anti-stigma interventions has been generally supported throughout international studies as a promising practice to reduce stigma. Over time, OM will add other target groups.

## 2    BACKGROUND

The Castlegar and District Health Centre, which is part of the Interior Health Authority of British Columbia, responded to a Request for Interest (RFI) issued by Opening Minds in the spring of 2009. OM was looking for existing programs aimed at reducing stigma among its initial target groups of healthcare providers or youth. The Interior Health Authority did not have an existing anti-stigma program, but key staff had become aware of the need for one in its hospital and healthcare settings in the area, and offered their locations as test sites if an anti-stigma program could be identified.

The Ontario Central Local Health Integration Network (LHIN) also responded to the RFI. It had created and delivered a promising anti-stigma training program and helped make arrangements for OM to evaluate its effectiveness at reducing stigma in the winter of 2010. The program was delivered to healthcare workers in hospital and clinic locations north of Toronto, and upon completion of the evaluation, proved to be successful at reducing stigma. In responding to OM's request, the Central LHIN was willing to share its curriculum and materials with other organizations in Canada. As a result, B.C.'s Interior Health Authority made arrangements to deliver this program at hospitals and healthcare facilities in seven communities in the central and south eastern region of British Columbia.

The program itself included a PowerPoint presentation, several activities to engage participants and help them begin to think of their attitudes towards mental illness, as well as a particular type of education called contact-based education, which has been shown internationally to be successful at reducing stigma. Contact-based education involves an individual with a mental illness sharing his/her personal story with the audience and then answering questions.

The program in B.C. was arranged and delivered by Cheryl Whittleton, RN BSN, from Castlegar during the fall of 2010. To provide contact-based education to participants, Cheryl worked with a woman from Penticton who has a mental illness and was willing to tell her personal story. The two of them traveled to all identified locations. The training sessions were approximately 1.5 hours in length, and targeted multidisciplinary healthcare teams working within the emergency and acute departments, including nursing staff and physicians.

The goal was to educate 450 employees in the identified trial locations: Castlegar and District Health Center and Emergency Department (CDHC), Kelowna General Hospital (KGH), Penticton Regional Hospital (PRH), Cranbrook Regional Hospital (EKRH), Shuswap Lake General Hospital (SLGH), Cariboo Memorial Hospital (CMH), and Kamloops Royal Inland Hospital (RIH). The selection of emergency departments for this pilot was based on the desire to have a cross section of facilities that represented Interior Health's wide geographic area and also included representation from larger tertiary sites and smaller community health centres.

Among the participants who received the program, the largest numbers were from Cranbrook (30%) and Kamloops (23%) followed by Kelowna (15%), Castlegar (11%), Penticton (8%) Williams Lake (7%) and Salmon Arm (6%).

# 3    METHODOLOGY OF EVALUATION

Participants were asked to complete a short survey before their training session began and a post survey when the session was complete. The survey included 19 questions which were measured with a 5-point Likert scale pertaining to attitudes towards people with mental illness. Six additional questions measured attitudes towards recovering from mental illness, and another three questions compared stigma related to mental health/illness in comparison to stigma related to diabetes. Type II Diabetes is a chronic physical condition which healthcare providers (HCPs) are taught may be partially controlled and even preventable by changes in lifestyle. There is a common perception among healthcare providers that mental illness can also be prevented by lifestyle changes, thus comparable to lack of self-control among people with diabetes.

To create scale scores, items were summed across all surveys having complete data. The pre/post-test Chronbach's alpha for the 19 questions about attitudes toward mental illness were good (0.84 and 0.81 respectively) indicating a sound level of reliability in the psychometric test score for the sample of respondents that completed the survey. A paired t-test was used to analyze mean scores. A low score for the attitude scale indicated less stigma. A McNemar-Bowker exact test of symmetry was used to analyze the categorical item by item scores. For the latter analysis, the original five Likert responses were recorded into three categories (strongly agree and agree, unsure, strongly disagree and disagree). A threshold was created to measure success, defined as, the proportion of respondents who obtained 80% or more correct (non-stigmatizing) answers on the post-test who had been below this threshold on the pre-test (see Figure 1). For those who moved across the threshold, the majority (at least 80%) of their answers were non-stigmatizing.

# 4    RESULTS

## 4.1    Demographic
The workshop was delivered to a total of 190 participants within Interior Health, of which 97% (185) responded to the initial baseline survey (pre-test) and 81% (155) on the 2nd survey (post-test). The majority of respondents were female (87%) and were registered nurses (77%). The remaining respondents were either nursing students or social workers. Respondents ranged in age from 22 to 62 years, with the mean age of 38.7 years. The majority reported knowing a family member or close friend with a mental illness (91%) and of these, 42% respondents indicated knowing someone close with a mood disorder (such as depression, bipolar disorder, mania, or dysthymia), 10% knew someone close with an anxiety disorder (such as phobia, obsessive-compulsive disorder, or panic disorder), and another 46% of respondents indicated they knew a family member or close family friends with more than one type of mental illness.

**Table 1. Demographic characteristics of respondents**

| Demographic variables (pre-test) | % (number of respondents = 185) | |
|---|---|---|
| Sex | Female | 87% |
| | Male | 13% |
| Age | Mean | 39.1 |
| | Min/max | 23 to 62 |
| Has been treated for a mental illness | Yes | 21.2% |
| | No | 78.8% |
| Knows a family or friend who had a mental illness | Yes | 91.5% |
| | No | 8.5% |
| If so, what kind of mental illness do they have? | Mood disorder | 43.7% |
| | Anxiety disorder | 10.6% |
| | Psychotic disorder | 2.0% |
| | More than one of the above | 43.7% |

## 4.2    Evaluation Results

### 4.2.1    *Baseline*

Results showed that the mean of a few questions on the baseline pre-test survey demonstrated an already low level of stigma, perhaps demonstrating a ceiling effect. Therefore, an intervention would not likely decrease the level of stigma any lower than the already low level of stigma. Items in this group with low pre-test item means related to social distance and the social responsibility and role of healthcare providers (HCPs). In contrast, pre-test means for items relating to self-stigma demonstrated the highest level of stigma, and therefore held the highest possible range for post-intervention changes.

### 4.2.2    *Overall change*

Comparison of the overall pre and post total score showed there was a statistically significant overall change in attitudes about mental illness. The overall positive changes reflected by the questionnaire showed the level of stigma significantly differed between the pre- and post-intervention (see Table 2).

**Table 2. Mean Scale Score, Pre and Post**

| | Pre-test mean (95% CI) | Post-test mean (95% CI) | Change | Test for difference between pre- & post-test[2] |
|---|---|---|---|---|
| Total scale score[1] | 41.5 (40.2-42.8) | 39.1 (37.9-40.2) | 2.3 | p<0.001 |

[1]Sum of 19 items (range 19 to 95); [2]ttest of change score ($H_o$: change score=0)

In addition, on the pre-test, 43% of ER staff had non-stigmatizing (correct) responses to at least 80% of the 19 survey items (see Figure 1). On the post-test, 65% of ER staff had non-stigmatizing (correct) responses to at least 80% of the 19 survey items.

