

COVID-19 Prevention Behaviors Research Summary

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Executive Summary

Recent national trends suggest that youth and young adults, ages 16-26, are a high-risk group for transmission of COVID-19. Youth and young adults are also the least likely to be engaged through traditional local government communication channels and have unique barriers and motivators that influence their behavior. To increase effective engagement with this population, research was undertaken to understand the barriers youth and young adults face, as well as their motivations to comply with mitigation efforts in order to influence their attitudes and beliefs regarding their role in reducing transmission of COVID-19. This information will be vital in designing a community-based social marketing campaign focused on supporting this population.

In addition to young adults, the general population was also surveyed to increase Whatcom County Health Department's understanding of the current landscape in relation to COVID-19 and to serve as a comparison population to young adults.

Survey data indicates that young adults ages 18-26 are facing large economic hardships, reporting higher rates of unemployment and underemployment.

- 47% of 18-26 year-olds reported that their employment status or income status been reduced compared to 25.6% of those 27 and older.
- 48.6% of young adults (18-26) reported 'often' or 'always' feeling stress over finances compared to 25.3% of those 27 or older.

The emotional state of young adults in the county is also negatively impacted in a disproportionate manner.

- Rates of feeling depressed (40.5%) and anxious (71.4%) were notably high amongst young adults compared to older adults (21.6% depressed, 43.5% anxious).
- In focus groups, many participants reported an increased need for prescribed medications and that previously diagnosed issues had been exacerbated by the pandemic.
- 'COVID exhaustion' and a lack of mental health resources was also discussed by participants

Non pharmaceutical interventions, NPIs, include physical distancing or staying at least 6 feet away from others, wearing a mask, and avoiding groups of 5 or more individuals outside of your own household. Participants were asked about their behaviors and adherence to the three main NPIs in both the *public* and *private* realms.

- 90.5% of total respondents reported 'often' or 'always' physical distancing while in public.
- 88.3% of total respondents reported 'often' or 'always' avoiding large public gatherings
- 92.3% of total respondents reported 'always' or 'often' wearing face masks in public.
- 40.8% of young adults report physical distancing in private
- 44.7% of young adults reported mask wearing when around friends and family they do not live with
- Similar reduction in NPI adherence in private settings was reported amongst those 27 and older

This data highlights a local challenge and an education opportunity for messaging.

Individuals felt that social distancing measures were unnatural when around family and friends, and they weren't comfortable controlling the behavior of others. Younger respondents noted the importance of peer and familial pressure to not practice NPIs as a barrier in private settings. Peer pressure was also highlighted as one of the most effective means to get youth and young adults to comply with social distancing measures, although many participants admitted a reluctance to engage with their friends on this issue. This could be an effective focal point for communication tactics within a larger social marketing campaign

Respondents were asked what they could learn or hear that may change their behavior. Important messaging should include aspects of the following:

- Adherence to NPIs will allow things to 'return to normal' more quickly
- Adherence to NPIs can increase the amount of activities you can do
- Issues of perceived risk - acknowledgement of a lack of perceived risk, challenges to perceived risk, emphasize their role in lowering risk of transmission to others.

The return of 'normality' is a strong driver for individuals. The idea that this is a 'long haul' may be overwhelming for many.

Young adults indicated messaging should come from their peers rather than official sources. While they have a high level of trust in science-based actions, they indicated that they prefer to receive information from peers and other known forms of media, such as student groups or networks.

The application of NPIs and social distancing in real world situations and in the private lives of individuals is where Whatcom County, especially its young adults, is facing a great challenge. It may be time to incorporate harm reduction strategies into our messaging on order to guide people on how to incorporate social distancing measures in complex situations. Evidence is overwhelmingly showing that people are relaxing their distancing compliance in private setting, and many don't feel that they can sustain these measures. We have moved beyond the need for basic education. Social distancing measures are novel in that they are one of the few public health interventions that become harder and extoll a greater cost the longer that they are practiced. This cost must be calculated into our expectations of behavior moving forward and program must address and mitigate this emotional cost.

