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Mental Health Commission of Canada
Commission de la santé mentale du Canada

# Understanding Stigma:

## Evaluation Results on Opioid-Related Stigma

Can an online course aimed at improving health-care provider and first responder attitudes toward people with mental illnesses reduce opioid-related stigma?

Mental Health Commission of Canada
mentalhealthcommission.ca

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# Contents

# Introduction: Stigma and the Opioid Crisis

The opioid crisis continues to affect thousands of people in Canada each year. Between January 2016 and June 2020, there were more than 17,000 apparent opioid-related deaths, with the highest number in one period being 1,628 deaths recorded between April and June 2020.[1] While previous data suggested a decrease in opioid-related deaths from 2018 to 2019, recent data shows that deaths are increasing once again in the context of the COVID-19 pandemic. In addition to opioid-related deaths, there were over 21,000 opioid poisoning-related hospitalizations in Canada between January 2016 and June 2020.[2] This number illustrates just a fraction of the interactions that people who use opioids have had with health-care providers (HCPs) and first responders (FRs).

It has been well established that the public holds stigmatizing views toward individuals who use substances.[3] However, people who use opioids must also contend with the additional stigma of medication maintenance therapy, despite it being recognized as a best practice in opioid addiction treatment.[4] There is also a lack of acknowledgment that many individuals with opioid use problems developed their conditions due to overprescribing by physicians.[5] The negative attitudes and beliefs associated with the use of opioids manifest themselves both in interactions with the public and with HCPs and FRs. HCP and FR stigma increases barriers to care and reduces the quality of services received by those who use opioids.[6] People seeking or accessing treatment for an opioid use disorder have described feeling degraded, dismissed, and devalued when interacting with HCPs and FRs.[7]

In 2017, the Mental Health Commission of Canada (MHCC) set out to investigate the effects of HCP and FR stigma on service delivery and care received by those who use opioids.[*] One of the study's main findings was to identify the need for more stigma-informed education and training for HCPs and FRs, using a social-contact (or contact-based) approach.[8,9] Social contact includes the direct and meaningful involvement of people with lived and living experience of substance and/or opioid use. Involvement can range from personal testimonies to program design and/or facilitation.[10,11] Many studies around the world have shown contact-based approaches to be effective. They are widely considered a best practice for stigma reduction[12] and have been leveraged in many of the MHCC's successful stigma reduction initiatives around mental illness.[13]

In 2019, the MHCC embarked on a second study to identify and evaluate specific anti-stigma programs for HCPs and FRs. It sought to learn what works and why in order to share, promote, and replicate those findings and support the scaling up of effective programs and practices.

This report describes the results of one of four programs the MHCC evaluated as part of this study: Understanding Stigma, an online mental health and concurrent disorder contact-based education program. This free, self-directed course (adapted as part of the MHCC's Opening Minds initiative) is directed at health-care and other direct service providers.

[*] Funding for this MHCC Opening Minds initiative was provided by Health Canada.

# Program Description

Understanding Stigma is a free, web-based stigma-reduction intervention for HCPs and other clinicians. It uses social contact (including video and in-person stories and perspectives) as a core teaching element, along with educational and action-oriented components. The MHCC adapted the course from a Central Local Health Integration Network (Ontario) workshop. It is hosted at understandingstigma.ca on the Centre for Addiction and Mental Health's education website.

The aim of Understanding Stigma is to improve attitudes and behavioural intentions toward people who are living with mental illness and addiction. The course consists of three modules: (1) raising awareness, (2) the impacts of stigma, and (3) challenging stigma and discrimination. To obtain their letter of completion, participants are required to complete self-directed activities and quizzes. Learning objectives include the following:

- Explain stigma and its causes, and identify what stigma looks like in the healthcare setting.
- Describe the impact of stigma on people with lived experience and why it is important for people with lived experiences to share their stories.
- Describe the relationship between stigma, mental illness and addiction.
- Identify common misperceptions about mental illness and addiction.
- Describe how mental illness and addiction affect each other and how stigma can affect diagnosis and access to services.
- Describe what is being done to address stigma in healthcare environments and what HCPs can do to make a difference.
- Identify ways to reduce stigma, prejudice and discrimination.
- Describe how applying recovery-based and trauma-informed awareness in one's approach to care challenges stigma.
- Identify strategies to decrease stigmatizing language use and explain how to incorporate respectful language in verbal and written language (para. 4).[14]

