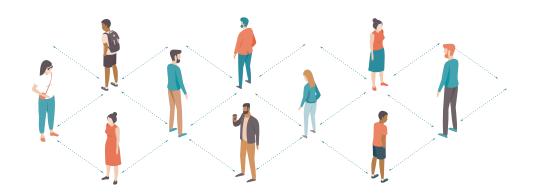


# COVID-19 SOCIAL DISTANCING PROGRAM

FOR POST-SECONDARY EDUCATIONAL INSTITUTIONS





COLLEGE OF MEDICINE

Public Health

Provided by:
Upstate Medical University
Department of Public Health and
Preventive Medicine

Additional resources are available at: **Upstate.edu/publichealth/covid19** 

Developed and Prepared by: Alyssa Indelicato, BA Gary Shmorgon, BS Telisa Stewart, DrPH

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# Disclaimer

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# Authors and Designers

# **Authors**

## Alyssa Indelicato, BA

Ms. Indelicato received her Bachelor of Arts (BA) from SUNY Geneseo. She is currently pursuing her Masters in Public Health degree at SUNY Albany. Ms. Indelicato has experience with grant management related to projects that focus primarily on health education and Alzheimer's disease. In addition to her coordinator role, she serves as an administrator in the Department of Public Health & Preventive Medicine at Upstate Medical University in Syracuse, New York.

#### Gary Shmorgon, BS

Mr. Shmorgon received his Bachelor of Science (BS) in Biochemistry from the University of California, Los Angeles (UCLA). He is currently pursuing his Medical Degree/Masters in Public Health (MD/MPH) at SUNY Upstate Medical University. During his time at SUNY Upstate Medical University, Mr. Shmorgon has been conducting quality improvement projects related to cardiovascular health and the current COVID-19 pandemic. He currently serves on the SUNY Upstate Medical University Admissions Committee and will be beginning his 3<sup>rd</sup> year of medical school this July.

## Telisa Stewart, DrPH

Dr. Stewart received her Masters in Public Health in Health Policy and Management from University of Massachusetts – Amherst and her doctorate in Public Health (DrPH) in Community Health from Drexel University. Her areas of research and expertise include Community-Base Participatory Research (CBPR), program planning, program evaluation, social determinates of health, shared decision making, and rurality. Dr. Stewart is the Assistant Director of the Masters of Public Health program at Upstate Medical University in Syracuse, New York. She is also an Associate professor in Public Health and Preventive Medicine, Urology, and Geriatrics. Her previous work experiences include being the Director of Community Health at Dartmouth-Hitchcock Medical Center and the Chief and Epidemiologist for the Lead Poisoning Prevention Program for the Vermont Department of Health.

#### Designers

#### Leah Caldwell

Ms. Caldwell is AVP for Marketing & University Communications at SUNY Upstate. She has won many awards for her work and earned both the President's and Chancellor's Awards for Professional Service. Prior to her state service, she ran a communications business with a wide range of clients from non-profit to industry.

#### Dan Cameron

Mr. Cameron is an award-winning graphic designer who offers expertise in electronic and traditional media. At Upstate he designs ad campaigns and pieces for its colleges and hospital. Prior to SUNY Upstate, Cameron was an art director at a newspaper and a creative director for a publisher.

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For more information on the contents in this document, please contact Dr. Telisa Stewart at StewartT@Upstate.edu

# **Public Health**

### Introduction

Public health is "the science and art of preventing disease, prolonging life, and promoting health through the organized efforts and informed choices of society, organizations, public and private communities, and individuals." — CEA Winslow

Advances in public health (population health) have helped prevent disease (disease prevention) and have helped people achieve their highest level of optimal health (health promotion). Public health seeks to provide groups of people with the right to be healthy and live in conditions that support that health. Public health aims to provide maximum benefit for the largest number of people. (WHO) Public health is grounded in evidence-based methods – methods that have been tested over time and have shown to be effect through scientific inquiry. Public health core sciences include epidemiology (study of infection), surveillances (analysis of data), prevention effectiveness (impact of intervention), informatics (data), and laboratory (focus on health status).

Public health focuses on 10 essential public health services to accomplish its goals: 1. Monitor Health 2. Diagnose and Investigate 3. Inform, Educate, Empower 4. Mobilize Community Partnership 5. Develop Policies 6. Enforce Laws 7. Link to/Provide Care 8. Assure a Competent Workforce 9. Evaluate 10. Research. To accomplish an intended gold, public health practitioners leverage partners/stake holders within the community. Partners/Stakeholders may include clinical care delivery systems, employers and business, the media, academia, government agencies and other public health infrastructure, and the community.

Health is defined as "state of complete physical, mental, social wellbeing rater then the mere absences of disease" (WHO) Health is determined by complex interactions and determinates of health. Determinates of health include: genes and biology, health behaviors, social or societal characterizes, and health services or medical care. These complex interactions need multiple different interventions to make a change.

#### Overview of Tools in Public Health

There are a few key tools in public health that should be consider when addressing a public health issue.

# a. The Logic Model

The Logic Model is a graphic depiction (road map) that presents the shared relationships among the resources, activities, outputs, outcomes, and impact for your program. It depicts the relationship between your program's activities and its intended effects. For more information on logic models please go to <a href="https://www.cdc.gov/eval/logicmodels/index.htm">https://www.cdc.gov/eval/logicmodels/index.htm</a>. Please find a blank logic model in Appendix A: Blank Logic Model.

#### b. Theories, Models, and Frameworks

Effective public health programs can help people maintain and improve their overall health, reduce risk of disease, and manage existing illness. To improve the well-being of individuals, families, organizations and communities, behavior change is needed at many levels. Such levels may include individual, intra-personal, and community, which includes institutional factors as well as existing policies.

Not all health programs are successful in achieving the desired behavior change. Those most likely lead to desired outcomes are based on an understanding of targeted health behaviors, and the environment in which they occur. Public Health is based on evidence-based models and theories that have been strategically developed and proven to be effective over time through evaluation.

For a comprehensive overview of evidence-based theories and models, please refer to *Theory at a Glance: A Guide for Health Promotion Practice*.<sup>1</sup>

### COVID-19

Coronavirus (COVID-19) is an illness caused by a virus that is spread from person to person. The virus is a new virus that is spreading throughout the world. The symptoms of the COVID-19 range from no symptoms to severe illness. People become infected by coming into contact with a person who has COVID-19. The person becomes infected through respiratory droplets when an infected person coughs or sneezes or touches a surface that has the virus on it and then touches their mouth, nose, or eyes. There is currently no vaccine to protect against COVID-19 and there is currently not cure. The best way to protect yourself is to avoid being exposes to the virus. Social distancing, handwashing, wearing a face mask, and disinfecting frequently touched surfaces can help protect yourself from yourself and others from COVID-19. People who are sick should stay at home, avoid public transportation, and separate themselves. Anyone one is at risk, however, older adults and people with certain chronic illnesses are more at risk for sever illness.

# **Social Distancing**

# **Program Overview**

The social distancing program has been designed and adapted for college/university communities and is specifically targeting the behavior of social distancing during the COVID-19 pandemic. The program contains a virtual binder which contains a step by step guide on implementing the program and resources (digital messaging). Decisions on how to implement the program should be based on institutional resources, populations current behaviors and understanding of the need for the behavior, and the threat of infection.

An educational campaign on social distancing pairs the idea that COVID is a germ that an individual doesn't want with the concept that an individual person can stop the spread of COVID by social distancing. You need both of these concepts with the knowledge and the behavior to have a successful campaign.

The program is presented as an entire package; however, organizations can take components of the program as they see fit. We recommend the messages stay together as a series. The behavioral intervention can be utilized as a menu of options. We recommend that several behavioral interventions strategies be leveraged over the course of the intervention.

The program was designed using the CDC, WHO, and other federal information readily available to the general public. In addition, a literature search as conducted and research and program plan and evaluation literature were used to create this document. Please see the reference list for additional details. To our knowledge, there is not a COVID-19 evidence-based social distancing campaign available. This program uses evidence-based materials or materials considered to be standard campaigns for social distancing. The program used their foundation and alters them to meet the COVID -19 pandemic needs and the culture of college campuses.

In addition, to the publicly available information, research, and the program planning and evaluation literature, the program also takes into account several standard tools in public health that include: Logic Models, Health Belief Model, Social Math, Manage Risk Perception, Health Communication and Social Marketing.

<sup>&</sup>lt;sup>1</sup> https://cancercontrol.cancer.gov/brp/research/theories\_project/theory.pdf

# Logic Model

The program was developed using a logic model. The logic model connects the activities with an outcome. It provides a "birds eye" view of the program. The logic model outlines the resources, activities, outputs, outcomes, rationale, and assumptions of the program. Please refer to the document in Appendix B: Preventing COVID-19 Overview and Appendix C: Social Distancing Logic Model.

### Health Belief Model

The program used the Health Belief Model (HBM) as the theoretical model. The HBM can be used to guide the development of health promotion and disease prevention programs. It is used to explain and predict individual changes in health behaviors. Key elements of the Model focus on individual beliefs about health conditions, which may predict individual health-related behaviors. The model defines the key factors that influence health behaviors through six constructs. Please see Table 1: Health Belief Model below.