Background

Current epidemiological data, both locally and nationally, has shown that young adults (ages 18-26), are a high-risk group for transmission of COVID-19. Recent trends nationally show an increase in cases among this age group, and social gatherings are a substantial factor in transmission. Additionally, this population is least likely to be engaged through traditional local government communication channels. Young adults also have unique barriers and motivators that influence their behavior to adopt non pharmaceutical interventions, or NPIs. It was determined that further engagement with this population is needed to understand the barriers they face, as well as motivators for compliance in order to influence their attitudes and beliefs regarding their role in reducing transmission of COVID-19. This information will be vital in designing a social marketing campaign focused on supporting this population.

A survey was designed and distributed to better understand the focus population (18-26-year olds) as well as the current issues, feelings and challenges related to COVID-19 amongst the general population of Whatcom County. The survey was sent out through various communication channels and was open from 8/5/20 to 8/20/20. It was shared by the local university and colleges, as well as through business organizations, and on numerous social media platforms. During that time period over 4500 surveys were completed. All zip codes in Whatcom County were represented, in addition to some individuals currently living outside of the county who either do business in the county or are students who will be returning in the fall.

The survey gathered data on multiple factors important to understanding the current local landscape in relation to COVID-19 and the impact the pandemic has had on the local community. Respondents were asked about whether they have had COVID or know others who have, their emotional state, as well as their social distancing practices in both public and private settings and their beliefs about the effectiveness of non-pharmaceutical interventions (NPIs). In addition to the survey, 5 focus groups were held with students from Whatcom Community College, Bellingham Technical College and Western Washington University to better understand, in a qualitative manner, the challenges that students and more broadly, young adults, were currently facing.

This data will help to identify important trends in the county as well as opportunities for a social marketing campaign to make substantial changes in behavior.

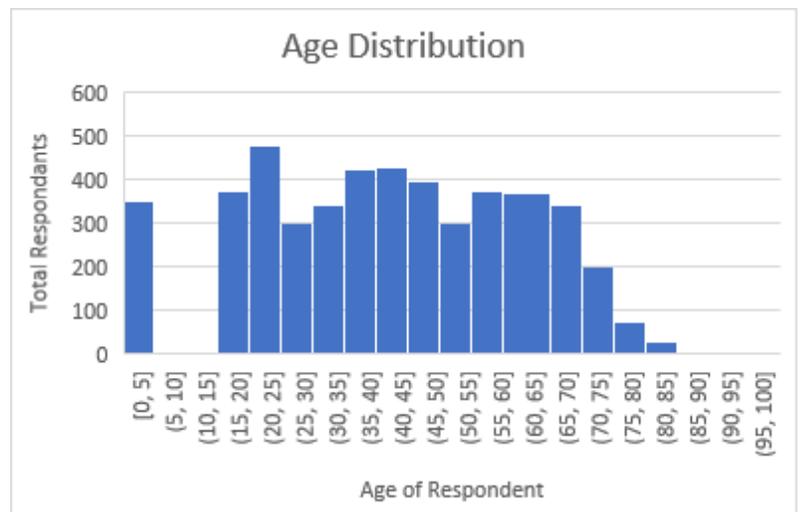
Survey Results

Demographics:

Age of respondents was fairly evenly distributed across all age groups. There was a lack of data for age people ages 28 to 32, likely due to the heavy reliance on the university and colleges for distribution of the survey to individuals in the county under 30. It also highlighted the lack of engagement from this age group in more mainstream and traditional social media platforms and channels.

Approximately 62.9% of respondents were from the three Bellingham zip codes. Ferndale represented 9.3% of respondents, and Lynden made up 6.5% of the total. The distribution of respondent's zip codes

Figure 1. Age distribution of respondents. The 0-5 age group represents respondents who did not list their age.