Understanding Stigma was designed primarily to improve attitudes and behavioural intentions toward people with mental illnesses, and it has shown consistently positive outcomes in this regard.[15] However, its potential to improve attitudes and behavioural intentions toward people with lived and living experience of substance use has not been previously examined, despite the fact that each module touches on substance use and concurrent disorders. While no content focuses on opioids, the course may still have a positive impact on attitudes and behavioral intentions related to opioid use. To investigate this further, the MHCC evaluated the Understanding Stigma program using the Opening Minds Provider Attitudes Toward Opioid Use Scale (OM-PATOS) (see appendix).[16] The evaluation approach and methodology are outlined in the following section.

# Evaluation Approach

The 19-item OM-PATOS was designed specifically to measure attitudes and behaviours among HCP and FR populations toward people with opioid use problems.[*]

To assess the change in participants' attitudes and behavioural intentions, they were invited to complete online versions of the OM-PATOS immediately before (pre) and after (post) completing the course. For each item, participants were asked to indicate their level of agreement on a 5-point scale: *strongly agree*, *agree*, *neither agree nor disagree*, *disagree*, or *strongly disagree*. Average mean scores on the OM-PATOS can range from 1 to 5, with lower scores indicating more positive attitudes (i.e., less stigma).

Unique ID numbers were created so that pre- and post-surveys could be matched for analysis. Paired *t*-tests were used to analyze the statistical significance of average mean score changes from pre- to post-intervention at the 95% confidence level. Effect sizes (Cohen's *d*) were also calculated to estimate the magnitude of change. Conventionally, a benchmarking criterion is used to interpret effect sizes. Values around .20 are considered small in impact, effect sizes around .50 are considered medium, and those of .80 and greater are considered large.

Outcomes on the OM-PATOS were also assessed using a "threshold of success" measure. This analysis was based on an examination of how many participants reached a minimum 80% threshold of success on the scale at pre- and post-intervention. In other words, it looked at how many participants responded to at least 16 of the 19 items on the scale in a non-stigmatizing way. The threshold of success measure was derived by recoding each participant's response so that it represented either a stigmatizing or a non-stigmatizing response. For example, the statement "People with opioid use problems are to blame for their situation" is recoded as non-stigmatizing if the respondent selects *strongly disagree* or *disagree* or as stigmatizing if the respondent choses *neither agree or disagree*, *agree*, or *strongly agree*. This recoding was done for both pre- and post-survey scores. Though somewhat arbitrary, we have used this cut-off in other evaluations to show the number of participants who achieve an A grade or higher before and after an educational session.[17]

Basic demographic information was also collected.

# Results

Data was collected from 1,276 participants who completed the program between July 2019 and February 2020. Of that total, 823 participants completed the pre- and post-surveys. These 823 matched surveys were used as the basis for analyzing intervention impacts.

[*] While the original OM-opioid scale contained 24 items, results from recent psychometric analyses suggest the adoption of a 19-item single factor solution (unpublished data). Contact Stephanie Knaak at sknaak@mentalhealthcommission.ca for more information.

# Participant characteristics

Participant characteristics for those who completed both surveys are highlighted in Table 1. As is shown, most participants were female (87.2%) between the ages of 21 and 40 (21-30 = 39.3%, 31-40 = 22.5%). Participants represented a range of health-related occupations with the majority indicating they worked as nurses (32.6%) or in allied health roles such as pharmacy, social work, occupational therapy, and others (29.9%).

An examination of differences among participants revealed that those completing both surveys were younger, on average, than those completing only one (mean age completing both = 35.9, *SD* = 12.78; mean age completing one = 38.0, *SD* = 11.87; $t(1,169) = 2.61$, $p = .009$).