Table 1: Health Belief Model

Constructs of the Health Belief Model	Definition of Construct	Example of Messages Targeting Construct
Perceived Susceptibility	An individual's beliefs about the likelihood of getting a disease or condition	You can stop the spread. College students are getting COVID.
Perceived Severity	An individual's beliefs about the seriousness of contracting a disease or condition, including consequences	Do you have COVID? Contact your healthcare provider if you have these symptoms: fever, cough, fatigue, shortness of breath
Perceived Benefits	An individual's beliefs about the effectiveness of a given action to reduce risk of a specific condition	Of course it works! Social distancing measures help flatten the curve
Perceived Barriers	An individual's beliefs about obstacles to performing a behavior	There are plenty of places to study. If it gets crowded try studying outside or find an open space
Cue to Action	Internal or external factors that activate or motivate a person to take action	Avoid others at the grocery store. Shop online instead.
Self-Efficacy	An individual's beliefs that one can perform the recommended behavior (confidence)	There are plenty of places to study! If it gets crowded try studying outside or find an open space

### Social Math

Whenever possible social math was utilized to help participants understand hard to grasp concepts/numbers. Social math is a practice that uses easy to visualize comparisons to make large numbers comprehensible and compelling. The program picked comparisons that are relatable, funny, shocking, etc. One example of social math being used in the program – "What is 6 feet? The length of a bike or the length of a dorm room bed." It's important to use comparison that are culturally appropriate, for example, if the population likes sports the program can be altered to use sports references as the comparisons.

# Manage Risk Perception

The program targeting risk perception (an individual's perceived susceptibility to a threat). Feeling like you are at a low risk for contracting COVID at this point will lead to a decrease in proper social distancing. The program used messages like, "Shop smart. Avoid others in the grocery store. COVID can spread across rooms and linger in the air for 20 minutes. Shop online instead". It's important to educate students that COVID is here and it's circulating and everyone is at risk.<sup>2</sup> We also highlighted students who can have COVID and feel fine, but not everyone who contracts COVID will have the same reaction. Students can pass it to their friends and family members can get sick and possibly die, even if they themselves felt fine.<sup>3</sup>

## Health Communication and Social Marketing

Health Communication is the study and use of communication strategies to inform and influence decisions and actions to improve health. Social marketing: Health Communication approach used to develop activities aimed at changing or maintaining people's behavior for the benefit of individuals and society as a whole. Fliers with educational information, highlights protecting family and friends, "Keep your roommate safe. Students who live in dorms are in close contact with each other. Be considerate of your roommate and give them space." Fliers must be catchy and fun, and relevant to the audience. Example- Would you like a side of COVID with that? <sup>4</sup> Example- Funny and catchy message campaign<sup>5</sup>

<sup>&</sup>lt;sup>2</sup> https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200306-sitrep-46-covid19.pdf?sfvrsn=96b04adf\_4#:~:text=For%20COVID%2D19%2C,infections%2C%20requiring% 20ventilation

<sup>&</sup>lt;sup>3</sup> https://wwwnc.cdc.gov/eid/article/7/2/70-0234 article

<sup>&</sup>lt;sup>4</sup> https://www.cdc.gov/coronavirus/2019-ncov/community/colleges-universities/considerations.html

<sup>&</sup>lt;sup>5</sup> https://www.mmm-online.com/home/channel/letsflattenthecurve-creative-to-inspire-social-distancing-during-covid-19/

# **Program Components**

# Program Goal

The program goal is: To decrease COVID transmission using social distancing among college students returning back to campus

### Rationale

The program rational is center around the research that social distancing prevents the spread of disease. <sup>67</sup>

### Resources

Resources are needed for the intervention. Resources may include:

- Campus resources: A-frames, parking lots, technology, posters, personnel, media outlets, bulletin board, bathroom stalls/mirrors/walls, printers, financial, marketing team, agent of change, etc.
- Public Health Team
- Campus Leadership

# **Program Activities**

There are three different program activities: Educational Campaign, Behavioral intervention, and policy implementation. Please see below for the activity details.

<sup>6</sup> https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html

<sup>7</sup> https://journals.lww.com/jphmp/Abstract/9000/Social\_Distancing\_Metrics\_and\_Estimates\_of.99258.aspx

# **Educational Campaign**

The educational campaign covers awareness, and knowledge. Awareness and knowledge need to be obtained to achieve a behavior. In addition, the messages are designed to target the different components of the health belief model and for an extended period of time (8-12 weeks minimum for effectiveness). Education alone doesn't change behavior. The educational campaign needs to be paired with a behavioral intervention to be effective. The educational campaign contain 15 different messages over 15 week period of time. Please see Table 2: Educational Messages. The messages are provided in this document and a digital version of the materials are paired with this document. The messages should be aggressively displayed throughout the facility and aggressively targeting in locations where people are a captive audience. For example, this may include locations like restrooms, academic buildings, libraries, residence halls, sitting areas, etc.

# **Educational Messages**

Table 2: Educational Messages

Display each week	Message	Additional Resources
Week 1	Stop COVID! Stay Safe and Give Space. Social Distance Avoid crowds  • Keep your distance to protect yourself from getting sick	<ul> <li>https://www.cdc.gov/coronavirus/2019- ncov/prevent-getting-sick/social-distancing.html</li> <li>https://www.healthychildren.org/English/health- issues/conditions/COVID-19/Pages/Social-Distancing- Why-Keeping-Your-Distance-Helps-Keep-Others- Safe.aspx</li> </ul>
Week 2	Stop COVID! Stay Safe and Give Space. Social Distance What is 6 feet?  • The length of a bike • The length of a dorm room bed	<ul> <li>https://www.cdc.gov/coronavirus/2019- ncov/prevent-getting-sick/social-distancing.html</li> <li>https://www.hopkinsmedicine.org/health/conditions- -and-diseases/coronavirus/coronavirus-social- distancing-and-self-quarantine</li> </ul>
Week 3	Stop COVID! Stay Safe and Give Space. Social Distance Protect yourself from droplets containing COVID  Coughs, sneezes, or conversations release viral droplets in the air Keep 6 feet apart	<ul> <li>https://www.cdc.gov/coronavirus/2019- ncov/prevent-getting-sick/social-distancing.html</li> <li>https://www.forbes.com/sites/victoriaforster/2020/0 4/20/is-6-feet-apart-really-enough-physical- distancing-during-the-coronavirus- outbreak/#1b647c34111d</li> </ul>
Week 4	Stop COVID! Stay Safe and Give Space. Social Distance Don't be a super spreader!  • One infected person could pass it to 2 or 3 others nearby  • Keep 6 feet apart	https://labblog.uofmhealth.org/lab-report/how- quickly-does-coronavirus-spread

Week 5	Stop COVID! Stay Safe and Give Space. Social Distance They look fine but they're not!  • 1 in 4 infected people don't show symptoms but are contagious  • Keep a safe distance from people	<ul> <li>https://www.sciencealert.com/here-s-what-we-know-so-far-about-those-who-can-pass-corona-without-symptoms</li> <li>https://www.chicagotribune.com/coronavirus/ct-nw-nyt-coronavirus-no-symptom-disease-spread-20200401-dewuie2bnrczrh2ukitr63cpce-story.html</li> </ul>
Week 6	Stop COVID! Stay Safe and Give Space.  Social Distance  You can stop the spread  • College students are getting infected  • Keep your space	<ul> <li>https://www.cnn.com/2020/06/22/health/covid-younger-adults-lower-death-rate-trnd/index.html</li> <li>https://www.businessinsider.com/30-percent-us-coronavirus-cases-people-between-ages-20-44-2020-3</li> </ul>
Week 7	Stop COVID! Stay Safe and Give Space. Social Distance Do you have COVID? Keep your distance  Contact your healthcare provider if you have these symptoms:  Fever Cough Fatigue Shortness of breath Or think you've been exposed contact your healthcare provider	<ul> <li>https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/ whosteps-when-sick.html</li> <li>https://www.health.harvard.edu/diseases-and-conditions/covid-19-basics</li> <li>https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/coronavirus-symptoms-frequently-asked-questions</li> </ul>
Week 8	Stop COVID! Stay Safe and Give Space. Social Distance Less than 6 feet- wear a mask  • You may need to get close- protect yourself with a mask	<ul> <li>https://www.cdc.gov/coronavirus/2019- ncov/prevent-getting-sick/prevention.html</li> <li>https://www.who.int/emergencies/diseases/novel- coronavirus-2019/advice-for-public</li> <li>https://www.health.com/condition/infectious- diseases/coronavirus/when-do-you-have-to-wear-a- mask</li> </ul>
Week 9	Stop COVID! Stay Safe and Give Space. Social Distance Would you like a side of COVID with that?  • Keep a safe distance in the dining halls and waiting in line for food  • Try sitting outside and enjoying your lunch	https://www.cdc.gov/coronavirus/2019- ncov/community/colleges- universities/considerations.html

