# Ohio 4-H Health Heroes Medicine Cabinet Project

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### **SITUATION**

The U.S. is facing an alarming public health crisis related to opioid overdose deaths. In the 12-month period from mid-2016 to mid-2017, there were 66,972 overdose deaths in the U.S.<sup>2</sup> In Ohio alone, 5,232 Ohioans died of an unintentional drug overdose during this same period,<sup>2</sup> fueled in large part by an increase in fentanyl-related overdose deaths.<sup>8</sup> The 2016 overdose death toll is 36% greater than 2015, when Ohio led the nation.

In addition to deaths, overdoses—both prescription and illicit—are responsible for a parallel increasing trend in nonfatal emergency department admissions. Past misuse of prescription opioids is a strong risk factor for starting heroin use, with three out of four new heroin users reporting abusing prescription opioids before using heroin, Including those starting nonmedical use in adolescence. Prescription opioids have become readily available, with half of those who misuse prescription painkillers obtaining them from a family member or friend for free.

New policies that put limits on legal opioid prescriptions coincide with the rise in use of illicit drugs, including potent synthetic opioids such as fentanyl and carfentanil. The impact is staggering. According to a recent report, the annual cost of opiate abuse, addiction, and overdoses to our state is estimated to be between \$6.6 billion to \$8.8 billion, equivalent to the cost of the state's education budget.<sup>9</sup>

# **RESPONSE**

The 4-H Medicine Cabinet Display was created while attending the 2017 National Youth Summit on Healthy Living. Armed with the facts, the 4-H teens in attendance understood the severity of the issue and created an action plan with the goal of raising awareness about the extent of the opioid crisis in our state. The concept of using a mirrored medicine cabinet became the focal point of the display, because "the face in the mirror could be you," prompting people to recognize that anyone can be affected by opioid misuse. This display therefore becomes a tool to help raise awareness and educate the public about the opioid crisis and to initiate conversations about opioid misuse and its implications for individuals, families, and communities.



Ohio 4-H Health Heroes displayed the medicine cabinet at the Ohio State Fair.

# DESCRIPTION

The portable display resembles a bathroom wall, which serves to attract attention and engage participants. The display can be part of events such as state and county fairs, health fairs, and other community events.

- Prescription bottles with realistic-looking labels containing facts and statistics help those staffing the display to interact with participants.
- A pull-up banner with the question "What's in YOUR medicine cabinet?" identifies the exhibit with Extension.
- The resources and other materials that accompany the display can easily be customized to fit a specific area or region of the state.
- The opioid facts from the labels have been turned into questions for fairgoers to test their knowledge and spin the wheel for a small prize. This format increases participation and leads to better interaction and meaningful conversations with participants.
- For younger participants, there are simplified questions and an activity adapted from Generation Rx's "Is It Medicine or Candy?" game.<sup>5</sup> Participants are asked to identify which of two similar looking items is medicine and which is candy.





#### THE PROCESS

With a mission mandate in healthy living, 4-H is positioned to directly address this issue by engaging youth in drug abuse prevention using peer-led strategies. 10,11 Perhaps more important than the display itself was the process of engaging teens in its creation and implementation. The teens were part of a 4-H health ambassador program where they learned about health issues and developed advocacy skills. Research shows that youth programs offering the "Big Three" elements of positive relationships with adults, skill-building activities, and opportunities for leadership are those that promote positive youth development. When these elements are in place, it is more likely that program outcomes will be achieved. As well, when teens are placed in a teaching role, they learn the content while also developing their leadership, teamwork, and advocacy skills.

# **Advocacy Process**

- 1. Be armed with the facts.
- 2. Get others involved.
- 3. Make a plan.
- 4. Take action.
- 5. Evaluate the plan.



Prescription bottles with labels containing opioid facts.

# PROGRAM EVALUATION

We achieved the initial goal, which was to have an exhibit at our state fair staffed by teens for two days. The medicine cabinet concept resonated so well with those who heard about it or viewed the display that attending additional events (*n*=11), presentations (*n*=5), and features in local, state, and regional media and publications (*n*=10) resulted, far exceeding our original expectations. An estimated 500 people were directly reached through these events.

They will continue to teach about this project at national and state conferences in the coming year. Thus, this project enhanced 4-H's visibility as an organization that is taking action on an important issue in our state.