**Table 1. Participant Characteristics: Understanding Stigma Program**

| | ***n*** | **Valid %*** |
|---|---|---|
| **Gender** | | |
| Female | 666 | 87.2% |
| Male | 94 | 12.3% |
| Non-binary | 4 | 0.5% |
| No response | 59 | |
| **Age** | | |
| 20 and under | 31 | 3.9% |
| 21-30 | 309 | 39.3% |
| 31-40 | 177 | 22.5% |
| 41-50 | 147 | 18.7% |
| 51-60 | 92 | 11.7% |
| Over 60 | 30 | 3.8% |
| No response | 37 | |
| **Profession** | | |
| Nurse | 259 | 32.6% |
| Physician | 11 | 1.4% |
| Allied health | 238 | 29.9% |
| Medical/lab technician | 8 | 1.0% |
| Administration/non-medical | 103 | 13.0% |
| Student (various disciplines) | 108 | 13.6% |
| Support worker | 33 | 4.2% |
| Other | 35 | 4.4% |
| No response | 28 | |

*n* = 823 *Valid per cent means missing data have been excluded from the percentage calculation.

# Mean score changes pre- to post-intervention

An assessment of scale reliability showed strong levels of internal consistency at both time points (Cronbach's alpha = .95 for the pre-survey; .97 for the post-survey). This means that the scale showed an acceptable level of reliability or stability in this sample.

Participants' average total mean scores at pre- and post-intervention on the OM-PATOS are shown in Table 2. As it highlights, total average mean scores improved from 2.00 (*SD* = .78) pre-program to 1.84 (*SD* = .79) post-intervention, for an average relative score improvement of 8.0%. This change was found to be statistically significant at the 95% confidence level: ($t$[822] = 8.63; $p$ <.001) with an effect size (Cohen's *d*) of .20, which is considered small.

**Table 2. Opioid Scale Score Change Pre- to Post-Intervention: Understanding Stigma Program**

| | **Pre-program mean (*SD*)** | **Post-program mean (*SD*)** | ***t*-test** | ***p* value** | **Effect size (Cohen's *d*)** |
|---|---|---|---|---|---|
| OM-PATOS (19 items) | 2.00 (.78) | 1.84 (.79) | $t$(822) = 8.63 | <.001 | .20 |

Changes in score for individual items on the OM-PATOS were also assessed. This analysis showed statistically significant improvements (at the 95% confidence level) from pre- to post-intervention on all but one scale item. Among the 18 statements that showed significantly positive changes, the greatest degree was observed for the following statements, with effect sizes ranging from .19 to .30:

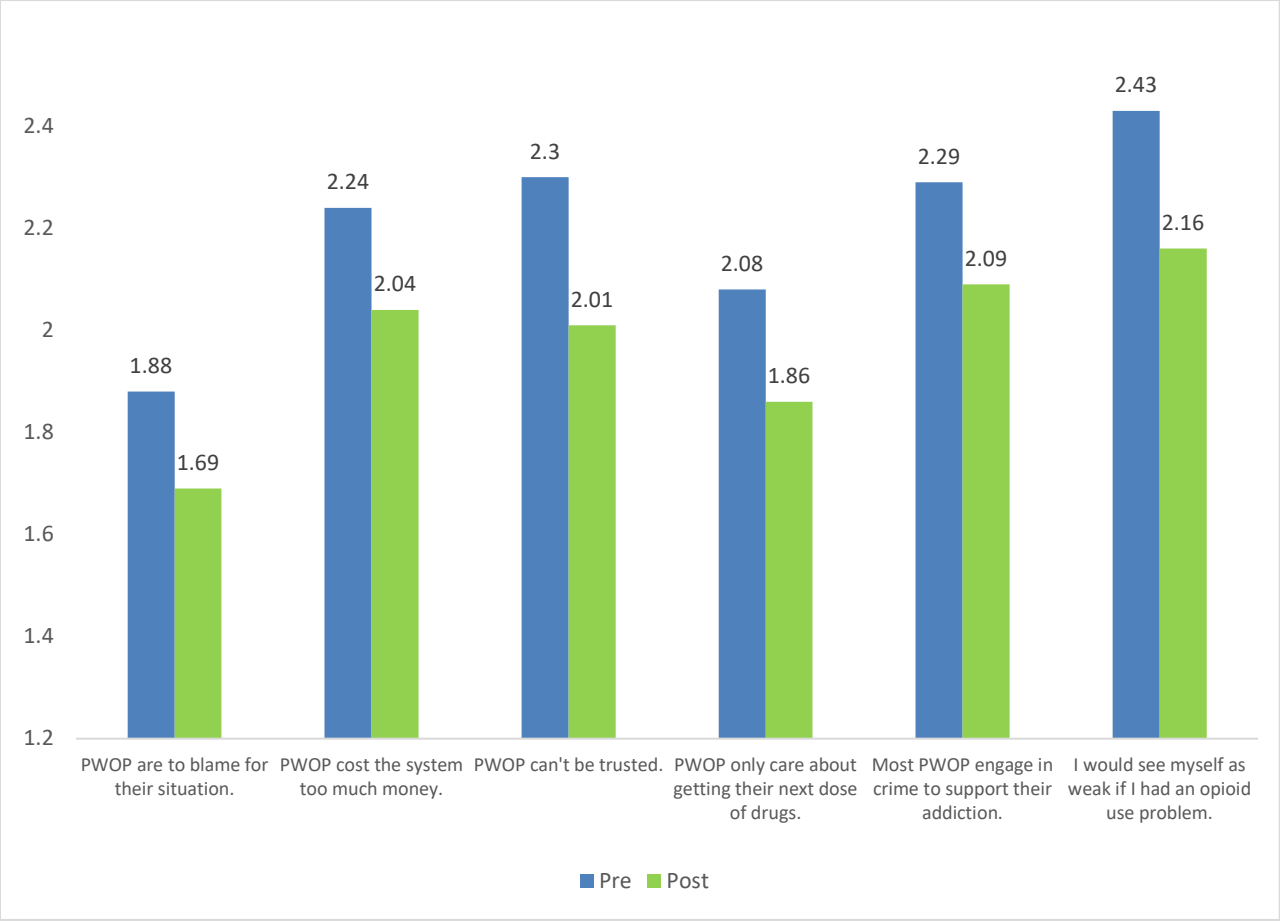
- "People with opioid use problems are to blame for their situation" (Cohen's *d* = .20).
- "People with opioid use problems cost the system too much money" (Cohen's *d* = .19).
- "People with opioid use problems can't be trusted" (Cohen's *d* = .30).
- "People with opioid use problems only care about getting their next dose of drugs" (Cohen's *d* = .24).
- "Most people with opioid use problems engage in crime to support their addiction" (Cohen's *d* = .19).
- "I would see myself as weak if I had an opioid use problem" (Cohen's *d* = .24).

Score changes for these items are highlighted in Figure 1.

No items showed a significant negative change from pre- to post-intervention. The one item showing a slight negative change (i.e., no statistically significant improvement from pre- to post-intervention) was the following:

- "If a co-worker says something negative about someone with an opioid use problem, I would be more likely to speak negatively when discussing them myself" (pre-test mean = 1.98, *SD* = 1.0; post-test mean = 1.95, *SD* = 1.1).