Week 10	Stop COVID! Stay Safe and Give Space. Social Distance Keep some space!  • You're not just meeting your friends.  • You're also meeting their infected friends and roommates who haven't avoided people	<ul> <li>https://www.cdc.gov/coronavirus/2019-ncov/community/colleges-universities/considerations.html</li> <li>https://www.forbes.com/sites/brucelee/2020/03/21/social-distancing-101-for-covid-19-coronavirus-here-are-the-dos-and-donts/#e39584b2dd63</li> <li>https://www.mmm-online.com/home/channel/letsflattenthecurve-creative-to-inspire-social-distancing-during-covid-19/</li> </ul>
Week 11	Stop COVID! Stay Safe and Give Space. Social Distance Keep your roommate safe!  • Students who live in dorms are in close contact with each other  • Be considerate of your roommate and give them space	https://www.cdc.gov/coronavirus/2019-ncov/daily- life-coping/shared-housing/index.html
Week 12	Stop COVID! Stay Safe and Give Space. Social Distance Study Smart- Sit away from others  There are plenty of places to study!  If it gets crowded try studying outside or find an open space	https://www.cdc.gov/coronavirus/2019- ncov/community/colleges- universities/considerations.html
Week 13	Stop COVID! Stay Safe and Give Space. Social Distance Shop Smart.  Avoid others at the grocery store. COVID can spread across rooms and linger in the air for 20 minutes Shop online instead	<ul> <li>https://www.cdc.gov/coronavirus/2019- ncov/downloads/2019-ncov- factsheet.pdf#:~:text=COVID%2D19%20is%20primaril y,nose%2C%20or%20eyes.</li> <li>https://innovationorigins.com/this-is-how-the-sars- cov-2-virus-spreads-through-indoor-air/</li> </ul>
Week 14	Stop COVID! Stay Safe and Give Space. Social Distance Choose Virtual Meetings Instead!  If you hold in-person meetings - Keep it small - Find a large space - Keep your distance	https://www.rhodes.edu/coronavirus- updates/Social-Distancing-Recommendations
Week 15	Stop COVID! Stay Safe and Give Space. Social Distance Of Course It Works!  Social distancing measures help flatten the curve	<ul> <li>https://www.syracuse.com/coronavirus/2020/04/cha rts-map-show-how-coronavirus-curve-is-flattening-in- ny-sunday-april-19.html</li> <li>https://bmcpublichealth.biomedcentral.com/articles/ 10.1186/s12889-018-5446-1</li> </ul>

# **Supplemental Educational Campaigns**

Supplementing the educational campaigns are presented below and have been tested and shown to be effective to improve the knowledge around social distancing. The programs include: Peer to Peer, Goal Setting with Educational Tools, Psychology Teaching Model, CDC: Social Media Tools, Guidelines & Best Practices. Details and references for the different programs are detailed in Table 3: Supplemental Educational Campaigns below.

Table 3: Supplemental Educational Campaigns

Campaign	Summary	Intervention	Knowledge Obtained	Reference
Peer to Peer	Use of peers, leaders, and management to demonstrate/enco urage behavior	Important that activities span all levels of the industry, all shifts, etc. Middle management can bridge senior management and hourly employees	Leads to increase of adherence to behavior among other employees (can be applied to students as well)	https://www.ncbi.nlm.nih.g ov/pmc/articles/PMC57706 33/
		The more managerial involvement there is, the greater the likelihood of achieving a sense of ownership which can lead to a lasting and sustained commitment.		
		Suggested Modification: Important that activities span all levels of the university from students to administration. Middle management can bridge senior management and hourly employees		
Goal setting with Educational Tools	Distribution of information paired with goal setting lead to changes in knowledge/behavior	College- based obesity prevention program provided information about nutrition using web-based platform, inperson interactions, handouts, and personal counseling while asking students to set personal goals	This will lead to an increase in awareness and knowledge but will not lead to behavior changes long term	https://www.countyhealthr ankings.org/take-action-to- improve-health/what- works-for- health/strategies/college- based-obesity-prevention- educational-interventions
		Suggested Modification: Similar campaign can be used for social distancing on college campuses!		

	T	T		
Psychological	Utilize a laboratory	Using a form of classic	Increase in	https://pubmed.ncbi.nlm.ni
Teaching	session to associate	conditioning by pairing	awareness and	h.gov/25581703/
Model	condom usage as a	images of condoms with	behavior usage of	
	positive concept	either positive or neutral	condoms. Can easily	
		images. The campaign	be applied to masks	
		hoped to elicit positive	in a similar fashion by	
		feelings about condom	substituting the	
		usage.	condom image with a	
			social distancing	
		Suggested Modification:	image.	
		The same form of		
		conditioning can be		
		applied to images of		
		people staying home or		
		using virtual platforms for		
		socializing instead		
CDC: Social	Social media toolkit	Messaging focused on key	This will lead to	https://www.cdc.gov/coron
Media Tools,	aimed at targeting	areas, including: put space	increase in	avirus/2019-
Guidelines &	audiences using	between yourself and	awareness, but will	ncov/communication/social
Best Practices	strategic and	others, measuring 6 feet	not lead to long-term	-media-toolkit.html
	effective materials/	distance	behavior change	
	resources		among all individuals	
		Suggested Modification:		
		Tailor and use messages		
		with university social		
		media pages		

# Behavioral Interventions

Behavioral interventions require knowledge and skills. The knowledge is transferred into a behavior using a behavioral intervention. Behavioral interventions follow an educational program. There are many different evidence-based behavior interventions. The social distancing program has identified evidence-based interventions that have proven to be effective. Below is an outline of the 10 number of behavioral interventions: Behavioral Contracting Intervention, Visual Cues Intervention, Social Factors Intervention, The Affiliation Intervention, Decision Prompts Intervention, Peer Educator Learning Intervention, Gamification Intervention, Social Support Intervention, and the Individual Adapted Health Behavioral Change Intervention.

- 1. Background: Behavioral contracting is an intervention technique where individuals agree to behavior changes with defined rewards for adherence
  - a. Types of rewards may include guaranteed financial payments, lottery chances for monetary prizes, gift cards etc.
- 2. Steps for Social Distancing Competition Among Student Groups
  - a. Decide on an incentive
    - i. The student group/organization who displays the most effort towards social distancing will receive extra meal credits, gift card for the bookstore, coverage for an apparel order, etc.
  - b. Decide how you will measure
    - i. Compare organizations on various factors (i.e. were more virtual meetings held than in-person meetings?)
    - ii. If in-person meetings were held did group members socially distance? Did the organization report that desks were at least 6ft apart? Do they have visual reminders to stay socially distanced? Do they limit how many people can be in their meeting space? Were meetings staggered?
    - iii. Create a sheet for organizations to fill out and report what social distancing measures they have implemented. Ask them to include as much detail as possible.
  - c. Recruit groups
    - i. Distribute emails/display flyers prior to intervention providing the social distancing incentive and how to participate
    - ii. Market which organizations around campus have signed up
    - iii. Delegate who will oversee the competition, hang flyers/send emails
  - d. Continue the competition over a period of time (half a semester or a whole semester)
    - i. Make sure organizations are keeping record of how much they socially distance
  - e. Choose winners based on reports sent in from organizations
    - i. The organization with the most social distancing measures will win
  - f. Marketing campaign
    - i. Highlight the organization who has won, what they have done, and encourage others to follow
- 3. Messaging: There are three main messages that are associated with this intervention.
  - a. Introductory Message
    - i. Do you care about keeping your friends safe from COVID? Do you want to win a gift card and bring recognition to your club, student group, or organization? Stay tuned and enter your organization in a competition to see who social distances the most!
  - b. Explanatory Message
    - i. The group who stays the most socially distanced wins a gift card! Go to your student union to enter. Tell us how many virtual activities you've held and how you've stayed socially distanced!
  - c. Concluding Message
    - i. Thank you to all of the student groups who have participated and for doing your part in keeping our campus safe from COVID. Congratulations to [insert organization] for winning the competition!
- 4. Literature Review
  - a. Work based-incentives and competitions to reduce tobacco use to individual workers/teams to motivate them to participate in programs. Rewards can vary based on participation, behavior change or both.

b. Rewards can be provided for participation, for success in achieving a specified behavior change, or for both (join program and try to quit, fewer cigarettes smoked, quitting altogether, all of the above)<sup>89</sup>

- Leeks KD, Hopkins DP, Soler RE, Aten A, Chattopadhyay SK; Task Force on Community Preventive Services.
   Worksite-based incentives and competitions to reduce tobacco use. A systematic review. Am J Prev Med.
   2010;38(2 Suppl):S263-S274.
- Allen, Sherri MSN, RN, PCCN; Cronin, Sherill Nones PhD, RN-BC Improving Staff Compliance With Isolation
   Precautions Through Use of an Educational Intervention and Behavioral Contract, Dimensions of Critical Care
   Nursing: September/October 2012 Volume 31
- <u>Task Force on Community Preventive Services. Recommendations for Worksite-Based Interventions to Improve</u> Worker's Health Taskforce on Community Preventive Services. Am J Prev Med. 2010;38(2S):S232-S236

<sup>&</sup>lt;sup>8</sup> https://www.thecommunityguide.org/findings/tobacco-use-and-secondhand-smoke-exposure-incentives-and-competitions-increase-smoking-cessation-workers-combined-additional-interventions

<sup>&</sup>lt;sup>9</sup> https://www.thecommunityguide.org/sites/default/files/assets/Tobacco-Incentives-Competitions-Increase-Smoking-Cessation-Among-Workers-Alone.pdf