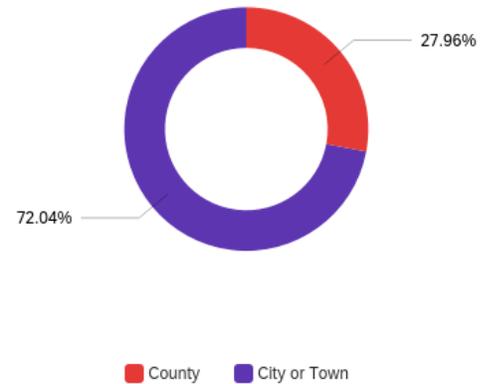


roughly tracked with the distribution of the population in Whatcom County (Figure 2). Geographical identity was also touched on when respondents were asked if they considered their residence to be county or city/town. City residents accounted for 72.04% and County residents accounted for the remaining 27.96% of respondents (Figure3).

Figure 2. Zip Code and Geographic breakdown of respondents

ZIP CODE	Number of Respondents	Percent of total
98225 (Bellingham W)	1305	30.1
98226 (Bellingham E)	735	17
98229 (Bellingham, Sudden Valley, Chuckanut)	685	15.8
98248 (Ferndale)	404	9.3
98264 (Lynden)	280	6.5
98230 (Blaine, Birch Bay)	185	4.3
98247 (Everson, Deming)	115	2.7
98266 (Maple Falls, Peaceful Valley)	43	1.0
98240 (Custer)	35	.8
98295 (Sumas)	27	.6
98244 (Mt. Baker, Deming)	26	.6
98284 (Sedro-Woolley)	26	.6
98262 (Lummi Island)	23	.5
98276 (Nooksack)	12	.3

Figure 3. Percent of respondents identifying as a county or city residents



The majority of Whatcom County residents still do not personally know someone who has been diagnosed with COVID-19 as only 45.6% stated that they knew someone who has tested positive. The majority of respondents did not think that they had COVID-19 at anytime in the past year with 68.8% of the population noting that they probably or definitely did not have COVID-19 compared to 11.6% who felt that they definitely or probably did have COVID-19 at some point. Most respondents (77.7%) had not been tested for COVID-19 previously, and 6.3% reported that they were planning on getting tested soon (within 1-2 weeks).

Economic Impact:

Fully employed individuals made up 47.1% (n=2079) of the responses while 18.7% (n=826) were employed part time. Seven and a half percent of individuals listed themselves as unemployed and looking for work while 26.7% of respondent listed themselves as either ‘unemployed not looking for work’, ‘retired’, or ‘disabled’.

When data is split between the age group of interest (18-26) and the rest of the county a disparity arises. For individuals over the age of 26, 3.7% list themselves as unemployed and looking for work while amongst those aged 18-26, 21.8% list themselves as unemployed and looking for work. Younger individuals were also more likely to be employed part time (35.6% amongst 18-26, 14.4% 27+). The economic disparity faced by young adults was also highlighted in responses to questions about the economic impacts of COVID-19. There was a greater impact on income and employment noted amongst young adults, with 47% of 18-26 year olds reporting that their employment status or income status been reduced compared to 25.6% of those 27 and older. These financial disparities due to COVID-19 are also emphasized in self-reported stress levels as 48.6% of young adults (18-26) reported 'often' or 'always' feeling stress over finances compared to 25.3% of those 27 or older reporting similar stress.

Mental and Emotional Impact:

Young adults reported feeling higher levels of negatively associated emotions over the past month compared to the rest of the population (Figure 4). Rates of feeling depressed (40.5%) and anxious (71.4%) were notably high amongst young adults compared to older adults (21.6% depressed, 43.5% anxious). While the disparities were slightly less significant, it is worth noting that traditionally positive emotions were felt less by young adults with only 38.1% of young adults reporting feeling happy (compared to 46.3% of older adults) and only 18.4% of young adults reporting feeling relaxed (Compared to 30.2% of older adults).

Figure 4. Emotional States of Young Adults (18-26) vs General Whatcom Population

18-26
year
olds
(n=889) 27 and
older
(n=3,384)

Percentages are based on feeling an emotion either 'often or 'always' over the preceding month.