**Figure 1. Items Showing the Most Change from Pre- to Post-Intervention: Understanding Stigma**



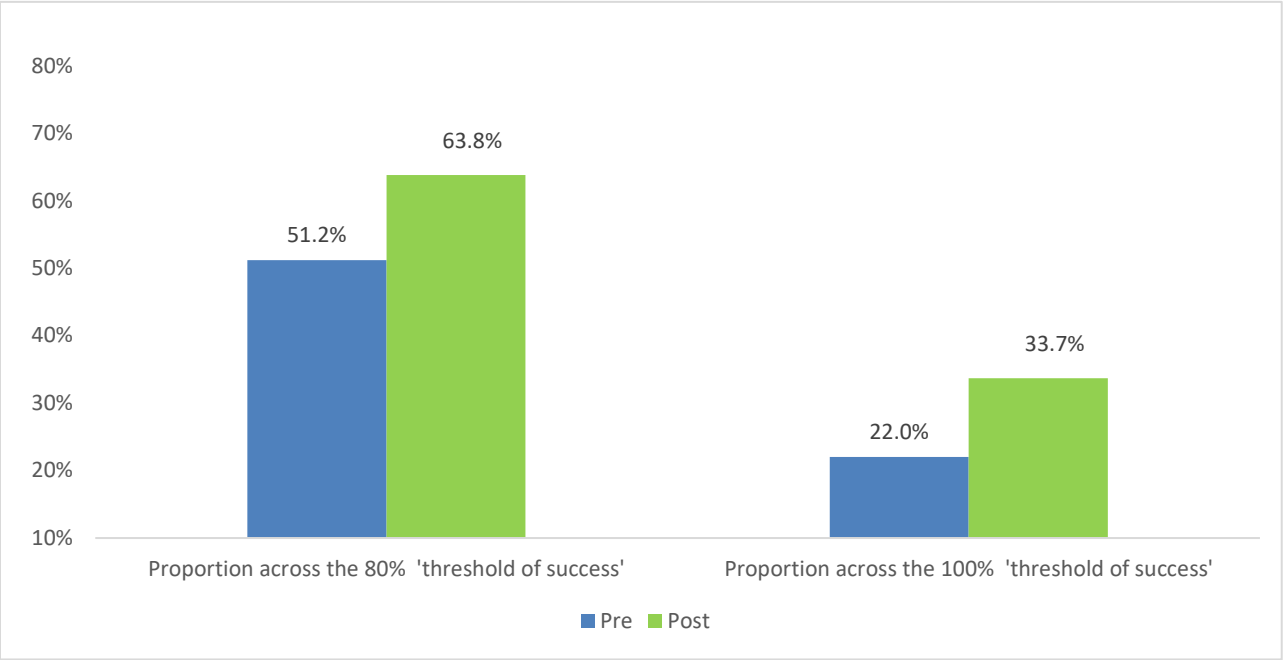

*PWOP = people with opioid use problems

# Threshold of success change pre- to post-intervention

Pre-to-post changes in score on the OM-PATOS were also analyzed according to the threshold of success criteria. These results are highlighted in Figure 2. As is shown, the proportion of participants across the threshold (i.e., the proportion who responded to at least 80% of the items in a non-stigmatizing way) increased from 51.2% at pre-intervention to 63.8% at post-intervention, an absolute improvement of approximately 12.6%.

Equally as encouraging, the proportion of participants who responded to all 19 scale items in a non-stigmatizing way (i.e., the 100% threshold of success) increased from 22.0% of participants at pre-intervention to approximately one-third at post-intervention (33.7%).

**Figure 2. Pre-to-Post "Threshold of Success": Understanding Stigma Program**




Overall, 17.4% of the participants had no change in score from pre- to post-intervention. In addition, approximately 3.8% of participants had worse stigma scores from pre- to post-intervention.* Further analyses revealed no major differences in these participant's characteristics, but a difference in baseline scores was observed: they had lower OM-PATOS scores at baseline (*M* = 1.65, *SD* = .56) as compared to the average mean scores for all participants (*M* = 2.00, *SD* = .78).

# Summary and Conclusions

As evidenced in the following key findings, the evaluation of the Understanding Stigma online program generally showed encouraging results in terms of improving attitudes and behavioral intentions toward people with lived and living experience of opioid use:

- statistically significant improvements from pre- to post-intervention on the total OM-PATOS as well as on 18 of the 19 individual scale items, with small effect sizes
- a more than 10% increase in the proportion of participants across the 80% threshold of success from pre- to post-intervention and a similar increase in the proportion of participants across the 100% threshold of success from pre- to post-intervention

Worth noting is that the effect-size improvement observed in the Understanding Stigma evaluation is somewhat smaller than other substance use and/or opioid use stigma reduction interventions using the OM-PATOS.[18] It was also smaller than the effect sizes we have observed in this program for mental illness-related stigma.[19] This is perhaps unsurprising given that the Understanding Stigma program is not

* This result is based on the minimum detectable change (MDC) statistic, which measures how many scale points of change likely reflect a true change in attitude that cannot be attributed to measure error. The MDC for the OM-PATOS is .72 points at the 95% confidence level.

tailored to opioid-related stigma specifically but rather toward mental illnesses and concurrent disorders more generally. Yet given the broader focus of the program content, it is encouraging that significant improvements and small effect sizes were nonetheless observed.