**Figure 1. Cumulative Percentage of Items Reflecting Non-stigmatizing responses (n=185)**
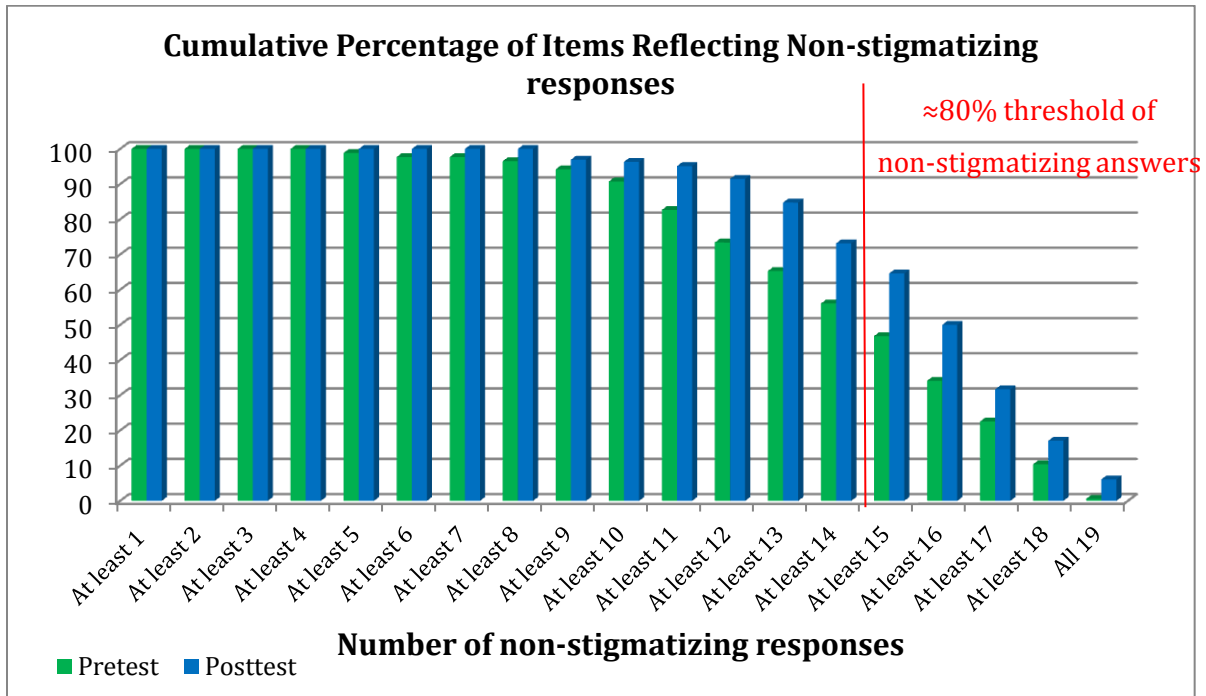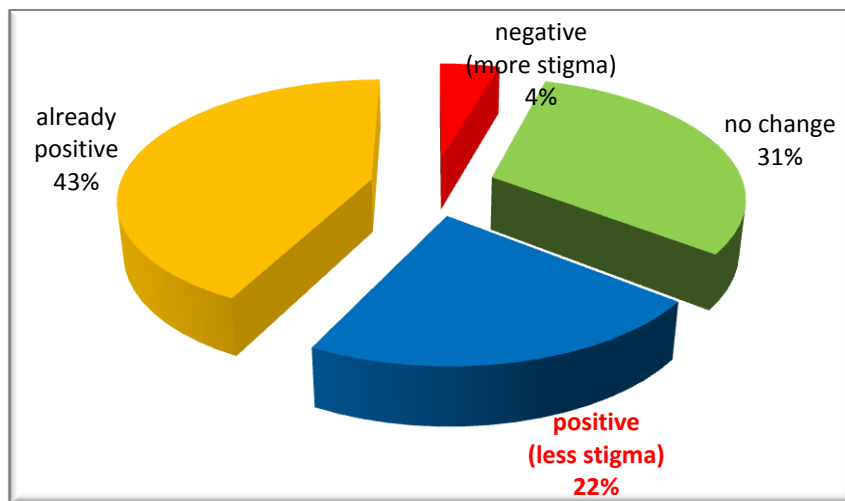


Figure 2 shows that overall, after the workshop, 22% of respondents who provided 80% or more correct (non-stigmatizing) answers on the post-test were below this threshold on the pre-test.

**Figure 2. Change in proportion of people who <u>crossed threshold</u> of success***



\* Actual threshold was 78.9% or 15 /19 correct answers

### 4.2.2.1 *Overall change by location*

The drop in stigma score was homogeneous across all but two locations (see Figure 3) in which the intervention had no impact on post-test scores. Further investigation is required to understand why the response was different for these two sites. In order to maintain anonymity and protect the privacy of the participants, a specific description of the audiences and workshops at specific locations will not be described on this report.

**Figure 3. Pre & post survey scores, by location**
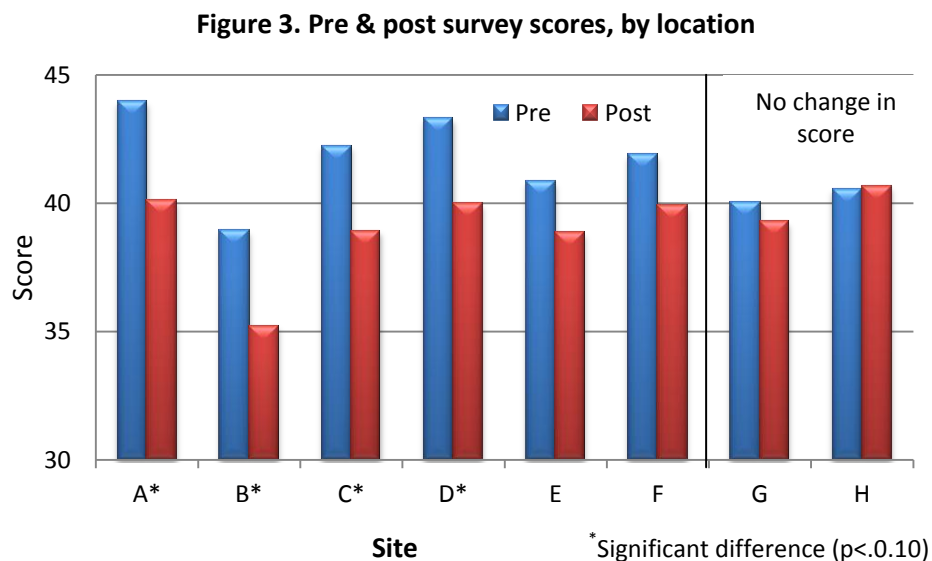


Due to specific situational processes at site "G", a secondary analysis was conducted on the overall change score by removing this specific location from the study sample and recalculating the total score. With the removal of location G, the change score increased from 2.3 to 3.0, reflecting more change.

**Table 3. Mean Scale Score, Pre and Post (without location G)** [1]

| | Pre-test mean (95% CI) | Post-test mean (95% CI) | Change | Test for difference between pre- & post-test[2] |
|---|---|---|---|---|
| Total scale score, without location X[1] | 42.0 (40.5-43.5) | 39.0 (37.7-40.3) | 3.0 | p<0.0001 |

[1]Sum of 19 items (range 19 to 95); [2]ttest of change score (H$_o$: change score=0)

### 4.2.3 *Changes by individual survey items*

There was an overall reduction in the level of stigma reported by respondents after the workshop. As expected, responses with already low baseline levels of stigma did not change. According to the McNamar-Bowker exact symmetry test, used to evaluate individual item changes, 10 of 19 items significant showed pre/post differences.

### 4.2.3.1 *Survey items showing significant reduction in stigma*

As expected, the greatest reduction in stigma was observed in items with the highest level (mean above 2.5) of stigma on the pre-test survey. Items in this group related to social responsibility and role of HCP, disclosure, self-stigma, prejudice, and devaluation. The questions were:

>
> ### *Social responsibility and role of HCP*
> > I feel as comfortable helping a person who has a mental illness as I do helping a person who has a physical illness.
>
> ### *Disclosure*
> > I would not disclose to my colleagues if I was currently being treated for a mental illness.
>
> ### *Self-stigma*
> > I would see myself as weak if I had a mental illness and could not fix it myself.
>
> ### *Prejudice and devaluation*
> > People with mental illness seldom pose a risk to the public.

Interestingly, another item which had a lower stigmatizing response (score below 2.0) in the pre-test became even less stigmatizing after the intervention.

>
> ### *Social distance*
> > I would not mind if a person with a mental illness lived next door to me.