- 1. Background: Visual cues are signals or reminders that gain attention of individuals. Visual cues can serve to increase awareness.
- 2. Steps
  - a. Determine places on campus that are typically crowded
    - i. Library, dining halls, student unions, residence halls, mailroom, gyms, etc.
  - b. Identify specific areas within these locations where students congregate. This could include:
    - i. Lines at the information desks in the library, lines where students wait in the dining hall, and student unions
  - c. Place stickers on the floor as markers to indicate what is considered six feet apart
    - i. Repeat this in less crowded areas as reminders to stay distanced
    - ii. https://socialdistancingstickers.com/?gclid=Cj0KCQjwoub3BRC6ARIsABGhnyYzji\_851gnVpH4JyboKffeXWNI5vfGIE1NtXdriowE08A6Ne0NZyoaAmjTEALwwcB
  - d. In more closed in spaces such as elevators, place a sticker or "X" that are 6 feet apart to indicate where you should stand
  - e. Assign directional flow for hallways
    - i. Place arrows on floor as directional flow indicators
    - ii. For bi-directional hallways, use messaging to maintain a 6 foot distance
  - f. Assign directional flow for stairwells
    - i. Place arrows on walls and floor to assign directional flow (e.g. only up)
    - ii. For bi-directional stairs, have foot traffic move only in one direction at a time (e.g. allow down traffic to use stairs prior to walking up, and vice-versa)
- 3. Messaging: There are three main messages that are associated with this intervention.
  - a. Introductory Message
    - i. Stay social connected while also staying safe! Lookout for stickers placed around a campus indicating what is six feet apart.
  - b. Explanatory Message
    - i. Use the stickers you see around campus floors for guidance to protect yourself and stay a proper six feet distance away from others.
  - c. Concluding Message
    - i. The stickers may be gone, but doesn't that entirely mean that COVID is! Continue to social distance and stay at least six feet apart.
- 4. Literature Review
  - a. Towel hanging and ready for individual, no activation required (i.e. not automatic dispenser that requires hand wave). Led to increase in both towel and hand soap consumption.
  - b. Study used the weight of soap consumed as an indicator of soap usage
  - c. Towel use was 22.6% higher and soap was 13.3% higher when the dispenser presented the towel without user activation than when activation was required. This shows visual cues can increase hand washing compliance<sup>10</sup> 11

<sup>&</sup>lt;sup>10</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4167083/

<sup>&</sup>lt;sup>11</sup> https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD005186.pub4/full

- Whitby M, Pessoa-Silva CL, McLaws ML, et al. Behavioural considerations for hand hygiene practices: the basic building blocks. *J Hosp Infect*. 2007;65(1):1-8.
- <u>Is the main message emphasized with visual cues? Centers for Disease Control and Prevention. Published August 11,2014.</u> Accessed June 11, 2020. https://www.cdc.gov/ccindex/tool/page-3.html
- Pittet D. Improving adherence to hand hygiene practice: a multidisciplinary approach. Emerg Infect Dis. 2001;7(2):234-240.
- Nevo I, Fitzpatrick M, Thomas RE, et al. The efficacy of visual cues to improve hand hygiene compliance. Simul Healthc. 2010;5(6):325-331.

- 1. Background: Using social factors (things that influence an individual's personality, attitude, and lifestyle) to change behavior
  - a. Activities include behavioral counseling, skill-building activities, rewards/reinforcement, and inclusion of co-workers or family members to build support systems, and changes to physical or organizational structures that make healthy choices easier and target the entire workforce
  - b. Visual cues can be paired with other changes to the physical environment to target social factors

#### 2. Steps

- a. Determine which social factor you want to target
  - i. Target the student's feelings towards their friends, family, and campus community. It is the student's responsibility to keep everyone safe, not just themselves.
  - ii. If students want to continue to keep their campus community safe, they should continue to social distance.
- b. Make changes to the physical environment to ensure social distancing
  - i. In bathrooms, block facilities as necessary to increase distancing. For example, block every other bathroom stall or sink
  - ii. In classrooms, relocate desks and chairs to ensure 6 foot distancing guidelines. Do not allow students to move the chairs. In larger lecture halls where chairs cannot be moved, place tape (a large X) on desks indicating where students should not sit. You can also place a "social distancing" stickers or signs on desks where student should not sit.
  - iii. In dining areas, remove tables that are near each other or block every other table off
    - 1. Limit the amount of students allowed in the dining halls
    - 2. Limit the amount of students allowed at each table
  - iv. In the library, block every other table off. Use social distancing stickers to indicate which table students can sit
    - 1. Limit the amount of students allowed per table (this can be designated by floor)
  - v. In the gym, block off equipment that is close together or place stickers on equipment to indicate which machines to use
    - 1. Limit the amount of students allowed in gym facilities at a time
    - 2. Also place "X's" or stickers in matted areas to indicate where they should do floor exercises
  - vi. In resident halls and student living quarters, remind students to think about what they can do in individual dorms to stay distanced
    - 1. Common rooms and kitchen areas should have markers of where to sit and eat and stand.
- c. Decide whether to pair physical environment and organizational changes with messaging
  - i. Example could include "Social distance to keep your campus open!" or "Protect your friends. Social distance."
  - ii. <a href="https://characterlab.org/tips-of-the-week/wash-your-hands-for-grandma/?utm\_source=Character+Lab+-+Email+List&utm\_campaign=c9c247c3bc-TOTW%3A+Wash+Your+Hands+for+Grandma&utm\_medium=email&utm\_term=0\_4810b42811-c9c247c3bc-256035449</a>
- d. Design messaging materials in house or with a graphic design team
- e. Reorder materials from step B as needed
- 3. Messaging
  - a. Introductory Message
    - i. You will see some changes around campus this semester. These are to ensure we are social distancing in our community.
  - b. Explanatory Message

- i. We have marked different areas around campus to follow proper social distancing guidelines. Pay attention to these signs and follow them to keep your college safe!
- c. Concluding Message
  - i. Keep social distancing to prevent any flare up of COVID on campus!

#### 4. Literature Review

a. Worksite nutrition and physical activity programs designed to improve health behaviors. Examples
include information and education, activities that target thoughts, and making healthier foods more
available 1213

- https://www.thecommunityguide.org/stories/investing-worksite-wellness-employees
- https://www.thecommunityguide.org/sites/default/files/assets/OnePager-WorkPrograms.pdf
- CDC. Public Health Strategies for Preventing and Controlling Overweight and Obesity in School and Work
   Settings. A report on recommendations for the Task Force on Community Preventive Services. 2005;54
   (RR10);1-12.
- Archer, W.R., Batan, M.C., Buchanan, L.R., Soler, R.E., Ramsey, D.C., Kichhofer, A. & Reyes, M. (2011).
   Promising Practices for the Prevention and Control of Obesity in the Worksite. American Journal of Health Promotion, 25(3),e12-e26.
- <u>Task Force on Community Services</u>. A recommendation to improve employees weight status through worksite health promotion programs targeting nutrition, physical activity, or both. American Journal of <u>Preventive Medicine</u>. 2009;37(4):358-9
- Anderson, LM. Quinn TA, Glanz K. et al. The effectiveness of worksite nutrition and physical activity interventions controlling employee overweight and obesity: a systematic review. American Journal of Preventive Medicine. 2009;37(4):340-57.

<sup>12</sup> https://www.thecommunityguide.org/findings/obesity-worksite-programs

<sup>&</sup>lt;sup>13</sup> https://www.thecommunityguide.org/sites/default/files/publications/obesity-ajpm-evrev-worksite-nutrition-pa.pdf

- 1. Background: Emotional drivers can be used to create behavior change. Emotions drive behavior, resulting in individuals being more or less likely to do something because of the way they feel at a given moment. Drivers may include disgust (the desire to avoid and remove contamination), affiliation (desire to fit in with what others in a reference group are perceived to be doing), and habit.
  - a. Interventions that are designed to promote health behaviors can be strengthened by appealing to people's affiliation needs. Affiliation support-based interventions are more effective and have longer lasting benefits on health behaviors than traditional programs.

#### 2. Steps

- a. Implement activities in residence halls to encourage students across these living facilities to participate. If their friends are doing it in their residence hall, they will want to as well.
  - i. Activities can be implemented per residence hall or between residence facilities. Each activity can be done while social distancing. They encourages students to get involved (increase sense of belonging) while encouraging everyone to keep a safe distance from one another
  - ii. Noodle/Balloon hats
    - 1. Have students create hats that have pool noodles or balloons that stretch 6 feet out from the hat. This will serve as a marker for how far apart you should stay from others.
    - 2. Encourage students to wear their hats. Have student make these and host a "social distance party." Get noodles/balloons that are school colors.
    - 3. https://www.cnn.com/2020/05/15/europe/german-cafe-noodle-distancing-scli-intl-grm/index.html
  - iii. Yoga on quad
    - 1. Students should bring their own yoga matts and space them 6 feet apart
  - iv. Cornhole tournament
    - 1. 27 feet of space is required to throw from one cornhole box to another. Set up each box with at least 6 feet of space next to each other
    - 2. Teams can sign up in their residence hall
    - 3. Supplies needed: cornhole board and 4 bean bags for each board
    - 4. https://www.cornholehowto.com/how-to-play/
  - v. Weekly movie night
    - 1. Pick a designated night to encourage residents to stay in and watch a movie on their laptop or TVs. Themes can be pick each week and marketed. For example, have a retro movie night or a Marvel movie month. In dorms, RA's can provide snacks in the kitchen for residents to have during the movie
  - vi. Pumpkin carving
    - 1. During the Fall, carving a pumpkin can be done per residence hall floor. This can be done outside and students can carve with 6 feet of space between them
- b. Decide which activity to host and when (weekends, weeknights, etc.)
- Encourage student groups and organizations to host similar social distancing activities
- d. Market the events and decide whether to combine with messaging materials
- 3. Messaging
  - a. Introductory Message
    - i. Lookout the next couple of weeks for a variety of social distancing activities! We hope to see you there!
  - b. Explanatory Message
    - Want to stay socially connected with your friend while staying safe too? There are a variety of social distancing events being held! Check with your residence hall to see how you can get involved.
  - c. Concluding Message

i. Continue to some of these activities with to protect yourself from COVID while still hanging out with your friends!