Depressed	40.5	21.6
Scared/Fearful	38.3	23.4
Angry	29.6	24.9
Stress Over Finances	48.6	25.3
Worried about personal health	50.2	33.9
Relaxed	18.4	30.2
Sad	47.1	28.9
Worried about health of family	69.7	52.6
Anxious	71.4	43.5
Worried for Community	67.5	67.5
Happy	38.1	46.3

Prevention Behaviors

Non pharmaceutical interventions, or NPIs, include physical distancing or staying at least six feet away from others, wearing a mask, and avoiding groups of five or more individuals outside of your own household. It is important to understand the prevalence of public compliance with social distancing behaviors. Epidemiological data, however, is beginning to show that transmission is often happening in the private arena, between family and friends and at private gatherings. Survey participants were asked about their behaviors and adherence to the three main NPIs in both the public and private realms (Figure 5).

Whatcom County is doing well with individuals complying with NPI recommendations in the public realm. In public, 90.5% of respondents reported 'often' or 'always' physical distancing. 'Often' or 'always' avoiding large public gatherings was reported by 88.3% of respondents and 92.3 of respondents reported 'always' or 'often' wearing face masks in public.

While the public NPI intervention adherence numbers are encouraging, there is a troubling shift in behavior amongst Whatcom residents when asked about adherence to NPI recommendations in what people would perceive to be private spaces. In the survey, "private" was defined as situations where individuals are amongst friends and family that they do not live with. While the change in behavior between public and private spaces is more significant for young adults, it exists for all Whatcom residents (Figure 5). Only 40.8% of young adults report physical distancing in private and mask usage reduced to only 44.7% when around friends and family. Similar changes are seen amongst those 27 and older as well, with 67.2% reporting physical distancing in private settings and only 57.7% reporting wearing masks around family and friends that they do not live with. This data correlates with our current epidemiological understanding of local COVID -19 transmission as well as reports from case and contact investigations. It also highlights an education opportunity for messaging.

Figure 5. NPI Adherence between Age Group of Interest and General Population

18-26
(n=889) 27 and
older
(n=3,384)

Areas to focus on for improvement noted in red

	18-26 (n=889)	27 and older (n=3,384)
Public physical distancing (% of often/always)	88.4	91.1
Avoiding large public groups (% of often/always)	89.8	88.3
Wearing a mask in public (% of often/always)	95.4	91.7
Private physical distancing (% of often/ always)	40.8	67.2
Avoid private gatherings (% of often/always)	81.2	83.7
Wear masks in private settings (% of often/always)	44.7	57.7

The motivations to not participate in NPIs in private settings varied by age cohort (Figures 6-7). Physical distancing for all age groups was highly driven by the idea that people felt they could not control the behavior of others. For young adults, this was compounded by information gathered in focus groups that often individuals felt they could not say something to others about keeping distance and that it was awkward and could possibly cause conflict. This is supported by the evidence in Figure 6 that young adults noted family/peer pressure and the difficulty and unnaturalness of social distancing with friends and family.

When older adults did not or could not physically distance themselves from friends and family, they also noted feeling at the mercy of the 'behavior of others' as well as being highly driven by feelings that it was 'unnatural' to stay away from friends and family. Similar differences also appeared when analyzing barriers to wearing a mask in private situations. Young adults were highly driven to not wear a mask by variables that inherently involved perceived pressure from 'others'. Beyond the primary issue of it being difficult and unnatural, young adults noted that peer and familial pressure drove their choices as well as feeling that they could not control the behavior of others. Familial and peer pressure ranked very low for older adults as a reason to not wear a mask. Older adults filled in multiple reasons under the "other" tab in response to not wearing a mask. Many noted that, while they see other people, they often do it outside or distance themselves. Older adults consistently noted that they felt if you are outside and 6 feet from someone then a mask is unnecessary and awkward. It is also worth noting that "I don't think I will get infected" ranked fairly high in both young adults and older participants.