Other items showing a significantly lower stigma level after the intervention were:

- I would not want a person with a managed mental illness to work with children (social distance)
- There is little I can do to help people with mental illness (social responsibility and the role of HCP)
- It is a responsibility of healthcare providers to inspire hope in people with mental illness (social responsibility and the role of HCP)

It should be noted that the differences between pre- and post-test surveys reflected both negative and positive changes in the level of stigma; however, in every case, the overall difference resulted in a lower level of stigma. For example, 41.5% of respondents changed their response to the statement "People with mental illness seldom pose a risk to the public" (see Figure 4b). Of these, 8.5% of the respondent's answers became more stigmatizing and 33.0% became less stigmatizing (see Figure 4b). The difference between these figures shows overall after the workshop, 24.5% of respondents had less stigmatizing responses about risk to the public.

The 24.5% reduction in stigmatizing attitudes about whether people with mental illness pose a risk to the public may appear low however, the change is good considering on the pre-test, a large proportion
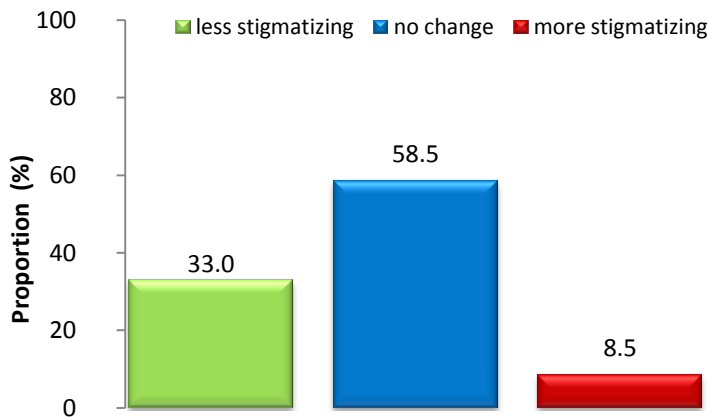
(55.5%) of respondents already held non-stigmatizing attitudes about if people with mental illness pose a risk to the public than (See Figure 4a).

**Figure 4a. People with mental illness seldom pose a risk to the public (Q15)**
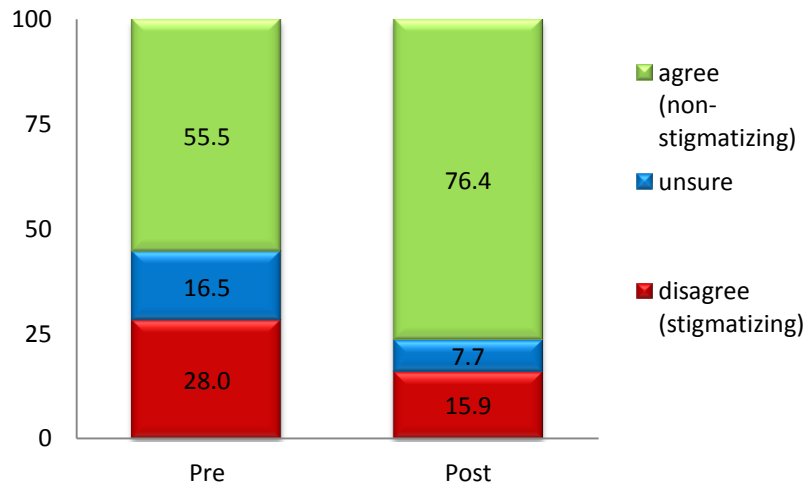


**Figure 4b. People with mental illness seldom pose a risk to the public, Direction of change in respondent's responses (%)**

The proportion of respondents that became less stigmatizing on the 20 questions are listed below:

**Proportions of respondents (%) that had significantly less stigmatizing responses after the workshop:**

| | | |
|---|---|---|
| ***Prejudice and devaluation*** | 24.5% | People with mental illness seldom pose a risk to the public. |
| ***Self-stigma*** | 18.4% | I would see myself as weak if I had a mental illness and could not fix it myself. |
| ***Disclosure*** | 15.1% | I would <u>not</u> disclose to my colleagues if I was currently being treated for a mental illness. |
| ***Social responsibility and role of HCP*** | 14.1% | There is little I can do to help people with mental illness. |
| | 12.3% | It is a responsibility of health care providers to inspire hope in people with mental illness. |
| | 11.1% | I feel as comfortable helping a person who has a mental illness as I do helping a person who has a physical illness. |
| ***Social distance*** | 10.1% | I would <u>not</u> mind if a person with a mental lived next door to me. |
| | 7.8% | I would <u>not</u> want a person with a managed mental illness to work with children. |

The corresponding Figures to the items listed above appear in the Appendix.

#### 4.2.3.2 *Survey items showing no change*

Items that did not change had much lower pre-test stigma scores, indicating the respondents already had lower level of stigma before the workshop. Questions in this group related to social distance and prejudice/devaluation. On the social distance items:

- 95% of respondents agreed employers should hire a person with a managed mental illness if he/she is the best person for the job
- 84.2% of respondents agreed they would still go to a physician if they knew that the physician had been treated for a mental illness

On the items related to prejudice/devaluation:

- 76.2% of respondents disagreed that if a person with a mental illness complains of physical symptoms (e.g., nausea, back pain, or headache) they would attribute this to their mental illness

- 90.8% of respondents indicated they do not struggle to feel compassion for a person with a mental illness
- 79.4% of respondents do not have negative reactions towards people who have mental illness
- 77.8% of respondents did not think that people with mental illness often don't try hard enough to get better

Perhaps unexpectedly, despite having lots of room to change, two items with higher pre-test scores, thereby demonstrating higher level of baseline stigma, did not change. These items related to self-stigma and disclosure. The item related to self-stigma was "I would be reluctant to seek help if I had a mental illness." At baseline, 61.6% of respondents thought they _would not_ be reluctant to seek help if they had a mental illness(non-stigmatizing), 20.5% of respondents agreed that they _would_ be reluctant to seek help if they had a mental illness (stigmatizing), and 17.8% were unsure (see Figure 5). Therefore in total, 38.3% (20.5% + 17.8%) of respondents could have changed their response to be non-stigmatizing but only 11% did.

**Figure 5. I would be reluctant to seek help if I had a mental illness**
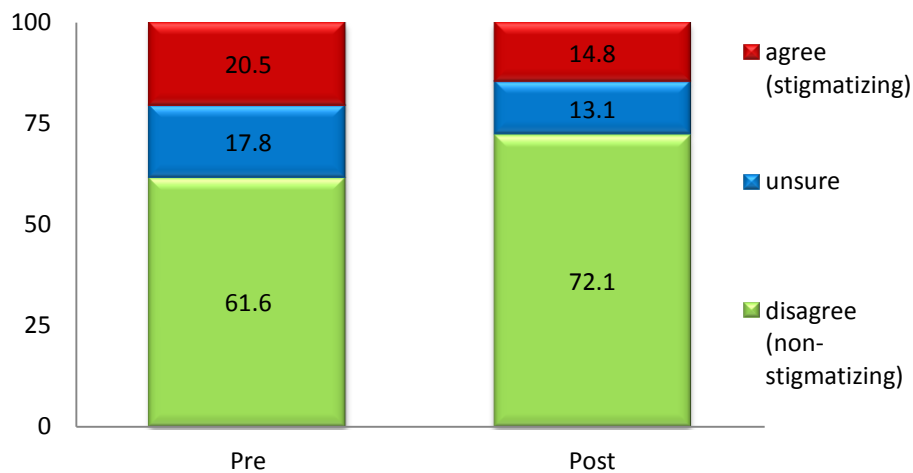


Similarly, very few people changed their response to the question about disclosure of mental illness to friends. Before the workshop, a large proportion of respondents were unsure (34.8%) or disagreed (17.9%) that they would tell their friends if they had a mental illness (see Figure 6). After the workshop these respondents could have changed their opinion but did not.