#### 4. Literature Review

- a. Intervention included community and school-based events incorporating an animated film, skits, and public pledging ceremonies to improve hand washing
- b. At 6 months there was a 37% difference in the hand washing group compared to the 6% difference in the controlled group. <sup>14</sup>

- https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(16)30310-2/fulltext
- Briscoe C, Aboud F. Behavior change communication targeting four health bevaiours in developing countries: a review of change techniques. *Soc Sci Med.* 2012;75(4):612-621.
- https://eiuperspectives.economist.com/sites/default/files/PreventativeCareandBehaviouralScience.PDF
- Winch PJ, Thomas ED. Harnessing the power of emotional drivers to promote behaviour change. *Lancet Glob Health*. 2016;4(12):e881-e882.
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3225964/#R81

<sup>&</sup>lt;sup>14</sup> https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(13)70160-8/fulltext

### **Decision Prompts Intervention**

- Background: Point-of-decision prompts are motivational signs placed near area where an individual has a choice between two behaviors. These prompts are most effective when they are tailored to specific benefits or populations; for example, signs may inform individuals about a health or weight-loss benefit from taking the stairs and remind individuals already predisposed to becoming more active, for health or other reasons, about an opportunity at hand to do so.
  - a. Prompts can be paired with other changes to the physical environment, such as placing footprint stickers on the ground leading from the elevator to the stairwell or painting the stairwell to make it more welcoming.

# 2. Steps

- a. Determine the point of decision you would like to target.
  - i. For social distancing, this decision point comes as individuals are in close proximity to others or in congregated areas
- b. Decide what your messaging will be.
  - i. The decision is to social distance or not to social distance, so messaging needs to focus on the benefits/consequences of this decision
  - ii. Example could be "1 in 4 people with COVID don't show symptoms but are contagious. You could be the one. Social distance."
- c. Determine whether additional changes are needed in the area where the decision is to be made
  - i. Stickers/decals on the floor or walls in these areas
    - 1. https://www.amazon.com/floor-stickers/s?k=floor+stickers
- d. Create your messages either in-house or with a graphic design team. Order additional supplies as determined by Step C.
- e. Post your messages and make additional changes such as adding stickers in your point of decision areas.
- 3. Messaging: There are three main messages that are associated with this intervention.
  - a. Introductory Message
    - i. There are some changes around campus this year. Look out for different signs as reminders that we should be social distancing!
  - b. Explanatory Message
    - i. Our campus has been updated to help encourage social distancing. Please remember to stay at least 6 feet apart from others.
  - c. Concluding Message
    - i. We encourage you to continue social distancing and avoid large crowds or congregated areas on campus to be safe!

#### 4. Literature Review

- a. Signs on or near stairwells, elevators, and escalators to encourage individuals to use stairs (to lead to increase in physical activity)
- b. Motivational signs, inform & remind, used alone or with enhancements led to increased use of stairs and attitude towards using them

c. In 10 of the 11 included studies more people used the stairs when point-of-decision prompts were posted; Stair use increased by a median 2.4 percentage points, a relative increase of 50% <sup>15161718</sup>

- Soler RE, Leeks KD, Ramsey Buchanan L, et al. Point-of-decision prompts to increase stair use: a systematic review update. Am J Prev Med 2010;38(2S):292-300.
- <u>Task Force on Community Preventive Services</u>. <u>Recommendation for use of point-of-decision prompts to increase stair use in communities</u>. Am J Prev Med 2010;38(2S):290-291.
- Kahn EB, Ramsey LT, Brownson R, et al. The effectiveness of interventions to increase physical activity: a systematic review. Am J Prev Med 2002;22(4S):73-107.
- <u>Task Force on Community Preventive Services. Recommendations to increase physical activity in</u> communities. Am J Prev Med 2002;22 (4S):67-72.
- CDC. Increasing physical activity. A report on recommendations of the Task Force on Community Preventive Services.
- Task Force on Community Preventive Services. Physical activity. In: Zaza S, Briss PA, Harris KW, eds. The Guide to Community Preventive Services: What Works to Promote Health? Atlanta (GA): Oxford University Press; 2005:80-113 (Out of Print).

<sup>&</sup>lt;sup>15</sup> https://www.thecommunityguide.org/findings/physical-activity-point-decision-prompts-encourage-use-stairs

<sup>&</sup>lt;sup>16</sup> https://www.thecommunityguide.org/stories/evidence-based-recommendations-get-minnesotans-groove

<sup>&</sup>lt;sup>17</sup> https://www.thecommunityguide.org/stories/maryland-businesses-support-worksite-wellness-effort-combat-chronic-disease

<sup>&</sup>lt;sup>18</sup> https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies/point-of-decision-prompts-for-physical-activity#:~:text=Point%2Dof%2Ddecision%20prompts%20are,malls%2C%20banks %2C%20and%20libraries

- 1. Background: Peer Educator Learning Intervention is an intervention technique that selects and trains individuals who are part of the community to promote and conduct a behavioral intervention.
  - a. Individuals can be students, teachers, professors, workers, physicians, or any other professions. The idea is to select individuals from the same community as the target group.
- 2. Step for the Peer Educator Learning Intervention
  - a. Design a Four-Module course
    - i. Module 1: Overview of COVID-19
      - 1. What is COVID-19
      - 2. Mode of transmission
      - 3. Incidence
      - 4. Are you at-risk?
      - 5. How to check if you have COVID-19
    - ii. Module 2: Risk behaviors (explore cues to action, social influences, and the environment)
      - 1. Poor Social Distancing
      - 2. Lack of Face Coverings
      - 3. Attending Large Group Events
      - 4. Comorbidities and Bad Practices that aid in COVID-19 Development
    - iii. Module 3: Skill building/decision making/negotiation (cues to action, self-efficacy, beliefs are addressed)
      - 1. Making decisions when in social situations and how to hold safe gatherings
      - 2. Self-efficacy and assertiveness
        - a. Encouraging friends and classmates to social distance
    - iv. Module 4: Taking charge/Putting it all together (focuses on cognitive competencies, social influences, and the environment)
      - 1. Scenarios
      - 2. Role Playing (How would you handle it?)
  - b. Select students from different classes (freshman, sophomore, junior, and senior) who are willing to become peer educators
    - i. Selected students are required to complete a social distancing course designed by the university that teaches students about COVID-19, types of face coverings, and how to handle them
    - ii. Selected students are required to also complete a two-hour educational course that teaches them about the Four-Module course and how to teach it to others
  - c. Prepare an all-inclusive PowerPoint that includes the four modules for peer educators to introduce to other students
  - d. Contact professors and have them dedicate two 1-hour slots for peer educators to come and teach this material. All students in that class are automatically enrolled unless they wish to opt-out.
  - e. Conduct Pre/Post Surveys on COVID-19 Knowledge and Self-Efficacy
    - i. All students who complete both be given a gift (gift cards, school spirt apparel, etc.)
- 3. Messaging: There are three main messages that are associated with this intervention.
  - a. Introductory Message
    - i. Want to help combat the spread of COVID-19 and make campus safe for everyone? Come join the STOP COVID-19! Group today!
  - b. Explanatory Message
    - i. IS COVID-19 interrupting your college life? Has it made going to school not as fun as before? Participate in our training course and get back to doing what you do in college!
  - c. Concluding Message

i. Thanks for participating in the social distancing educational course! We definitely appreciate your help in this fight and as a result, we have an awesome reward for you! Just login into your student account and click "claim your gift card."

#### 4. Literature Review

- a. Peer Education has been utilized time and time again. One systematic/meta-analysis determined that peer to peer education was moderately effective at behavior outcomes. <sup>19</sup>
- b. This intervention was based on a success evidence-based intervention that reduced the risk of HIV/AIDS in African American College Students.<sup>20</sup>

### 5. Additional Resources

a. <a href="http://www.specialconnections.ku.edu/?q=behavior\_plans/classroom\_and\_group\_support/teacher\_too\_ls/peer\_assisted\_interventions">http://www.specialconnections.ku.edu/?q=behavior\_plans/classroom\_and\_group\_support/teacher\_too\_ls/peer\_assisted\_interventions</a>

<sup>&</sup>lt;sup>19</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3927325/

<sup>&</sup>lt;sup>20</sup> https://www.deepdyve.com/lp/sage/reducing-the-risk-of-hiv-aids-in-african-american-college-students-B8W0TPBKmS?

