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members are in close proximity. If possible, allowing a young person some private time at home to talk with friends or romantic partners may prevent them from having to physically leave the home to get private time. Parents might allow their young adults more leeway to keep in touch with their friends and peers virtually so they do not have to meet in person.

- Strengths. Young adults have many strengths, and leveraging these may be a win-win for all involved. Young adults are experts at distant socializing through social media and virtual communications. For instance, they can help families to keep connected virtually and troubleshoot technical issues as families work from home. Young adults can also assist with essential groceries for their families and older neighbors. Similarly, undergraduate and medical students have organized fundraisers and drives for personal protective equipment collection to support local hospitals.

We should respect young adults and leverage their strengths rather than chastise them. By supporting them to rise to the challenge of COVID-19, we are also promoting their final stage of development into adulthood.

Mr. Sluder recently posted an apology on Instagram, writing, “I would like to sincerely apologize for the insensitive comment I made in regards to COVID-19 while on spring break....Like many others, I have elderly people who I adore more than anything in

the world and other family members who are at risk, and I understand how concerning this disease is for us all. Our generation may feel invincible, like I did when I commented, but we have a responsibility to listen and follow the recommendations in our communities.”

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References

- Simmonds DJ, Hallquist MN, Asato M, et al. Developmental stages and sex differences of white matter and behavioral development through adolescence: A longitudinal diffusion tensor imaging (DTI) study. *Neuroimage* 2014;92:356–68.
- Stroud C, Walker LR, Davis M, et al. Investing in the health and well-being of young adults. *J Adolesc Health* 2015;56:127–9.
- Katzman D. *Neinstein's adolescent and young adult health care: A practical guide*. 6th edition. Philadelphia: Wolters Kluwer; 2016.
- Bialek S, Boundy E, Bowen V, et al. Severe outcomes among patients with Coronavirus disease 2019 (COVID-19) — United States, February 12–March 16, 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:343–6.
- Yeager DS, Dahl RE, Dweck CS. Why interventions to influence adolescent behavior often fail but could succeed. *Perspect Psychol Sci* 2018;13:101–22.
- Naar-King S, Suarez M. *Motivational interviewing with adolescents and young adults*. New York: Guilford Press; 2011.

Lessons Learned: Achieving Critical Mass in Masking Among Youth in Congregate Living



To the Editors:

Covenant House is a nonprofit organization that provides housing and support services to youth facing homelessness. Homeless services are provided in congregate settings, which can facilitate the spread of infection. Recommendations to prevent COVID-19 may be difficult for a person experiencing homelessness to follow. For many, it is not possible to avoid crowded locations, such as shelters. However, once sheltered, some measures become more feasible, such as frequent handwashing with soap and water and wearing a face mask. Maintaining a distance of six feet from others may be more or less feasible depending on the limitations of spacing at the shelter but can be addressed with processes that make it possible. Covenant House staff members have been tirelessly working to maintain standard measures to protect our youth and to be able to sustain the shelters' mission during this unprecedented time.

We serve at the health center within the Covenant House of Pennsylvania. Our first programmatic changes related to COVID-19 transmission were made in early March. While presented sequentially, many of our efforts happened simultaneously. Each new effort was introduced as it was developed with often overlapping time frames. We tried to minimize crowds by expanding mealtime and shower hours, thereby allowing fewer residents into those spaces at any time. We

expanded access to hand sanitizers and required all youth to sanitize before entering public spaces. When we asked youth to abide by universal masking, many were initially resistant. Committed to avoiding punitive measures for youth not wearing their masks, we focused on methods of positive reinforcement. Our efforts were based on a diffusion of innovation model which has been successfully used with adolescents and young adults to achieve behavioral change [1–4].