Figure 6. Reasons For Not Physical Distancing (6ft) In Private

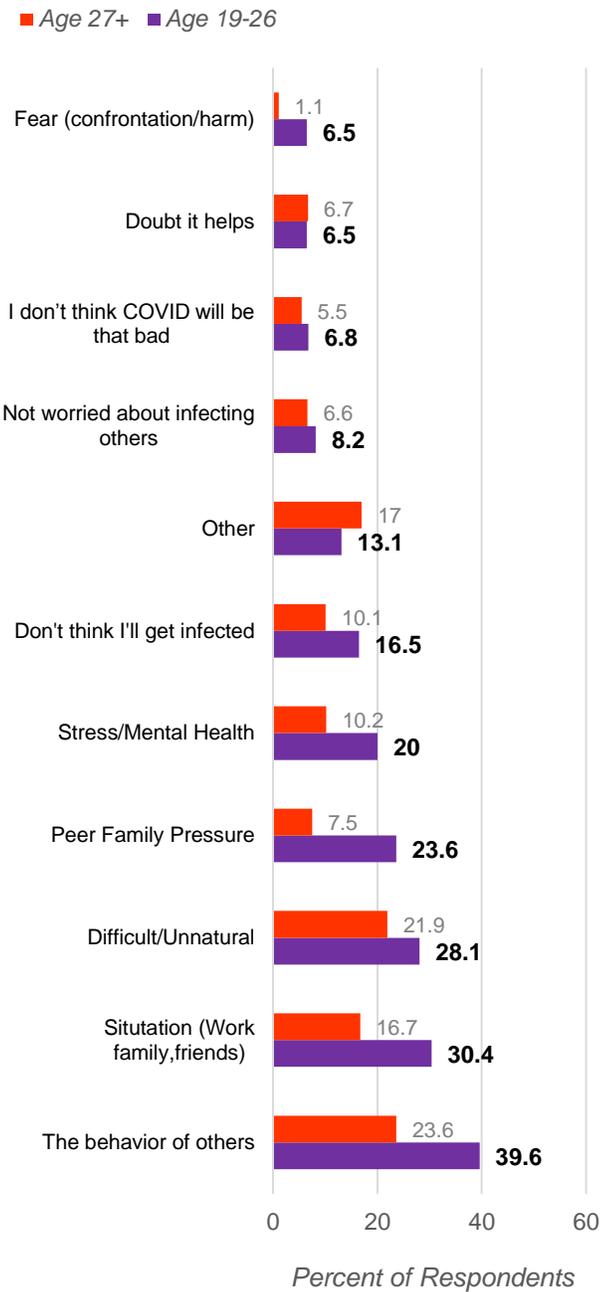
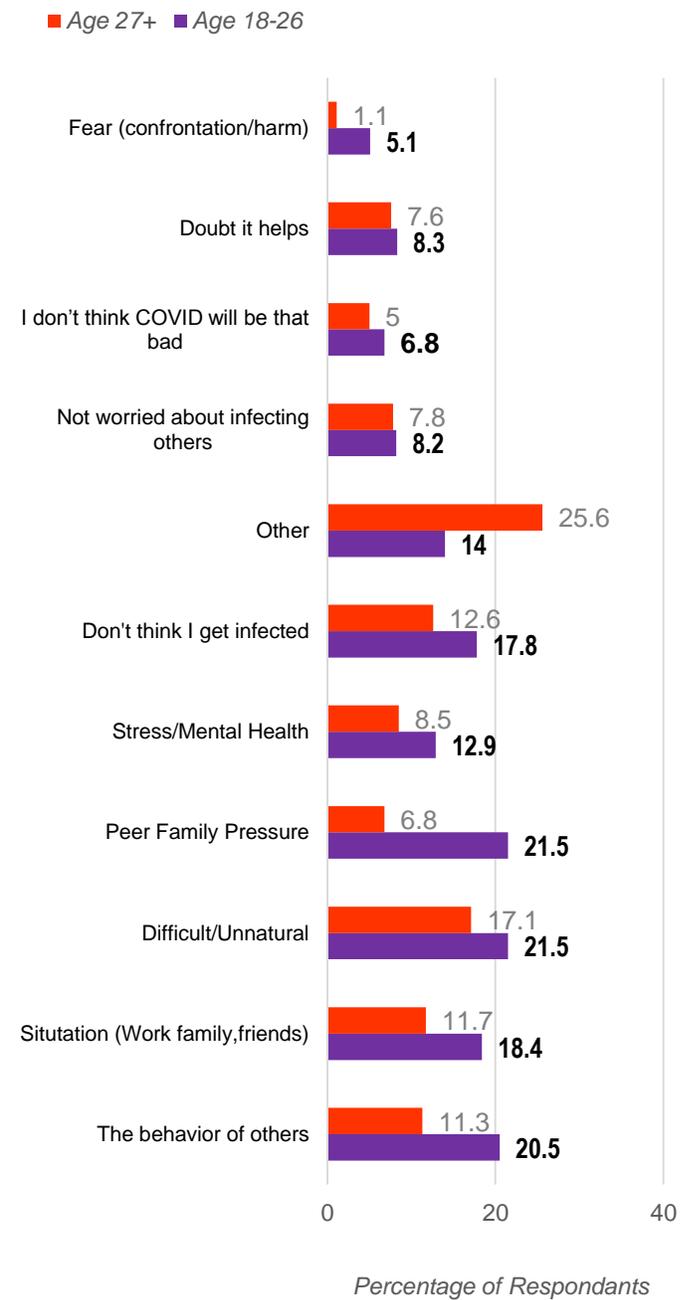