### **Gamification Interventions**

- 1. Background: Gamification uses game principles and elements in situations that do not traditionally lend themselves to being a game to motivate, engage and influence individuals.
- 2. Steps
  - a. Determine which "game" works best for your college community
    - i. Library Scavenger Hunt- Social Distancing Edition
      - 1. The library places an object (e.g. golden ticket) in an area that is away from where most students sit. The "scavenger hunt" will encourage students to find seating in more secluded areas in the library. Whoever finds the object is the winner and gets a prize (e.g. gift card, meal credits)
    - ii. Residence Hall Raffle
      - 1. Students track number of times they social distance (e.g. sit a seat apart) on a card/poster in the common area. This is kept track by RA's in residence halls. For every X times (10?) they do so, they receive an entry into a raffle. The prizes can be things such as bookstore gift card or a gift card to a local restaurant etc.
    - iii. Walk across America
      - 1. Every time a student social distances 10 times, that represents the equivalent to 1 mile walked (arbitrary amounts- those can be changed).
      - 2. Place a map of the USA on the wall in the hallway in a residence hall and track how far the students have "walked".
      - 3. Can become competition between floors to see which floor "walked" further.
    - iv. Biggest Loser (least amount of social distancing)
      - 1. Each room in a residence hall track number of times they social distanced on a card/poster in total the common room.
      - 2. Rooms in the hallway who social distances the least number of times per week/month has a penalty.
      - 3. Penalty can be has to donate to charity, buy their neighbor coffee, or whatever makes the most sense for resident hall.
- 3. Messaging: There are three main messages that are associated with this intervention.
  - a. Introductory Message
    - i. Staying healthy can be fun! We're announcing a new competition coming next week. Stay tuned for more information!
  - b. Explanatory Message
    - i. Who says talking about washing your hands can't be fun? Each day this week a trivia question will be posted in the break room. Write your answer down on the paper provided and place it into the bin. The student who gets the most correct answers this week will win a prize!
  - c. Concluding Message
    - i. Thank you for participating in hand washing trivia. We hope you had fun and maybe learned something, too!
- 4. Literature Review
  - a. In one organization that implemented gamification as an intervention to tackle hand hygiene, adherence to hand washing more than doubled.<sup>21</sup>

<sup>&</sup>lt;sup>21</sup> https://link.springer.com/content/pdf/10.1007%2F978-3-319-07626-3\_70.pdf

- Hand hygiene gamification interventions have largely been centered around technology, using mobile phone applications and web browsers. Other health behavior interventions have focused less on technology.<sup>22</sup>
- c. Board games have been used as a means to behavior change, as well

- <a href="https://link.springer.com/article/10.1186/s12911-017-0410-">https://link.springer.com/article/10.1186/s12911-017-0410-</a>
- https://www.researchgate.net/profile/Harri OinasKukkonen/publication/295397862 Understanding Persu asion Contexts in Health Gamification A Systematic Analysis of Gamified Health Behavior Change Su pport Systems Literature/links/5b69978992851ca650512a03/Understanding-Persuasion-Contexts-in-Health-Gamification-A-Systematic-Analysis-of-Gamified-Health-Behavior-Change-Support-Systems-Literature.pdf

<sup>&</sup>lt;sup>22</sup> https://www.liebertpub.com/doi/pdfplus/10.1089/g4h.2018.0017

### Social Support Intervention

- 1. Background: Social support focuses on building, strengthening, maintaining social networks to provide support for behavior change. Examples include setting up a buddy system, making contracts with others to complete specific levels of activity, setting up groups, etc.
- 2. Steps
  - a. Determine which types of social support will work best on your campus. A buddy system, a group of individuals who support each other, a "contract" between students, etc.
  - b. Set a length of time for the social support intervention.
    - i. Encourage students to pick a buddy that they will study with. While students will not eliminate studying with each other altogether, we can try to limit the amount of people they interact with by choosing a designated study buddy.
    - ii. The goal of the intervention is to make social distancing the "norm"; if someone sees another student not socially distanced, they speak up. Students are responsible for holding each other accountable for their behavior.
  - c. Once the support system has been identified, market the idea to students.
    - i. Have students do this on a voluntary basis or organize it through a student centered organization on campus. Students should pick who they want to work with.
    - ii. Explain to students they are engaging in social distancing by limiting studying with only their buddy and not others
    - iii. Let students know they are responsible for holding each other accountable for social distancing if they see a group studying with more than just their buddy
  - d. Assign "buddies" or "group" among students.
    - If this is done through specific student organizations on campus, post who has signed up and who their study buddy is. This way other students will know who is involved and can hold others accountable
  - e. Continue to market the social support intervention so that all students are reminded they need to study with their study partner and keep others accountable.
- 3. Messaging: There are three main messages that are associated with this intervention.
  - a. Introductory Message
    - i. Who's your buddy? Starting tomorrow, you can pair up with a friend as your designated "study buddy." Find out who other buddies are and see who is social distancing!
  - b. Explanatory Message
    - i. Make sure to study with just your buddy! If you see other designated study buddies working in large groups remind them they should be social distancing and working with their buddy.
  - c. Concluding Message
    - i. Don't forget about your buddy! Continue to study in small groups and social distance!
- 4. Literature Review
  - a. Social support interventions have been used in community settings to increase physical activity and improve physical fitness among adults.
  - b. Increase in physical activity were supported by creating new social networks or working within preexisting networks in a social setting outside the home, such as the workplace.
  - c. Interventions typically involved setting up a "buddy" system, making "contracts" with others to complete specified levels of physical activity, or setting up walking or other groups to provide friendship and support.

d. Individuals who received more frequent support were more active than those who received less frequent support, although both highly structured and less formal support were equally effective. <sup>23</sup>

- Kahn EB, Ramsey LT, Brownson R, et al. The effectiveness of interventions to increase physical activity: a systematic review. Am J Prev Med 2002;22(4S):73-107.
- <u>Task Force on Community Preventive Services. Recommendations to increase physical activity in communities.</u> Am J Prev Med 2002;22 (4S):67-72.
- CDC. Increasing physical activity. A report on recommendations of the Task Force on Community Preventive Services [www.cdc.gov/mmwr/preview/mmwrhtml/rr5018a1.htm]. MMWR 2001;50 (RR-18):1-16.

<sup>&</sup>lt;sup>23</sup> https://www.thecommunityguide.org/findings/physical-activity-social-support-interventions-community-settings

- 1. Background: Individually adapted health behavior change programs teach people behavioral skills to help them incorporate a desired activity into their daily routines. Programs are specific to each individual and are tailored to their unique interests, preferences, and readiness for change. Targeted behaviors may be planned (e.g., washing your hands before eating) or unplanned (e.g., using hand sanitizer when there is no access to a sink).
  - a. Behavioral skills include goal-setting, self-monitoring, building social support for the new behavior, and reinforcing the behavior via self-reward or positive self-talk.
  - b. Multi-faceted model which incorporates several behavior change campaigns.
  - c. Many of these interventions use constructs from established health behavior change models such as the Social Cognitive Theory, the Health Belief Model, or the Transtheoretical Model of Change,
  - d. May be slightly less realistic than other behavioral interventions, since you need to individualize hand washing for all students. This would mean determining why a student does not wash their hands, what their perceived barriers are to doing so, targeting change to each specific individual.

## 2. Steps

- a. Determine which specific planned or unplanned behaviors you would like to target.
- b. Based on the behaviors that will be targeted in the intervention, develop the following components:
  - i. Goal-setting
    - 1. Each student will need to develop a goal: Social distancing X number of times per day. Places to social distance: class, dining hall, etc.
    - 2. Goals may be written down and hung in a common area as a reminder to individuals
    - 3. Students can create a timeline for what they're goals are and when they would like to achieve them (next 30 days)
    - 4. Students may "pledge" their goal by writing it on a piece of paper or a sign that will be hung in a dorm, student union, club, etc.

#### ii. Self-monitoring

- 1. Students need a way to track their behavior in order to determine whether they met their goal. Google has developed an Android tool that helps you stay 6 feet away from others using your phone.
- 2. https://www.cnbc.com/2020/05/29/google-sodar-uses-ar-on-android-phones-to-help-social-distance.html
- iii. Social support for the behavior
  - 1. Social support can be in the form of encouragement between the students and their campus community. If students or remind each other to social distance this could be an example for social support.
- iv. Reinforcing the behavior via self-reward or positive self-talk.
  - 1. Remind students that social distancing is to protect their friends and campus community as well as themselves. They should feel proud that they are making changes to their behavior for others instead of feeling like it is a burden.
- c. Set a time-frame for the intervention. How long will the intervention run for? Example studies ran for 1-2 years, but social distancing is a more immediate change as opposed to increasing physical activity/weight loss. 6 months-1 year?
- d. Encourage students throughout the duration of the intervention. Students need to keep up on tracking their behavior, or they will not be able to see their progress at the end.
- e. Determine if and how students will be rewarded for participation. Is self-motivation enough, or does there need to be a different motivator?

- i. Everyone receives a raffle ticket for each month of the intervention they completed. At the end of the intervention, a drawing is held for X number of prizes.
- 3. Messaging: There are three main messages that are associated with this intervention.
  - a. Introductory Message
    - i. Goals are important. Next week, everyone will pledge their hand washing goal when they clock in. We'll hang the banner with everyone's goals on it in the break room as a reminder.
  - b. Explanatory Message
    - i. Be sure to track the number of times you wash your hands on the card provided to you. Need a card? Your manager will be happy to give you one.
  - c. Concluding Message
    - i. Thank you for participating! We're so proud of everyone who achieved their goals.

#### 4. Literature Review

- a. Used with physical activity to teach individuals behavioral skills to help incorporate physical activity into their daily routines. Programs are tailored to an individual's interests, preferences, and readiness for change.
- b. Interventions included substantial communication activities through mass media, social support such as self-help groups, risk factor screening, counseling, and education about physical activity in a variety of settings, and environmental or policy changes such as the creation of walking trails.
- c. Planned behaviors included a daily scheduled walk, and unplanned behaviors included using the stairs when the opportunity arises.
- d. All programs incorporated the following set of skills: (1) setting goals for physical activity and self-monitoring of progress toward goals, (2) building social support for new behavioral patterns, (3) behavioral reinforcement through self-reward and positive self-talk, (4) structured problem-solving geared to maintaining the behavior change, and (5) prevention of relapse into sedentary behaviors.<sup>24</sup>
- e. Goal setting to reduce risk of HIV/AIDS among sexually active college students. Students were invited to pick specific risk reduction goals to be implemented over a 30-day period. Men were reported to using condoms more and women reported having significantly fewer partners<sup>25</sup>

- Kahn EB, Ramsey LT, Brownson R, et al. The effectiveness of interventions to increase physical activity: a systematic review. Am J Prev Med 2002;22(4S):73-107.
- Task Force on Community Preventive Services. Recommendations to increase physical activity in communities. Am J Prev Med 2002;22 (4S):67-72.
- <u>CDC. Increasing physical activity. A report on recommendations of the Task Force on Community Preventive</u> Services. MMWR 2001;50 (RR-18):1-16.