A new idea is adopted slowly during the early stages of the diffusion process until a critical mass of early adopters is achieved [1–3]. We first worked to encourage staff to wear masks and, within a couple of weeks, mandated usage. We created posters of staff and celebrities wearing masks and placed them in public locations, but adult modeling had minimal impact on the youth. We took an informal poll to assess how the youth felt about masking and perceived barriers and made changes using the philosophy of rapid process innovation. Surgical masks, which were first available and recommended, were considered the most invasive, uncomfortable, and disruptive of all the interventions. Lack of personal experience with COVID-19, misinformation about their own susceptibility, conspiracy rumors, and general mistrust of government made it difficult for youth to appreciate real risks or the protective benefits of masking. In response, we set out to educate our youth and created customizable pins with the statement “I wear my mask for...” and distributed them around the shelter. We tried to

harness the protective nature and compassion of the youth as motivation to adopt this new behavior change. The pins yielded few new adopters.

Diffusion of innovation theory depends on early adopters' perception of the innovation as advantageous [1,4]. We were able to identify an early adopter in shelter who was considered a leader among her peers. We met with her in the middle of March to better understand her motivations. She suggested that we allow the youth to decorate their masks, a subtle gesture that would celebrate individuality. We created a mask training session for the residents and provided them with space and materials to decorate the masks. We saw some improvement in the rate of adoption as our early adopter shared her positive experiences with other residents. However, by the end of March, we still had a minority of youth complying with universal masking.

In mid-April, a little over 6 weeks after we began our initial efforts, we reached a critical mass. Cloth masks were introduced as an option for the youth, largely made possible by the charitable contributions of local donors. The cloth masks allowed residents the opportunity to express their personal styles. Here we saw the biggest change thus far in the rate of adoption. It was, however, the eventual donation of masks with the logos of Philadelphia sports teams that enabled us to reach our critical mass. This provided youth with the ability to champion their home sports team in a way similar to wearing a jersey or baseball cap while abiding by universal masking. We are now proudly at a point where on average about three-quarters of the residents wear their masks at any time while inside the shelter. We are aware that cloth masks do not offer the same protection as surgical masks but do decrease transmission rates. Nevertheless, the lesson we would draw from this process is that we would start next time with the decorative cloth masks – and be well supplied with team logos – to engage more early adopters.

At Covenant House, we were faced with a nearly impossible mission of staying true to our core values during this pandemic. *How do we keep our doors open to youth in need of shelter, support, and loving-kindness, while closing the doors to the virus in order to keep those inside safe and protected?* Our open-door policy was perhaps what we both valued and feared most. What we discovered through our efforts is not a surprise to those familiar with adolescents. Diffusion of innovation, in this case universal masking, is largely dependent on the influence of early adopters [1,2]. We also know that perceptions about peer behaviors motivate change [5]. Decisions made in adolescence are intimately bound to social context and the perception of normative

behaviors. Once we reached critical mass in our universal masking, youth perception of peer behavior shifted and redefined what was considered normative. Innovations that involve a behavior change among youth need early adoption from a few prominent individuals. However, we must accept the power of peer influence and use it to our advantage, by first learning from youth what attracts and engages them.

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References

- [1] Lawrence JS, Fortenberry JD. Behavioral interventions for STDs: Theoretical models and intervention methods. In: Aral SO, Douglas JM Jr, eds. Behavioral interventions for prevention and control of sexually transmitted diseases. New York: Springer Science+Business Media, LLC; 2007:23–59.
- [2] Kelly JA, St Lawrence JS, Diaz YE, et al. HIV risk behavior reduction following intervention with key opinion leaders of population: An experimental analysis. *Am J Public Health* 1991;81:168–71.
- [3] Kegeles SM, Hays RB, Coates TJ. The empowerment project: A community-level HIV prevention intervention for young gay men. *Am J Public Health* 1996;86:1129–36.
- [4] Webb PM, Zimet GD, Mays R, Fortenberry JD. HIV immunization: Acceptability and anticipated effects of sexual behavior among adolescents. *J Adolesc Health* 1999;25:320–2.
- [5] Kinsman SB, Romer D, Furstenberg FF, et al. Early sexual initiation: The role of peer norms. *Pediatrics* 1998;102:1185–92.