Figure 7. Reasons For Not Wearing a Mask In Private



The perceived effectiveness and understanding of the purpose of NPIs was fairly strong, although there is room for improvement (Figure 8). Young adults, generally, had more confidence in the effectiveness of NPIs to protect other people. Their scores ranged from 79.5% in support to 83.9%. Older adults were slightly lower in their perception of effectiveness of NPIs to protect other people. Both age cohorts ranked 'avoiding large groups' as the most effective measure to protect yourself, and both age cohorts ranked 'masks' as the least effective measure for self-protection. It is noteworthy that 54.8% of young adults and 43.6% of older adults still felt that masks were highly effective self-protection measures even though the

majority of public health messaging has focused on masks ONLY protecting others and not being an effective self- protection measure. Additionally, it is of interest that the numbers for physical distancing were not stronger- being under 80% in all categories (self-protection, protection for others, and both age cohorts).

Figure 8. Perceived NPI Effectiveness between Age Group of Interest and General Population

18-26
year olds
(n=889) 27 and
older
(n=3,384)

	18-26 year olds (n=889)	27 and older (n=3,384)
Social distancing for self-protection (% extremely/ very effective)	72.6	65.6
Avoiding groups for self-protection (% extremely/very effective)	87.8	83.8
Masks for self-protection (% extremely/ very effective)	54.8	43.6
Social distancing to protect others (% extremely/ very effective)	79.5	74.1
Avoiding groups to protect others (% extremely/ very effective)	81.7	75.9
Masks to protect others (% extremely/ very effective)	83.9	76.5

Motivators

Respondents were asked what they could learn or hear that may change their behavior. For young adults, the top two responses were that ‘things would get back to normal’ and that ‘it would allow me to do more things I love’. Those were followed by respondents noting that an increase in threat perception for family, friends and self may change their behaviors. Older respondents had similar outcomes and responses to the question. This is important to consider when framing messaging. The return of ‘normality’ is a strong driver for individuals. The idea that this is a ‘long haul’ may be overwhelming for many individuals. Some may respond well to messages about the “new normal” but others are signaling a need for hope and for some things and activities from ‘pre-COVID’ to be returned to them. When people wrote in the survey about what they miss about their life from before COVID-19 the responses were overwhelmingly based on emotion and experiences (Figure 9). There is a strong emotional current of individuals expressing the need to reconnect to their family and friends. The majority of the responses focused on the need for human connection, both physical and emotional.