**Figure 6. If I had a mental illness, I would tell my friend**
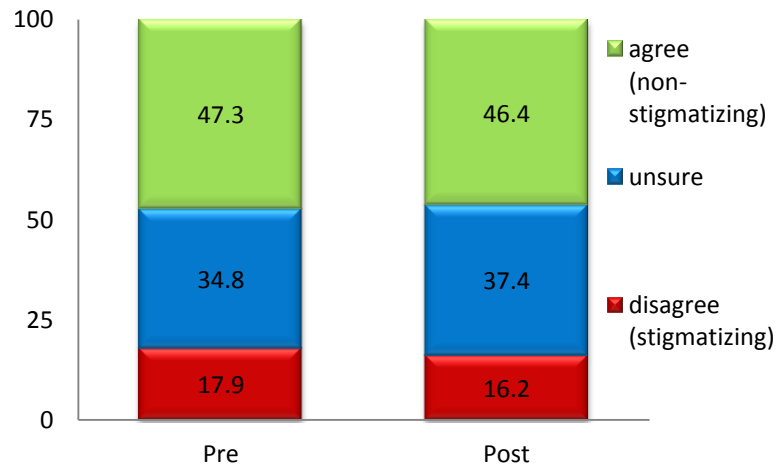


Personal beliefs relating to self-stigma and disclosure appear to be well entrenched and difficult to change. This becomes even clearer when the comparison is made to diabetes (see next section).

### 4.2.4    *Comparison of items about mental illness and diabetes*

Substantial differences between mental illness and diabetes were seen on items relating to disclosure and self-stigma (see Figures 7-9). For example, 61.6% of respondents disagreed that they would be reluctant to seek help if they had a mental illness; however, the majority (94.6%) of respondents disagreed that they would be reluctant to seek help if they had diabetes (see Figure 7). Fewer than 6% of respondents were reluctant or unsure if they would seek help for diabetes, whereas almost 40% of respondents felt the same about mental illness. Results for the comparison show the mental illness related self-stigma and disclosure items were higher than similar Type II diabetes items. Interestingly, these opinions also appeared to be deeply entrenched as responses to these same mental illness-related disclosure and self-stigma items did not become significantly less stigmatizing after the workshop (see section 4.2.2.2).

**Figure 7. I would be reluctant to seek help if I had Type II Diabetes / a Mental Illness**
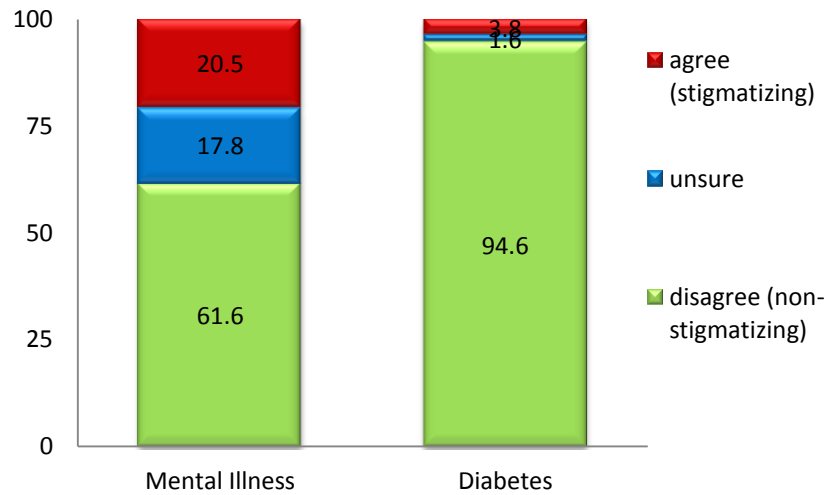


The compassion of disclosure related item showed that almost 40% of respondents would not disclose to colleagues if they had a mental illness, whereas only 12.4% felt the same about diabetes (see Figure 8).

**Figure 8. I would not disclose to my colleagues if I was currently being treated for Type II Diabetes / a Mental Illness**
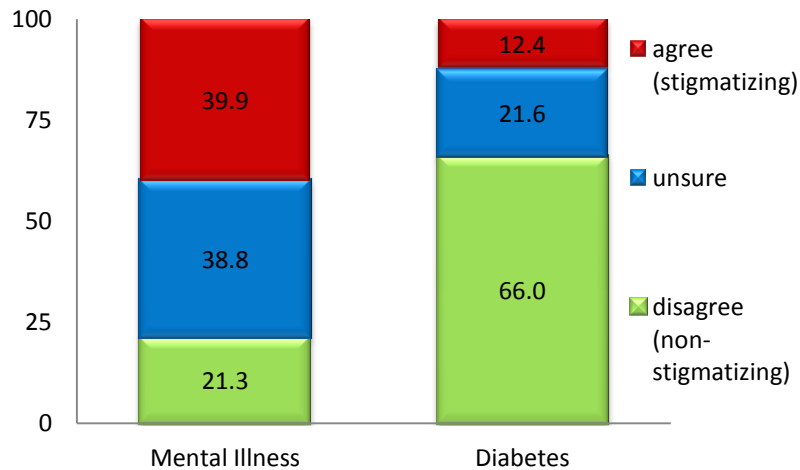


Only 22.9% of respondents said either they agreed or were unsure if they would see themselves as weak if they had Type II Diabetes, compared to 43.6% feeling the same about mental illness.

**Figure 9. I would see myself as weak if I had Type II Diabetes / a Mental Illness and could not fix it myself**
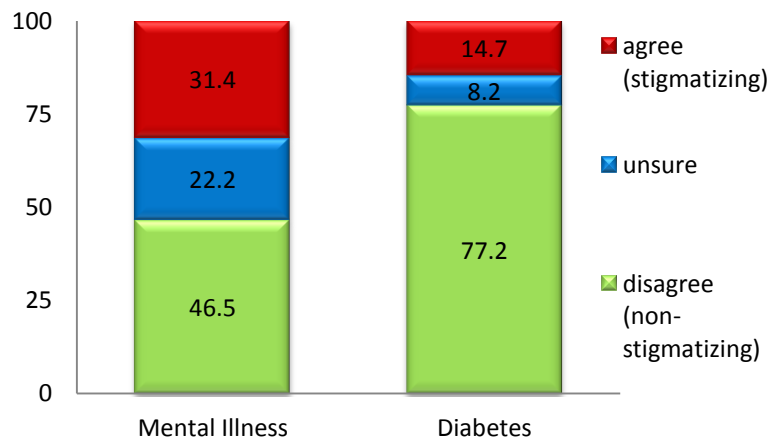


The post tests for both the above items do improve in terms of non-stigmatizing responses in regards to mental illness, but not nearly to the extent of non-stigmatizing responses to diabetes (see Appendix figures $B_1$ and $C_1$).

### 4.2.5 *Recovery*

After the workshop, responses to three of the six questions about recovery showed significant change. Before the workshop, healthcare workers were already highly non-stigmatizing, with 82.6% of respondents agreeing that all people with mental illness can strive for recovery. Even so, there was a significant positive change after the workshop, when 95% were non-stigmatizing (see Figure 10).

**Figure 10. All people with serious mental illnesses can strive for recovery**
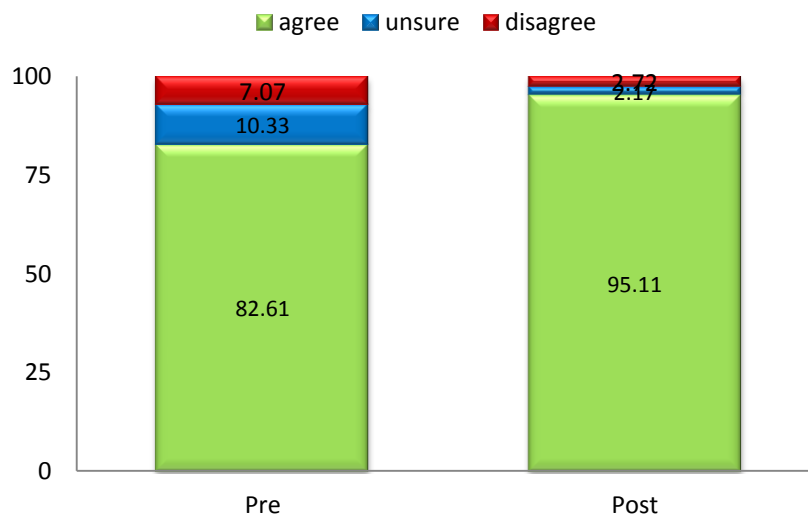


A large proportion of people were unsure (28.6%) or disagreed (13.19%) that recovering from mental illness is possible no matter what you think may cause it (see Figure 11).