#### PROGRAM REPLICATION

Those interested in replicating this project or one similar should consider the following points:

- Do background research about the issue in your state or locality to customize the statistics used to create the labels and game questions.
- Provide training for teens, have them do teach-backs, and create talking points for them to use so they are comfortable with the subject matter.
- Secure funding or in-kind donations for materials (e.g., medicine cabinet, pill bottles, labels, game spinner).
   Provide guidance and background information for staff, volunteers, or youth interested in seeking donations from local retailers. Our medicine cabinet construction was funded by a \$500 mini-grant from the Robert Wood Johnson Foundation awarded after the National Youth Summit on Healthy Living.
- Secure funding or in-kind donations for game prizes (e.g., stress balls, pens, t-shirts).
- Customize resources to what is available in your location (e.g., drug disposal days, services from local agencies).

Several teens have created smaller tabletop versions that they can easily bring to clubs and other events in their county. One group of teens has a medicine cabinet located at their local after-school center.



Teens from Columbiana County created their own medicine cabinet.

# **Resources Available**

- Prescription bottle labels containing opioid facts
- Game questions and answer key
- · Activity directions
- · Background information
- Resource and reference list

# **REFERENCES**

- Centers for Disease Control and Prevention. (2017). *Annual surveillance report of drug-related risks and outcomes – United States, 2017.* Retrieved from: Centers for Disease Control and Prevention, U.S. Department of Health and Human Services https://www.cdc.gov/drugoverdose/pdf/pubs/2017¬cdc-drug-surveillance-report.pdf
- Centers for Disease Control and Prevention. (2018, February 4). Provisional drug overdose death counts. Retrieved from: <a href="https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm">https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm</a>
- Cerda, M., Santaella, J., Marshall, B. D. L., Kim, J. H., & Martins, S. S. (2015). Nonmedical prescription opioid use in childhood and early adolescence predicts transitions to heroin use in young adulthood: A national study. Journal of *Pediatrics*, 167, 605-612. http://dx.doi.org/10.1016/j.jpeds.2015.04
- Cicero, T. J., Ellis, M. S., Surratt, H. L., & Kutz, S. P. (2014). The changing face of heroin use in the United States: A retrospective analysis of the past 50 years. *JAMA Psychiatry*, 71(7), 821-826. doi: 10.1001/jamapsychiatry.2014.366
- Generation Rx. (2016). Is it candy or medicine? game. In Generation Rx elementary student resources toolkit. Retrieved from: <a href="http://www.generationrx.org/take-action/elementary">http://www.generationrx.org/take-action/elementary</a>
- Lerner, R. M. et al. (2006). Toward a new vision and vocabulary about adolescence: Theoretical, empirical, and applied bases of a "positive youth development" perspective. In L. Balter & C. S. Tamis-LeMonda (Eds.), Child psychology: A handbook of contemporary issues. New York, NY: Psychology Press.
- Lipari, R. N., & Hughes, A. (2017, January). How people obtain the prescription pain relievers they misuse.
   Retrieved from: Substance Abuse and Mental Health Services Administration website
   <a href="https://www.samhsa.gov/data/sites/default/files/report\_26">https://www.samhsa.gov/data/sites/default/files/report\_26</a>
  86/ShortReport-2686.html
- Ohio Department of Health. (2017). 2016 Ohio drug overdose data: General findings. Retrieved from <a href="https://www.odh.ohio.gov/-/media/ODH/ASSETS/Files/health/injury-prevention/2016-Ohio-Drug-Overdose-Report-FINAL.pdf?la=en">https://www.odh.ohio.gov/-/media/ODH/ASSETS/Files/health/injury-prevention/2016-Ohio-Drug-Overdose-Report-FINAL.pdf?la=en</a>

- Rembert, M., Betz, M., Feng, B., & Partridge, M. (2017). Taking measure of Ohio's opioid crisis. Columbus, OH: Ohio State University. Retrieved from https://aede.osu.edu/sites/aede/files/ publication\_files/Swank%20-%20Taking%20Measure%20of%20Ohios%20Opioid%2 OCrisis.pdf
- Schwartz, S. J., Phelps, E., Lerner, J. V., Huang, S., Brown, C. H., Lewin-Bizan, S., Li, Y., & Lerner, R. M. (2010). Promotion as prevention: Positive youth development as protective against tobacco, alcohol, illicit drug, and sex initiation. *Applied Developmental Science*, 14(4), 197-211.
- Wade-Mdvianian, R., Anderson-Butcher, D., Hale, K., Kwiek, N., Smock, J., Radigan, D., & Lineberger, J. (2012). Utilizing business, university, and community resources to target adolescent prescription drug abuse. *The Prevention Researcher*, 19(1), 17-20.

#### **Resources for More Information**

- Centers for Disease Control and Prevention https://www.cdc.gov/drugoverdose/
- Generation Rx http://generationrx.org
- National Institute on Drug Abuse https://www.drugabuse.gov/
- Substance Abuse and Mental Health Services Administration <a href="https://www.samhsa.gov/">https://www.samhsa.gov/</a>

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