<sup>&</sup>lt;sup>24</sup> https://www.thecommunityguide.org/findings/physical-activity-individually-adapted-health-behavior-change-programs

<sup>25</sup> https://guilfordjournals.com/doi/pdf/10.1521/aeap.17.3.91.62902

# Policy Implementation

#### Policy Campaign

- 1. University health promotion: comprehensive set of strategies which include programs, policies, benefits, environmental supports, and links to the surrounding community designed to meet the health and safety needs of all students
  - a. Four-step process:
    - i. University Health Assessment
      - 1. Helps determine needs of specific student population
    - ii. Program Planning
      - 1. Select interventions and components which can be implemented efficiently and are suited to the university
    - iii. Program Implementation
      - 1. Put the program into place at the university
    - iv. Program Evaluation
      - 1. Determine the impact of the program (can be positive, negative, or neutral)
  - b. Examples of campus health program components and strategies include:
    - i. Health education classes
    - ii. Increase access to local fitness facilities
    - iii. University policies that promote healthy behaviors (ex: tobacco-free property)
    - iv. A healthy school environment created through actions such as making healthy foods available and accessible through vending machines or cafeterias
    - v. A school environment free of recognized health and safety threats with a means to identify and address new problems as they arise
  - https://www.cdc.gov/workplacehealthpromotion/model/index.html
- 2. University established regulations- implementation led to decrease in negative outcomes. However, regulation alone is likely not enough.
  - a. Combined educational campaign and policy change: Compliance with hand-washing improved (from 47.7% to 85.4%) after hand washing policy was introduced. This, coupled with an educational campaign, can directly improve hand washing.
    - i. Multidisciplinary task force was created to develop an evidence-based hand washing policy
  - https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD006251.pub3/full
  - https://www.nature.com/articles/7210661

### **Program Metrics**

Program evaluation is defined as the application of the scientific methods to "assess the design, implementation, improvement or outcomes of a program. <sup>2627</sup> The final component of any evidence-based program is an evaluation of its measures and interventions to determine whether it was successful or not. This serves multiple different roles simultaneously. First, the organization or institution conducting the program can determine whether their intervention is improving outcomes in their target population. Second, positive findings from an evaluation allow for the demonstration of program effectiveness for funders or sponsors. Third, negative findings demonstrate the need for program improvement or reorganization. Finally, an evaluation further justifies the continually funding of a program. <sup>26 27</sup>

It is important to note that evaluation is linked in the logic model. Evaluation is an in-depth analysis of the outcomes originally developed in the logic model. It allows for the tangency of knowledge, attitudes, behaviors, and other outcomes. The short-/medium-/long- outcomes become quantified and depending on what is assessed, qualified. Evaluation serves to act as a bridge between the projected and the reality. For an overview/example of how to measure program components, refer to Appendix D: Evaluation Framework.

The Joint Commission previously published a comprehensive document outlining ways to measure hand hygiene adherence. The following metrics are derived from this report and supplemental materials from the World Health Organizations. This plan has been adapted and utilized for social distancing. In addition, the examples provided in the Appendix have been modified to fit our program. The original documents can be viewed at the links below.

- https://www.who.int/gpsc/5may/monitoring\_feedback/en/
- <a href="https://www.jointcommission.org/-/media/deprecated-unorganized/imported-assets/tjc/system-folders/topics-library/hhmonographpdf.pdf">https://www.jointcommission.org/-/media/deprecated-unorganized/imported-assets/tjc/system-folders/topics-library/hhmonographpdf.pdf</a>?db=web&hash=7F1A70731D44DC2D183B1038CE34EC46

### 1. Surveys

- a. Can reveal what individuals know and think about social distancing as well as why they adhere (or do not adhere) to guidelines
- b. Can reveal whether students' perceptions of their own social distancing behavior match the perceptions of others/family members
- c. Surveys for self-reporting of social distancing behavior can be unreliable; individuals tend to overestimate their adherence to guidelines when questioned and may inaccurately recall their behavior
- d. An example of a comprehensive pre and post intervention survey for students which contains questions regarding self-reported behavior can be found in Appendix E: Pre-Perception Survey for Students and Appendix F: Post-Perception Survey for Students; a shorter pre and post survey that will help measure a change in student knowledge can be found in Appendix G: Pre and Post Intervention Surveys.

#### 2. Observation

- a. Tells you know who is social distancing and who isn't
- b. Maintaining at least 6 feet distance from others?
- c. Avoiding large crowds or groups?
- d. Requires man power to do so; being watched may deter individuals from repeating behavior long term
- e. It can change the behavior of students if they are aware that they are being observed
- f. A form which can be used to observe hand hygiene compliance and instructions for use can be found in Appendix H: Social Distancing Observational Tool.

#### 3. Monitor Infection Rate

a. Have health services on campus test and report positive cases. If tests are conducted off-campus, any positive cases must be reported

<sup>&</sup>lt;sup>26</sup> https://mainweb-v.musc.edu/vawprevention/research/programeval.shtml

<sup>&</sup>lt;sup>27</sup> https://www.cdc.gov/eval/framework/index.htm

- b. There are generally 3 phases of infection rate 1) when there is no community transmission, 2) when there is minimal to moderate community transmission, 3) when there is substantial community transmission
- c. To understand the risk (probability) of infections divide the number of infections by the population at risk
- d. Does not reveal whether students are performing social distancing or whether they are performing it correctly
- e. Does not yield any contextual information about when or why social distancing guidelines are not adhered to, and it often does not tell you who is (or isn't) practicing social distancing

### Limitations

There are several limitations for these programs.

- The programs were designed around scientific knowledge of disease transmission for COVID-19. Because COVID-19 is a new disease, the research and knowledge base are forever changing. The educational campaigns and behavioral interventions may become outdated.
- Evidence-based messaging and behavioral interventions are limited or non-existent. Thus, the team utilized
  evidence -based educational messaging and evidence-based behavioral intervention from a wide array of
  disease; the materials were minimally altered to fit the COVID-19 pandemic. Once materials are altered they are
  no longer evidence-based, however, their mirrored after evidence-based materials provide credibility to the
  materials.
- The materials were designed over a 1-month period. Literature reviews were robust but did not include the entirety of every published research article.
- The programs are not geared to culture, race or ethnicity. Tailored messaging and behavioral intervention are more effective if tailored to the community based on culture, race, and ethnicity.
- Programs should provide the educational campaign first, and follow education with behavioral interventions. More than one behavioral intervention should be used to improve uptake of the behavior.
- There are multiple competing factors that may influence individual and societal behaviors. These could be addressed when implementing these programs.

### Conclusion

The social distancing campaign contains several main components for implementation and evaluation. The program contains and education campaign, behavioral intervention, and a policy component. The Intervention also include metrics to measuring the behavioral intervention. Social distancing has been shown to decrease the spread of COVID-19 and decrease the likelihood of infection.

# Appendix A: Blank Logic Model

Program Name:	Program Name:					
Problem Statement:						
Program Goal:						
Resources	Activities	Outputs	Short-Term Outcomes	Intermediate Outcomes	Long Term Outcomes	
***************************************						
Rationale:		,	Assumptions:	1		

## Appendix B: Preventing COVID-19 Overview

#### Program Name: Preventing COVID-19

Problem Statement: During the COVID-19 pandemic, university students across New York State are not adhering to new health safety guidelines due to their low health risk perception.

Program Goal: To decrease the spread of COVID-19 among university students.

Resources	Activities	Outputs	Short-Term Outcomes	Intermediate Outcomes	Long Term Outcomes
Upstate Public     Health Team	Conduct campaigns on handwashing	# campaigns     conducted on     handwashing	Increase in education	Increase in handwashing	Decrease in     COVID-19     Transmission
Administrative     Approval	Conduct campaigns     on PPE use**	# campaigns     conducted on PPE use	Increase in health behaviors	Increase in     PPE usage	among college students
Financial Support for Multiple Program	Conduct campaigns on social distancing	# campaigns     conducted on social	Increase in policy	Increase in social distancing	Decrease in community     COVID-19
Campaigns	Conduct campaigns on symptom monitoring	distancing  • # campaigns	development	Increase in symptom	transmission
School     Institutional     Resources	Conduct campaigns     on policy	conducted on symptom monitoring		monitoring	
-Announcements -Message Boards -Media Outlets	development	# campaigns     conducted on policy     development			
-Face Coverings	<u> </u>			1	

### Rationale:

 The spread of COVID-19 can be slowed by handwashing, use of PPE, social distancing, symptom monitoring, and policy development.

#### **Assumptions:**

- 1. There is a direct correlation between preventative behaviors and slowing the spread of COVID-19
- 2. New York State colleges have the resources to support these guidelines

## Appendix C: Social Distancing Logic Model

Program Name: Stay Safe and Give Space!

Problem Statement: In 2020, college students throughout New York State are not social distancing due to their low health risk perception

Program Goal: To decrease COVID transmission using social distancing among college students returning back to campus.