Figure 9: Word Cloud formed from responses to ‘what do you miss?’



Focus Group Results:

The focus groups largely confirmed much of the quantitative data collected from the survey and gave depth to our understanding of what young adults, and specifically students, were facing currently. When discussing the emotional state that they had been in over the past 6 months the majority of students expressed that they have had high levels of anxiety and increased levels of depression. Multiple students mentioned needing changes in prescribed medications or increases in the expression of previously diagnosed mental disorders, including depression and OCD. This tracks with the survey data showing young adults reporting high levels of feeling depressed, sad, and anxious.

Another theme that emerged was students feeling lost, confused and directionless. Many noted a lack of the ability to plan for anything and a lack of things to look forward to. Confusion emerged from conflicting information as well as being overwhelmed with information. Many students missed classes and had worries over their ability to stay motivated during the upcoming quarter. They also had concerns over their mental health due to the inability to connect and meet other students. "Sustainability" was talked about often. Students expressed that they didn't know how long they, or their peers, could continue to follow social distancing procedures. One student even noted that she "will break by Thanksgiving". Financial anxiety was also talked about at length.

When discussing the ability to incorporate NPIs into their daily routines, the students that openly identified as introverts noted that they felt like that aspect of their lives had not changed much. They liked staying home and only had a few friends that they see regularly anyway. The more extroverted students expressed that they were finding things much harder. The majority of students noted that, while they themselves may be social distancing, they have seen their peers become increasingly 'relaxed'. This relaxation of NPI adherence seemed to stem from challenges faced due to the perceived unsustainability of long-term social distancing combined with a low threat perception on the part of young adults and students. Many noted that messaging often focused on the idea that "if you are young and healthy then you'll be fine". The students in the focus group who complied with social distancing noted that it was often more to protect their loved ones than themselves. This may be important once schools begins, as students will often have significantly less contact with families and therefore threat perception around COVID-19 may become even lower.

Students noted that their choices are more difficult, and life is more stressful. There are new requirements placed on them yet many of their resources have been removed. Most are functionally 'not allowed' on campus and therefore feel separated from the traditional school process. The Rec Center is closed and many noted that it filled an important need in their life, physically and mentally. Students had not yet thought about what studying would look like, if it was going to happen with or without other people. They noted that they hoped professors would not assign group work. Many expressed that they wanted ways to connect to other students in safe, or as safe as possible, conditions. They were also worried about how clubs and activities would continue to function, especially those that required more active 'in person' participation. It was discussed that it is inevitable that students will start hanging out together and that it will be in each other's apartments as there is nowhere else to go.

Students expressed that communication from faculty and other students was more effective than communication from administrations. This was especially true for students at WWU. They felt that communication from administration was almost overwhelming and there was an underlying tone of distrust. Students also noted that much of WWU's communication was from emails that came too often, especially as many students do not check their emails regularly. WWU students felt like requirements were constantly changing, so even when they did feel like they knew what they were supposed to do, they also felt like it may have already changed. This added to their feelings of not being able to plan and increased their anxiety and confusion.

While peer pressure was highlighted as one of the most effective means to get young adults to comply with social distancing measures, many participants admitted a reluctance to engage with their friends on this issue. One student noted that when she does hang out with friends, she has no idea how to navigate the conversation about mask wearing. She said as soon as someone asks, “are we wearing masks?”, she feels tense and doesn’t know how to answer. It is as though the answer, and conversation, is defining their relationship in some way. This tension has caused her to say no to wearing masks in order to, in her mind, appease the other friends and diffuse the, perceived, conflict. One student said she would be embarrassed to be the only one in a group wearing a mask and another talked about her challenges with roommates. She has a different friend group from her roommate and noted that her roommate is more social and likes to go out with groups of people. She has tried to talk to her roommate about this, but she herself does not like conflict. She feels like she is perceived as ‘overreacting’ and that she is troublesome. This aversion to ‘conflict’ seems to drive much of their behavior and lines up with the survey data noting that peer pressure and the actions of others are important in behavior choices.