**Figure 11. Recovering from mental illness is possible no matter what you think may cause it**
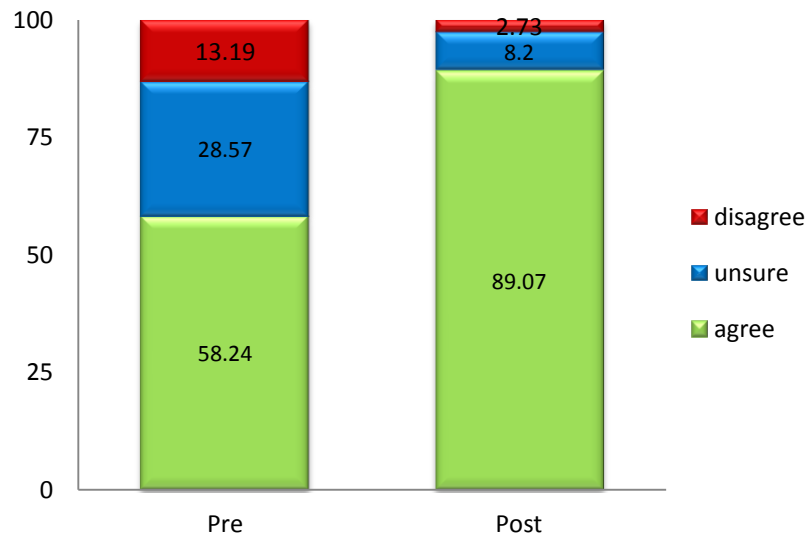


After the workshop, the majority of people who were originally unsure about the statement "recovery can occur even if symptoms are present," agreed with the statement (see Figure 12).

**Figure 12. Recovery can occur even if symptoms are present**
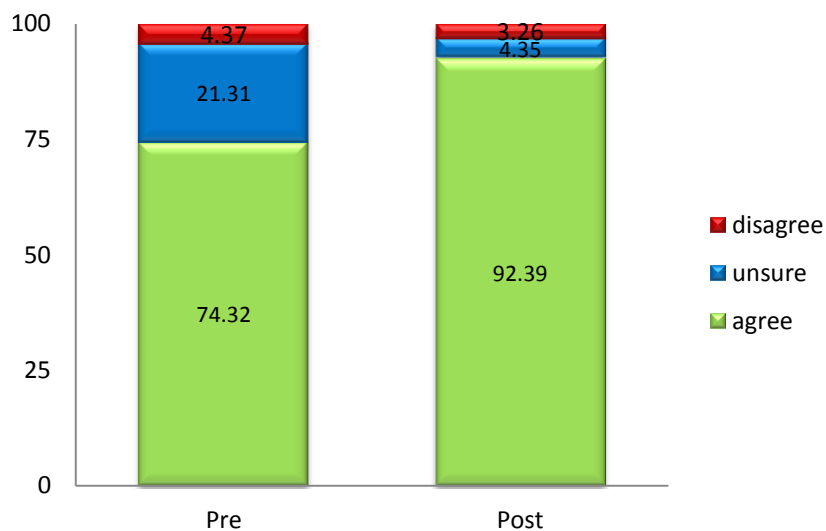


Of the three remaining recovery items that did not change, responses to two items were already non-stigmatizing on the pre-test. For example, 96% agreed that people in recovery sometimes have set back and 98.4% agreed that people differ in the way they recover from a mental illness. Responses to final recovery item, "to recover requires faith," did not change.

# 5    SUMMARY

The adapted LHIN anti-stigma training program delivered to healthcare providers at Interior Health hospitals in BC showed it was effective at reducing mental illness related stigma. Overall, a 22% change in participant post-test responses showed there were less stigmatizing attitudes on 80% of the survey items compared to the pre-test. Changes were observed in areas of social responsibility and role of HCP, disclosure, self-stigma, prejudice, and devaluation. The proportion of change of each individual item varied from 10.1% to 24.5%. Overall change was identified by comparing surveys completed before and after the program in all but two of the participating locations. Therefore overall, the program is capable of changing attitudes. It was apparent from the contrast with the Type II Diabetes questions that not only are the negative opinions about disclosure and self-stigma of mental illness substantially stronger than those related to Type II diabetes, these feelings are well entrenched and more difficult to change. Similar to Central LHIN program, *Mental Illness and Addictions: Understanding the Impact of Stigma*, this adapted program delivered by Interior Health Authority to a number of emergency departments and other HCPs shows credible results and so provides a resource for delivery and/or development of future programs.

# APPENDIX

Note: Figures 1a to 2b reflect the proportion of respondent responses by test period (pre and post). Figures $A_2$ to $H_2$ reflect the proportion of responses that became either more (green bars) or less stigmatizing (blue bars) from pre- to post-test.

## Prejudice and Devaluation

**Figure $A_1$. Proportion of respondents by pre-test and post-test responses (%)**
**People with mental illness seldom pose a risk to the public (Q15)**
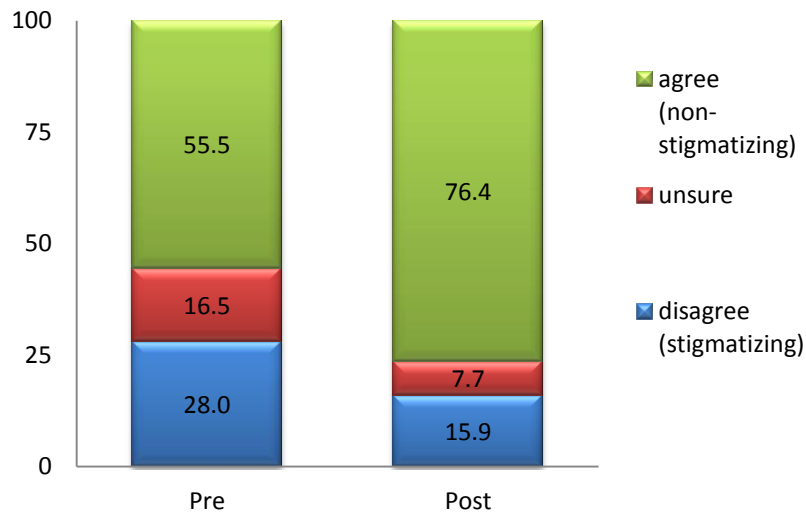


**Figure $A_2$. Direction of change in respondent's responses (%)**
**People with mental illness seldom pose a risk to the public**
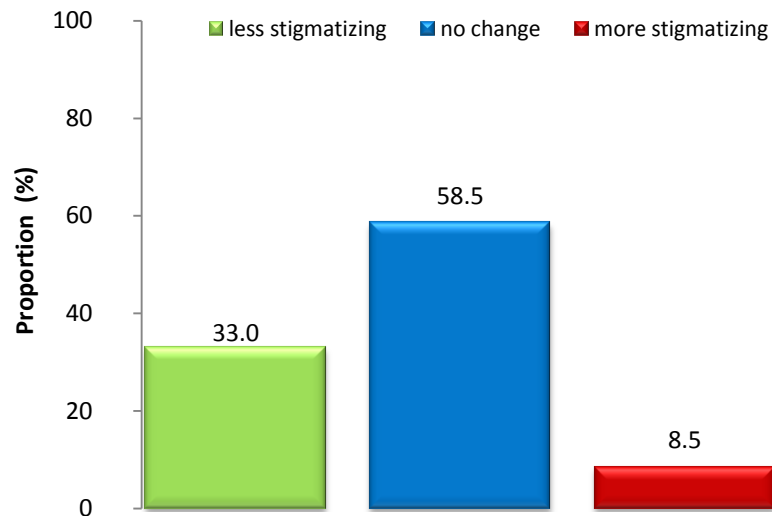


Overall, 24.5% of respondents became less stigmatizing in response to the statement: People with mental illness seldom pose a risk to the public.