Resources	Activities	Outputs	Short-Term Outcomes	Intermediate Outcomes	Long Term Outcomes
Upstate Public     Health Team     Administrative     Approval     Financial Support     for Multiple     Program     Campaigns     School     Institutional     Resources     -Announcements     -Message Boards     -Media Outlets	Implement a college student educational campaign on social distancing     Conduct behavioral campaign on social distancing     Conduct policy campaign on social distancing	# of educational campaigns conducted      # behavioral campaigns conducted      # of policy campaigns conducted      # of policies created	Increase in awareness of social distancing Increase in knowledge of social distancing Increase in positive attitudes about social distancing Increase in skills for social distancing Increase in skills for social distancing	Increase in social distancing	Decrease in COVID-19     Transmission among college students     Decrease in community COVID-19 cases     Decrease in hospitalization usage rates
Rationale: 1. Social distancing h	nelps slow the spread o	fCOVID-19	Assumptions: 1. There is a direct corslowing spread of C 2. New York State collicampaign.		

# Appendix D: Evaluation Framework

Outcomes (LM)	Objectives	Outcome Questions	Indicators	Data Collection Methods	Sources
Short Term Increase in social distancing skills	By the end of the program, all students will be able to properly social distance	Did students successfully demonstrate social distancing?	Participant skills	Observation	Observer
Intermediate Term  Increase in social distancing	After the program, all students will social distance	Did students social distance more?	Rate of social distancing	Survey Observation	Self-report Student
Long Term  Decrease COVID- 19 transmission among students	After the program, COVID-19 transmission will be zero among students	Were there cases of COVID-19 transmission among students?	Rate of COVID-19 transmission	Survey Monitor	Self-report University

## Appendix E: Pre-Perception Survey for Students

This document has been modified from the original Perception Survey for Health-Care Workers (revised August 2009), created by the World Health Organization. The original form can be found here: <a href="https://www.who.int/gpsc/5may/tools/evaluation\_feedback/en/">https://www.who.int/gpsc/5may/tools/evaluation\_feedback/en/</a>

# **Perception Survey for Students**

Each question has one answer only.

Please read the questions	carefully and then respond	d spontaneously. Your	answers are anonymous	s and will be kept
confidential				

1.	Gend	der:	Female	Male				
2.	Age:		years					
3.	Did y	you receive forma	al training in social o	distancing in th	e last three	months?	_ Yes _ N	0
4.	Do y	ou routinely soci	al distance?				_ Yes _ N	0
5.	Wha	t is the effectiven	ess of social distan	cing in prevent	ing COVID?			
	<u> </u>	ery low	Low	High		Very high		
6.	Amo	ng all safety issu	es, how important is	s social distand	ing at your	university?		
	<u> </u>	ow priority	Moderate priority	High	priority	Very high p	riority	
7.		verage, in what p 6 feet apart?	ercentage of situati	ons requiring s	ocial distan	cing do <u>students</u>	in your facility ac	ctually
		_%	I don't know					
8.	your	university?	effective would the f	•	ns be to imp	rove social dista	ncing permanentl	y in
	a. L	eaders and senior	managers at your un	iversity support	and openly p	romote social dista	ancing.	
	N	lot effective			Very effective	ve		
	b. S	ocial distancing po	osters are displayed a	as reminders.				
	N	lot effective			Very effective	ve		
	c. E	ach student receiv	es education on soci	al distancing.				
	N	lot effective			Very effective	ve		
	d. C	lear and simple in	structions for social d	istancing are ma	ade visible fo	r every student.		

		Not effective		very effective
	e.	Students regularly	receive feedback on their social dista	ncing performance.
		Not effective	-··-··-··-	Very effective
	f.	You always wash y	your social distance as recommended	(being a good example for others).
		Not effective		Very effective
9.	WI	hat importance do	es the head of your university attac	h to the fact that you social distance?
		No importance		Very high importance
10.	Нс	ow important is it to	o your friends and colleagues that y	you practice proper social distancing?
		Not important		Very important
11.			percentage of situations requiring l aining 6 feet distance (between 0 ar	hand hygiene do <u>you</u> actually perform social nd 100%)?
		%		

Thank you very much for your time!

### Appendix F: Post- Perception Survey for Students

# Follow-Up Perception Survey for University Students28

It should take you no more than 15 minutes to complete this questionnaire.

Each question has one answer only.

Please read the questions carefully and then respond spontaneously. Your answers are anonymous and will be kept confidential.

This questionnaire is in two parts: **part 1** includes the same questions that you may have answered during the a previous evaluation period; **part 2** includes some additional questions to find out your opinion of the strategies and tools being currently used to promote hand hygiene at your institution.

	art Ge		_ Female _ N	Male		
2.	Age	e:	years			
3.	Did	l you receive form	al training in hand washin	ng in the last three m	onths?	_ Yes _ No
4.	Do	you routinely use	an alcohol-based hand sa	anitizer for hand hyg	jiene?	_ Yes _ No
5.	Wh	at is the effectiver	ness of social distancing	in preventing COVID	?	
	_	Very low	Low	High	Very high	
6.	Am	nong all safety issu	ues, how important is soc	ial distancing at you	r university?	
	_	Low priority	Moderate priority	High priority	Very high p	riority
7.			percentage of situations r using hand sanitizer or h			our facility actually wash
		%	I don't know			
8.	fac	ility?	effective would the follow scale according to your opinion.	ring actions be to im	prove hand washii	ng permanently in your
	g.	Leaders and senior	managers at your facility s	upport and openly pro	omote hand washing	J.
		Not effective		Very effect	tive	
	h.	Social distancing p	osters are displayed as rem	inders.		
		Not effective		Very effect	tive	
	i.	Each student receive	ves education on social dist	ancing.		
		Not effective		Very effect	tive	

<sup>&</sup>lt;sup>28</sup> https://www.who.int/gpsc/5may/tools/evaluation\_feedback/en/

	j.	Clear and simple in	nstructions for social distancing are ma	ade visible for every student.
		Not effective		Very effective
	k.	Students regularly	receive feedback on their social distant	ncing performance.
		Not effective		Very effective
	l.	You always social	distance as recommended (being a go	ood example for others).
		Not effective		Very effective
9.	WI	hat importance do	es the head of your university attac	h to the fact that you social distance?
		No importance		Very high importance
10.	Но	ow important is it t	o your friends or colleagues that yo	ou practice proper social distancing?
		Not important	-··	Very important
11.			percentage of situations requiring laining 6 feet distance (between 0 ar	nand hygiene do <u>you</u> actually perform socia nd 100%)?
		%		

### Part 2

1. Has the social distar	ncing measures with your university	made social distancing easier to do during your day?
Not at all		Very important
2. Were the activities th	nat you participated in important to i	mprove your social distancing practices?
Not at all		Very important
3. Do you consider that	t the leadership at your facility is sup	oporting social distancing improvement?
Not at all		Very much
4. Has the increased fo distancing practice		versity helped you personally to improve your social
Not at all		Very much
-	of your role in preventing the spread I during the current social distancing	d of COVID by improving your social distancing promotional campaign?
Not at all		Very much

Thank you very much for your time!

## Appendix G: Pre and Post Intervention Surveys

Pre and Post intervention surveys which should be distributed to students pre-intervention and post-intervention to measure change in knowledge. Questions may need to be tailored to specific interventions, but the Pre and Post surveys should have the same questions. Example questions are included below.

### **Pre Survey**

<u>Please select either "true" or "false" for each of the following questions.</u>

You should stay a minimum of 5ft away from others	True	False
Droplets in the air can be viral	True	False
1 in 4 people with COVID don't show symptoms but are contagious	True	False

### **Post Survey**

Please select either "true" or "false" for each of the following questions.

You should stay a minimum of 5ft away from others	True	False
Droplets in the air can be viral	True	False
1 in 4 people with COVID don't show symptoms but are contagious	True	False

### Appendix H: Social Distancing Observational Tool

### **Instructions for Completing Social Distancing Tool**

Time observed: Indicate the time which the individuals are being observed for social distancing.

**Social Distancing NOT done**: Only check this box if the students did not social distance. If they do not social distance and you intervene and tell them they need to, check "yes" for intervene". If you do not tell them to, check "no" for intervene.

**Procedure Followed Correctly:** Check "yes" for social distance if they follow social distancing guidelines and maintain a 6 foot distance. If they did not follow the proper procedure, check "no".

**Social Distancing Done Incorrectly:** Check all of the reasons why the individual did not social distance correctly. If they used did it correctly, leave blank.

Social Distancing Observational Tool				
Time Observed	Social Distancing Not Done	Procedure Followed Correctly	Social Distancing Done Incorrectly (Check all that apply)	
Classroom Library Dining Hall Residence Hall Other:	STOP  Intervened:  Yes  No	Yes  STOP  No	Did not maintain 6ft distance Did not avoid large groups Did not limit close contact and weren't wearing a mask	
Classroom Library Dining Hall Residence Hall Other:	STOP  Intervened:  Yes  No	Yes STOP No	Did not maintain 6ft distance Did not avoid large groups Did not limit close contact and weren't wearing a mask	
Classroom Library Dining Hall Residence Hall Other:	STOP  Intervened:  Yes  No	Yes STOP No	Did not maintain 6ft distance Did not avoid large groups Did not limit close contact and weren't wearing a mask	
Classroom Library Dining Hall Residence Hall Other:	STOP  Intervened:  Yes  No	Yes STOP No	Did not maintain 6ft distance Did not avoid large groups Did not limit close contact and weren't wearing a mask	

Tool is modified from the Reedsburg Area Medical Center Organization Focused "Hand Hygiene Observation Tool". The original can be found: https://www.jointcommission.org/-/media/deprecated-unorganized/imported-assets/tjc/system-folders/topics-library/hh\_monographpdf.pdf?db=web&hash=7F1A70731D44DC2D183B1038CE34EC46