The fact that some participants' scores worsened from pre- to post-intervention is an important area for further investigation. One possible reason may be that, for some participants, the program led to new or increased awareness of personal prejudices and biases (see Sukhera et al., 2018, for example.). This explanation would be consistent with the fact that those whose scores worsened from pre- to post-intervention had relatively lower baseline scores compared to the average for all participants. Other possible factors would also be important to explore.

This evaluation of Understanding Stigma is not without limitations. For one, the matched surveys that the analyses were based on do not represent all those who participated during the study's time period (i.e., approximately 64% of those who took the course during that time completed pre- and post-surveys that were matched). In addition, results should be interpreted with some caution, since a difference in average age was observed for participants who completed both surveys as compared to those who did not — meaning that the results may not be fully representative of the actual population of participants who completed the program.

With these limitations in mind, the results show Understanding Stigma to be a promising program for reducing opioid-related stigma. The results further suggest that if this intervention were to be adapted to opioid-related stigma more specifically (e.g., by adding a module specific to opioids, including stories from people with lived and living experience of opioid use and opioid-specific educational content), it is likely that stronger impacts would be observed.

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# Appendix

## The Opening Minds Provider Attitudes Toward Opioid Use Scale (OM-PATOS)

This survey asks for your opinions on a series of statements about people with opioid use problems. Opioids include medications such as Percocet, Vicodin, morphine, and oxycodone as well as heroin, fentanyl, and carfentanil. “Opioid use problem” means a pattern of use that leads to serious harms, impairment, or distress. Please answer according to your own beliefs, feelings, and experiences.

Please answer the questions according to your own beliefs, feelings, and experiences. Your responses are completely anonymous and will remain confidential. Only aggregated data is used for analysis. Your honest opinions are very important, as the aggregated information will be used to help guide the development of education and training tools and programs for first responders and other front-line health and social care providers.

| **Please indicate the extent to which you agree or disagree with the following statements.** | **Strongly Disagree** | **Disagree** | **Neutral** | **Agree** | **Strongly Agree** |
|---|---|---|---|---|---|
| 1. I have little hope that people with opioid use problems will recover. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. People with opioid use problems are weak-willed. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. People with opioid use problems are to blame for their situation. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. I tend to use negative terms when talking about people with opioid use problems. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. People with opioid use problems cost the system too much money. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. I would see myself as weak if I had an opioid use problem. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. I tend to act more negatively toward people with opioid use problems than other people I help. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. People with opioid use problems can’t be trusted. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. People with opioid use problems who take drug therapies like methadone are replacing one addiction with another. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10. I tend to be less patient toward people with opioid use problems than other people I help. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11. People with opioid use problems only care about getting their next dose of drugs. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 12. When people with opioid use problems ask for help with something, I have a hard time believing they are sincere. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 13. People with opioid use problems should be cut off from services if they don’t try to help themselves. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 14. I tend to use negative terms when talking about people with opioid use problems. | ☐ | ☐ | ☐ | ☐ | ☐ |

| | | | | | |
|---|---|---|---|---|---|
| 15. People with opioid use problems who relapse while trying to recover aren't trying hard enough to get better. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 16. I tend to speak down to people with opioid use problems. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 17. Most people with opioid use problems engage in crime to support their addiction. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 18. If a co-worker says something negative about people with opioid use problems, I would be more likely to speak negatively when discussing them myself. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 19. I tend to think poorly of people with opioid use problems. | ☐ | ☐ | ☐ | ☐ | ☐ |

**THANK YOU VERY MUCH FOR TAKING THE TIME TO COMPLETE THIS SURVEY.**

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