**Figure B₁. I would <u>not</u> disclose to my colleagues if I was currently being treated for a mental illness (Q4)**
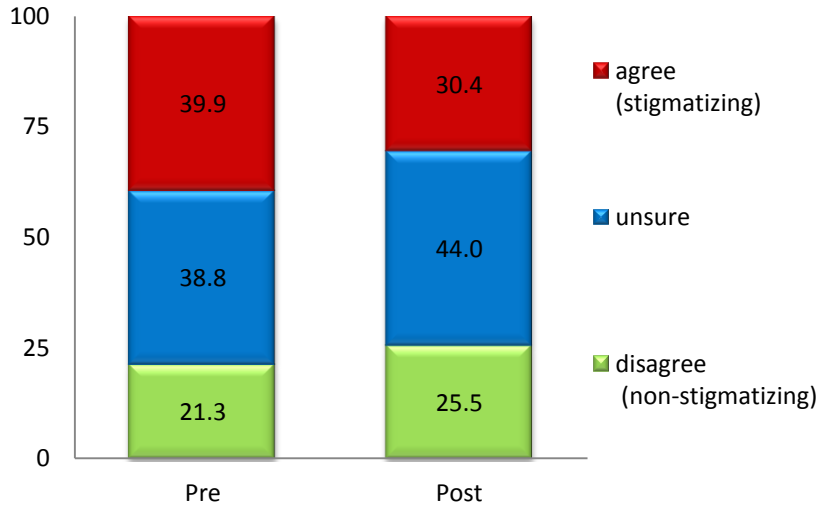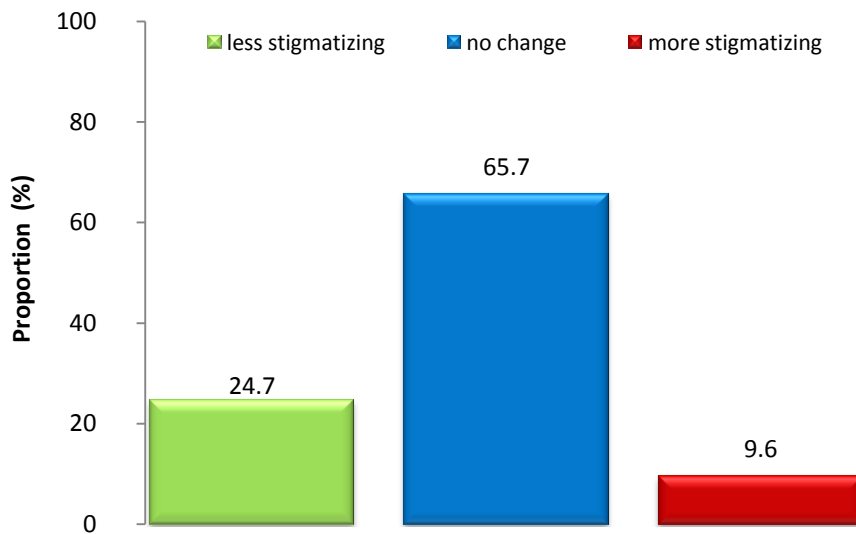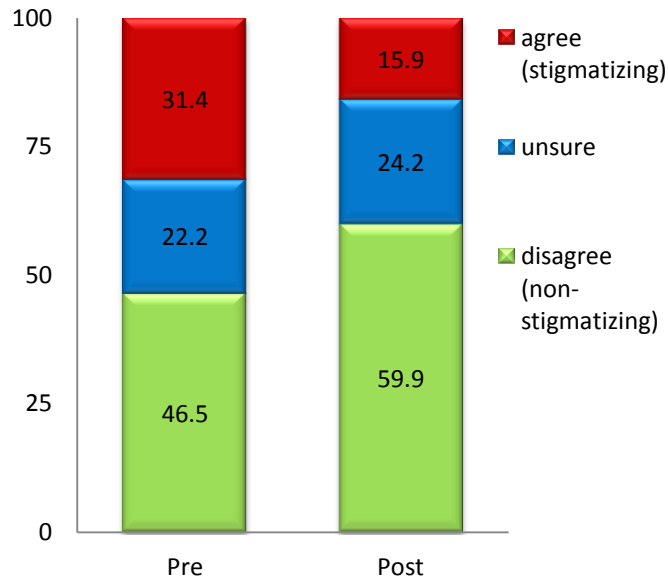


**Figure B₂. Direction of change in respondent's responses (%)**
**I would not disclose to my colleagues if I was currently being treated for a mental illness**
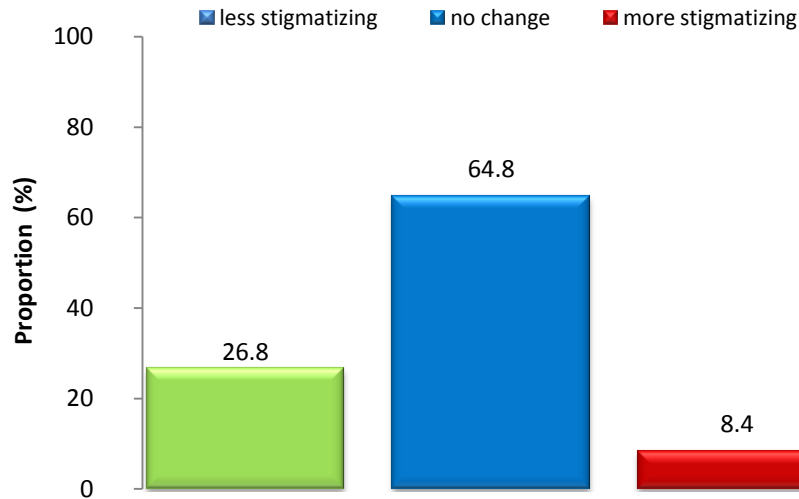


Overall, 15.1% of respondents became less stigmatizing in response to the statement: I would <u>not</u> disclose to my colleagues if I was currently being treated for a mental illness.

## Self-stigma (help seeking)

**Figure C$_1$. I would see myself as weak if I had a mental illness and could not fix it myself (Q5)**
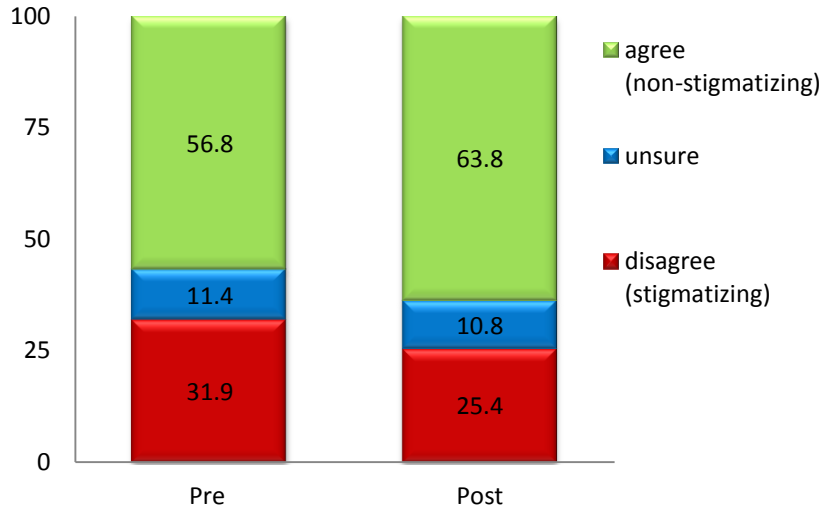


**Figure C$_2$. Direction of change in respondent's responses (%)**
**I would see myself as weak if I had a mental illness and could not fix it myself (Q5)**



Overall, 18.4% of respondents became less stigmatizing in response to the statement: I would see myself as weak if I had a mental illness and could not fix it myself.