Discussion

Figure 10: Overview of Key Points for Consideration in Social Marketing Campaign

Strengths	Weaknesses: <i>(Opportunity for education, messaging, and behavior change)</i>	Barriers:	Motivators:
<p>High levels of public NPI compliance</p> <p>Good knowledge level/acceptance of NPI effectiveness</p>	<p>Lack of NPI adherence in private settings</p> <p>Complications of real-world application of NPIs</p> <p>Low threat perception among young adults</p>	<p>High emotional toll</p> <p>Perceptions of unsustainability</p> <p>Lack of motivation, increased confusion</p> <p>Peer/Familial Pressure</p> <p>Aversion to conflict, shortage of interpersonal negotiation skills</p> <p>Lack of resources/ Spaces/ alternate ‘safer’ behaviors</p>	<p>Human connection, emotion</p> <p>Peer pressure, social norms</p> <p>Wanting things back to ‘normal’</p> <p>Want activities back (going out, in person classes, travel)</p>

While NPI adherence in public spaces is high, likely due to state-level policies, self-reported compliance in private spaces is low. Young adults are currently facing much of the brunt of COVID-19. The application of NPIs and social distancing in real world situations is where many young adults are having challenges. That combined with the current lack of resources and emotional support has made effectively incorporating social distancing measures challenging. The same challenges exist with older adults but to a lesser degree. Young adults need and desire messaging from their peers and have expressed that

social norming may assist in supporting healthy decision making. They also need emotional and financial support and an increase in available resources to sustain the behaviors that are being asked of them.

In order to effectively support young adults, as well as other Whatcom residents, it may be time to incorporate harm reduction strategies and guide people on *how* to incorporate social distancing measures in complex situations. Evidence is showing that many people are relaxing their distancing measures and many others don't feel that they can sustain these measures. Rather than remove spaces and resources from students, and others, we need to start addressing how to effectively use those spaces in safer ways. Without 'safer' (not 'safe') spaces they will move to more enclosed and private spaces where social distancing and safety may be eschewed for comfort and connection. In the case of students, with campuses being 'no-go zones' they have no choice but to congregate in private residences where space is tighter and the chance of people wearing masks is likely much less. Campuses should reevaluate removing this massive resource from students and think about how to adapt it to serve students. We have seen similar responses in the restaurant industry. We know indoor spaces are more dangerous, so restaurants have worked to increase outdoor spaces for guests. The same model should be looked at for students and young adults, in general. These activities and adaptations will be instrumental to incorporate into a social marketing campaign, as many people stated that they are tired of being told what they can't do rather than being supported in doing what they can. The campaign must go beyond communication and work to support individuals by removing the obstacles they have in order to achieve the desired behaviors. Messaging will not be enough.

Lastly, the emotional consequence of social distancing is increasingly becoming apparent. People need this emotional cost to be acknowledged, as well as the good that they are doing in following NPI procedures in public. Once this is acknowledged, messaging should pivot to negotiating NPIs in private spaces combined with harm reduction strategies. For most people, social distancing and NPIs are not an "all or nothing" scenario. There are various forms of compliance that are highly situational and often tied to emotional costs. In an effort to curtail transmission, we may be driven to tell people not to travel for Thanksgiving and not to meet their family for a large thanksgiving dinner. That being said, we also need to acknowledge that, after nine months in a pandemic, people WILL travel to see their families this Thanksgiving. Students ARE going to get together to hang out in the fall quarter. We need to pivot away from the 'abstinence only' style of health communication that focuses on the binary, 'all or nothing', application of NPIs. We can promote a message centered on social distancing, such as not going to see your friends and family, but also acknowledge that people will, understandably, make that choice. We then have the option to either stigmatize their behavior as 'bad' and 'wrong' or to assist them in making that choice as safely as possible. Social distancing measures are novel in that they are one of the few public health interventions that become harder and extoll a greater cost the longer that they are practiced. This cost must be calculated into our expectations of behavior moving forward.