## Social responsibility & role of HCP

**Figure D$_1$. Proportion of respondents by Pre-test and Post-test responses (%)**
**I feel as comfortable helping a person who has a mental illness as I do helping a person who has a physical illness**



**Figure D$_2$. Direction of change in respondent's responses (%)**
**I feel as comfortable helping a person who has a mental illness as I do helping a person who has a physical illness**
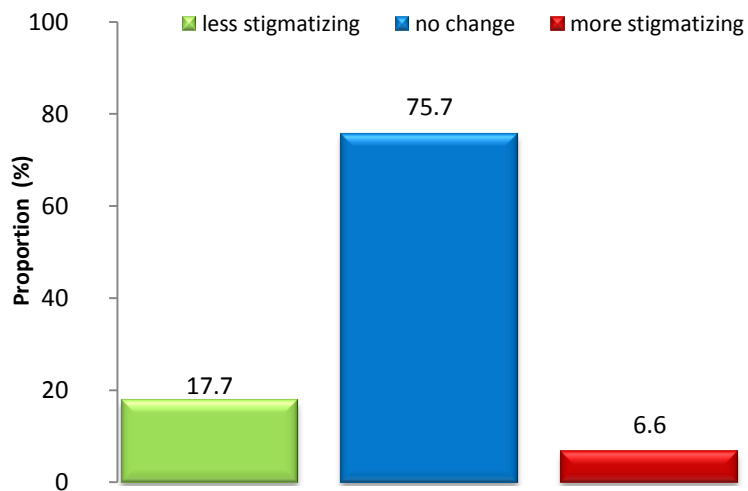


Overall, 11.1% of respondents became less stigmatizing in response to the statement: I feel as comfortable helping a person who has a mental illness as I do helping a person who has a physical illness.

## Social distance

**Figure E$_1$. I would not mind if a person with a mental illness lived next door to me (Q19)**
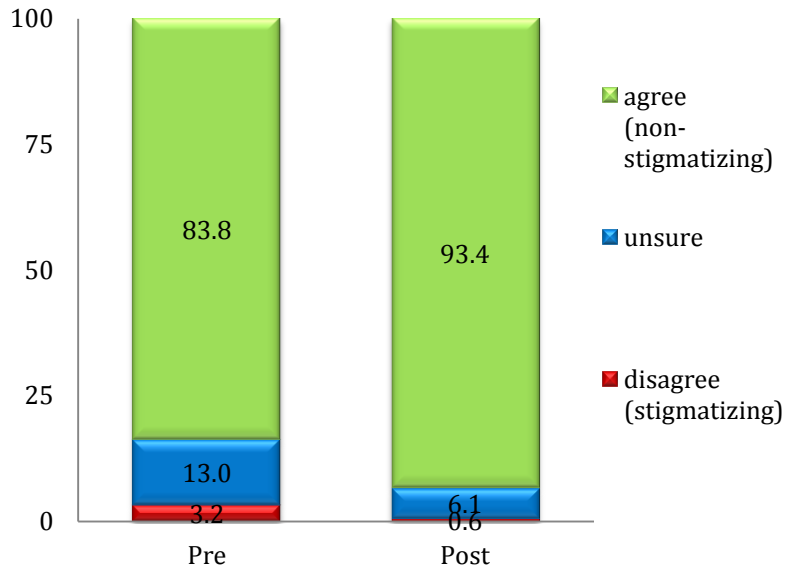


Legend:
- agree (non-stigmatizing)
- unsure
- disagree (stigmatizing)

Pre: 83.8 (agree), 13.0 (unsure), 3.2 (disagree)
Post: 93.4 (agree), 6.1 (unsure), 0.6 (disagree)

**Figure E$_2$. Direction of change in respondent's responses (%)**
**I would not mind if a person with a mental illness lived next door to me (Q19)**



Legend: less stigmatizing | no change | more stigmatizing

less stigmatizing: 11.8
no change: 86.5
more stigmatizing: 1.7
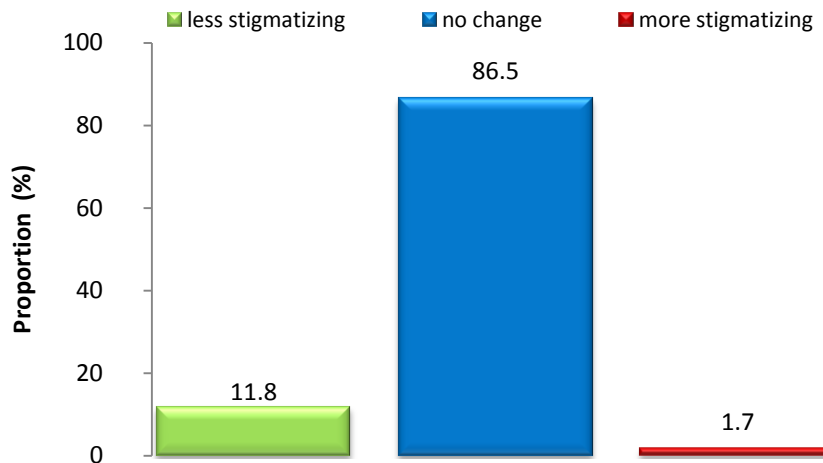
Overall, 10.1% of respondents became less stigmatizing in response to the statement: I would not mind if a person with a mental lived next door to me.

## Social distance

**Figure F$_1$. I would not want a person with a managed mental illness to work with children (Q17)**
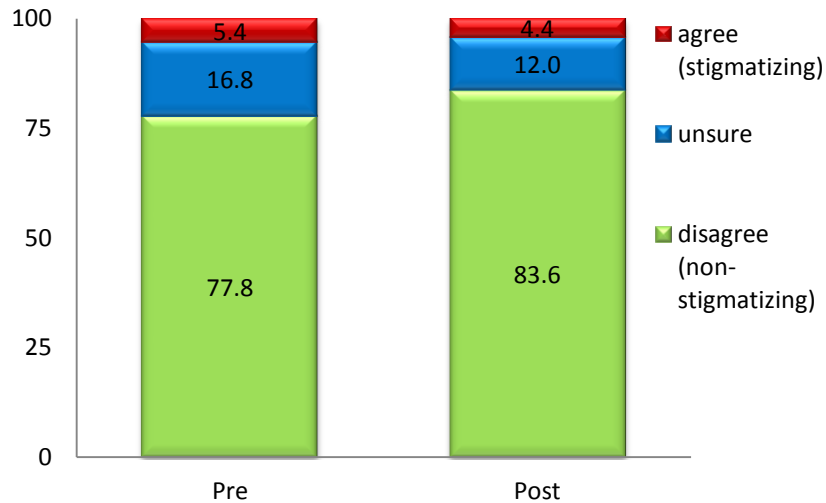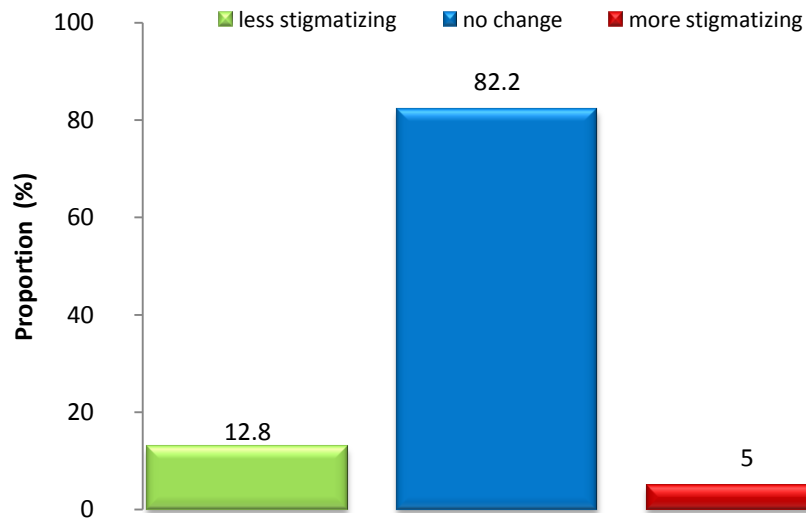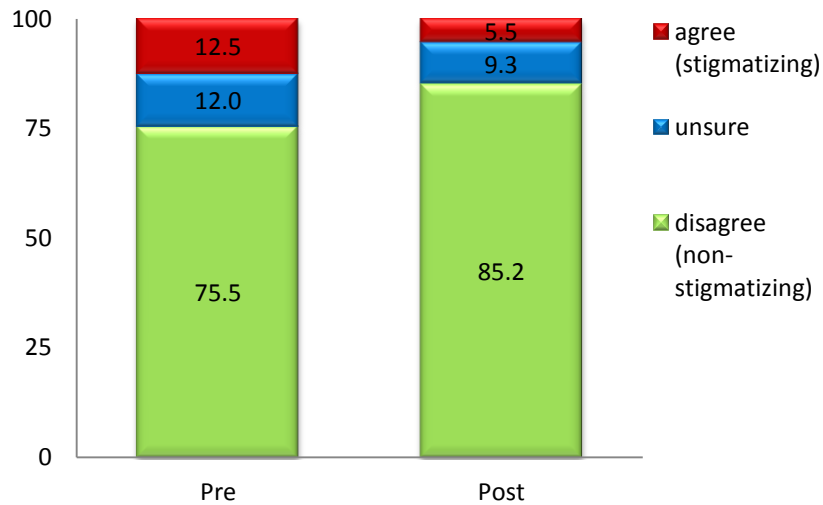


**Figure F$_2$. Direction of change in respondent's responses (%)**
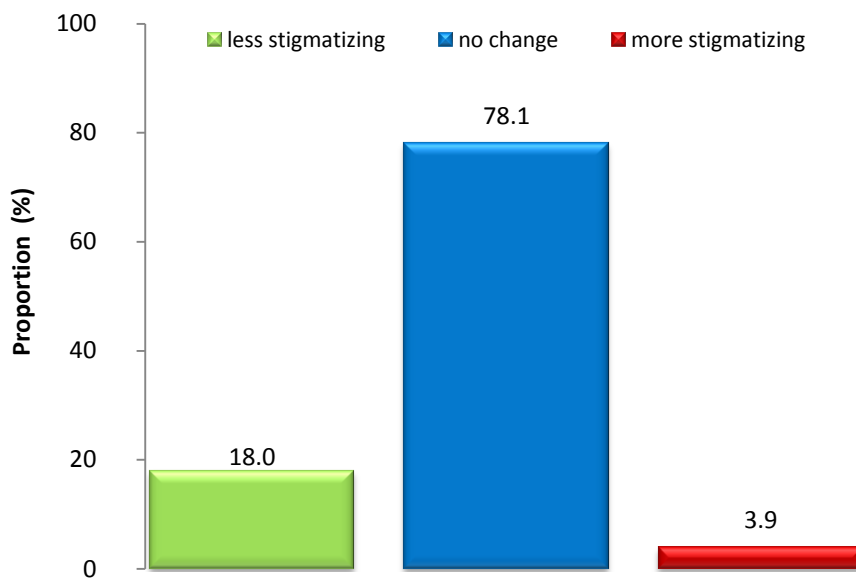**I would not want a person with a managed mental illness to work with children (Q17)**



Overall, 7.8% of respondents became less stigmatizing in response to the statement: I would not want a person with a managed mental illness to work with children.

## Social responsibility & role of HCP

**Figure G$_1$. There is little I can do to help people with mental illness (Q12)**



Figure G$_1$ stacked bar chart. Pre: disagree (non-stigmatizing) 75.5, unsure 12.0, agree (stigmatizing) 12.5. Post: disagree (non-stigmatizing) 85.2, unsure 9.3, agree (stigmatizing) 5.5. Legend: agree (stigmatizing) = red, unsure = blue, disagree (non-stigmatizing) = green.

**Figure G$_2$. Direction of change in respondent's responses (%)**
**There is little I can do to help people with mental illness**



Figure G$_2$ bar chart, Proportion (%). less stigmatizing 18.0, no change 78.1, more stigmatizing 3.9. Legend: less stigmatizing (green), no change (blue), more stigmatizing (red).
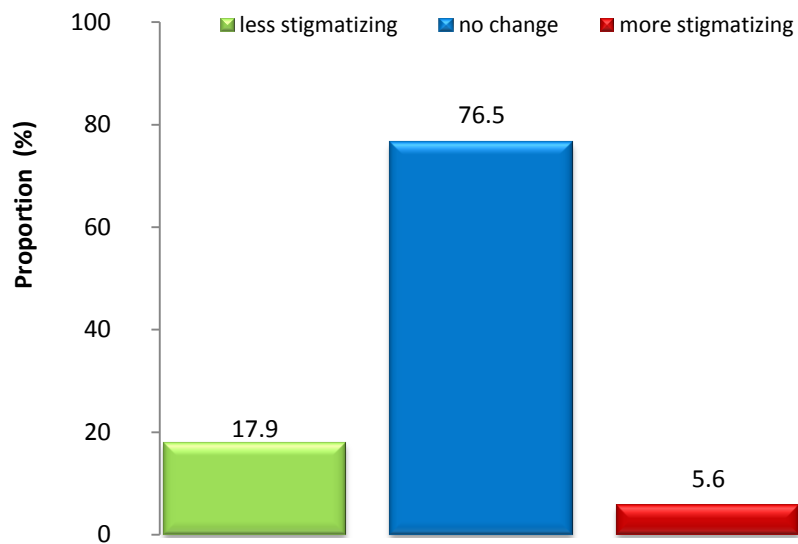
Overall, 14.1% of respondents became less stigmatizing in response to the statement: There is little I can do to help people with mental illness.

## Social responsibility & role of HCP

**Figure H₁. It is a responsibility of healthcare providers to inspire hope in people with mental illness (Q13)**
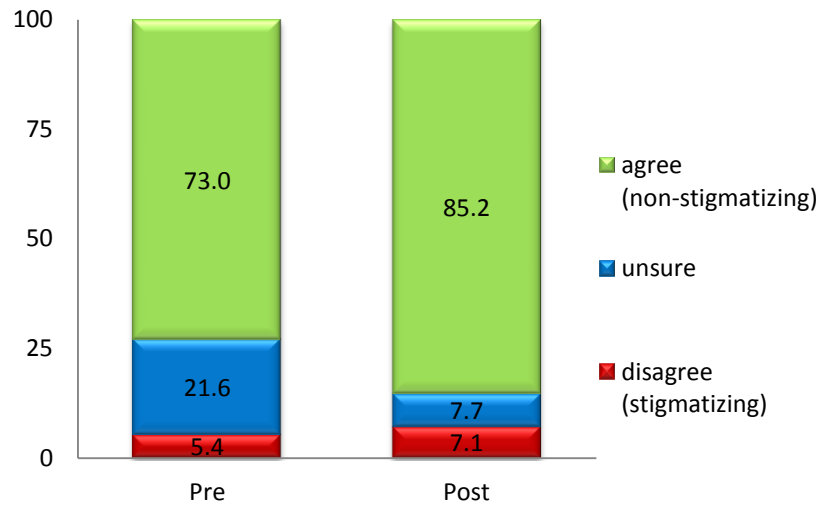


**Figure H₂. Direction of change in respondent's responses (%)**
**It is a responsibility of healthcare providers to inspire hope in people with mental illness**



Overall, 12.3% of respondents became less stigmatizing in response to the statement: It is a responsibility of healthcare providers to inspire hope in people with mental illness.