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Addressing Opioid Crisis: A Community Need

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Purpose:

Fatal and nonfatal opioid overdose rates in the United States continue to rise, highlighting the need to address the current drug overdose epidemic (Centers for Disease Control and Prevention, 2018). Drug-related deaths in the United States reached an all-time high in 2016, with similar trends at the state-level (Centers for Disease Control and Prevention, 2018; Centers for Disease Control and Prevention, 2017a; Centers for Disease Control and Prevention, 2017b). In 2017, Maryland reported a 66% increase in drug-related deaths over a 2-year period, 89% of the increase attributed to opioids alone (Behavioral Health Administration, 2017). County-level analysis shows the number of deaths related to fentanyl grew 16 fold from 2007 to 2016, and the heroin-related deaths almost quadrupled since 2007 (Behavioral Health Administration, 2017). Caucasian men between 29 and 35 years were found to be the most affected (Behavioral Health Administration, 2017; Butler & Vought, 2017). In response, the state of Maryland has spent a lot of money on harm reduction strategies for this vulnerable population; However, opioid overdoses in Harford County have increased (Anderson, 2018; Behavioral Health Administration, 2017). This finding suggests evidence-based prevention measures among youth in may also be important in successfully decreasing the rate of new opioid users.

The Johns Hopkins School of Nursing (JHSON), Harford Country Drug Policy Office, and City of Aberdeen has formed an interprofessional collaboration to engage the Harford County community in an evidence-based prevention project. The project will help the community test a prevention process, Communities that Care (CTC), in attempt to address the local opioid crisis (Oesterle et al., 2015; Oesterle et al., 2018). In a randomized control trail of 24 communities in seven states, CTC decreased tobacco use by 33%, alcohol use by 32%, and delinquent behavior by 25% among community youth within 3 – 5 years of implementation (Hawkins, et al., 2012; Gloppen et al., 2016; Kim, Gloppen, Rhew, Oesterle, & Hawkins, 2015, Rhew et al., 2016; Van Horn, Fagan, Hawkins, & Oesterle, 2014). Youth were also 49% more likely to sustain abstinence from gateway drug use after CTC implementation (Oesterle et al., 2018). Males participating in CTC were also significantly less likely to use marijuana and inhalants (Oesterle et al., 2018). The purpose of this project is to evaluate the effectiveness of CTC to decrease youth opioid use behavior.

Methods:

CTC promotes development of healthy communities through implementation of tested and effective programs for adolescent development. The five-phase process engages community members from all sectors in identification of risk and protective factors for youth. Together, the community selects and implements programs that meet the community need. The five-phases of CTC are outlined below and describe the ongoing implementation in Harford County.

Phase 1: Get started: JHSON, Harford Country Drug Policy Office, and City of Aberdeen has formed the community advisory board. The community advisory board has identified community leaders, representing all the significant segments of the community to introduce CTC to Harford County.

Phase 2: Get organized: Community leaders invested in CTC will attend two trainings to prepare for CTC implementation. Training one focuses on prevention science and understanding risk and protective factors. Training two focuses on the roles and responsibilities of CTC community leaders.

Phase 3: Develop a community profile: The community will work together to survey the youth for risk and protective factors and create an inventory of existing resources for youth. Pre-existing community resources that address risk and protective factors will be identified and evaluated for high quality implementation.

Phase 4: Create a plan: The community working groups will present the survey data and resource gaps analysis to key stakeholders in the community. Together, the community and stakeholders select tested and effective policies and programs to address the prioritized risk factors. Next, an action plan will be written. Social, economic, and political determinants that may hinder prevention work will be a part of the action plan.

Phase 5: Implementation and evaluation: The community action plan will be implemented. The selected evidence-based programs will be delivered with high quality and monitored to ensure they are delivered well. The youth will be re-surveyed to track opioid use behavior overtime. Additionally, county-level opioid overdose data will be generated quarterly to evaluate the effectiveness of CTC.

Results:

Phase I is complete. Research project is in progress.

Conclusion:

In summary, CTC will engage the Harford County community in a long-term project that addresses youth problem behavior. The evidence-based process and implementation effective programs make CTC a promising approach to addressing this community-level opioid crisis. Furthermore, CTC brings together individuals from all sectors to consider social, economic, and political barriers that may underlie the opioid crisis.

If CTC reduces youth opioid use, it is likely that there will be a reduction in the number of opioid overdoses for Harford County overtime. A reduction on opioid overdose would highlight that other US communities with high rates of opioid overdose may also benefit from the CTC prevention process. Addressing opioid crisis with CTC at the community level may result in lower rates of opioid overdose at the national level. Lower rates of opioid overdoses at the national level will highlight the capacity of addressing a nationwide crisis through community-level prevention. More broadly, this approach can then be translated to international communities to prevent other countries from experiencing a public health crisis of this magnitude.

Nursing Implications:

The opioid crisis is a growing public health issue, and nurses must practice on the "front lines" (American Nurses Association, 2018). Nurses can use CTC as a comprehensive approach to the issue by working with youth to address opioid use before it happens. Nurses are well-aligned to serve as key leaders in CTC community partnerships given their education and exposure to prescription opioids in the care setting (American Nurses Association, 2018). Moreover, CTC gives nurses the opportunity to participate in health promotion and risk reduction, an important competency for nurses according to *Provision 8* in the *ANA Code of Ethics for Nurses* (American Nurses Association, 2015). Nurses play an essential role in the successful implementation of the CTC prevention process and should consider jumpstarting CTC coalitions in their communities.

Title:

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Communities That Care, Community-Based Prevention and Opioid Crisis

References:

American Nurses Association. (2018). *The opioid epidemic: The evolving role of nursing*. Retrieved from https://www.nursingworld.org/~4ae212/globalassets/docs/ana/ana_nursings-role-in-opioid-crisis_2016.pdf

American Nurses Association. (2015). *Code of ethics for nurses with interpretive statements*. Retrieved from: Nursesbooks.org.

Anderson, D. (2018). *Thousands of drug disposal pouches to be distributed to state from APG starting Saturday*. The Aegis. Retrieved from <http://www.baltimoresun.com/news/maryland/harford/aegis/ph-ag-drug-disposal-pouches-20180419-story.html>

Behavioral Health Administration. (2017). Drug-and alcohol-related intoxication deaths in Maryland, 2016. Retrieved from https://bha.health.maryland.gov/OVERDOSE_PREVENTION/Documents/Maryland%202016%20Overdose%20Annual%20report.pdf

Butler, E., & Vought, A. (2017). Majority of Harford heroin overdose victims are white, male, 25 - 25 years old. The Aegis. Retrieved from <http://www.baltimoresun.com/news/maryland/harford/aegis/ph-ag-2016-heroindeaths-0203-20170202-story.html>

Centers for Disease Control and Prevention. (2017a). *Opioid overdose*. Retrieved from <https://www.cdc.gov/drugoverdose/opioids/index.html>

Centers for Disease Control and Prevention. (2017b). *Wide-ranging online data for epidemiological research (WONDER)*. Retrieved from <https://wonder.cdc.gov/>

Centers for Disease Control and Prevention. (2018) *2018 Annual surveillance report of drug-related risks and outcomes--United States*. Retrieved from <https://www.cdc.gov/drugoverdose/pdf/pubs/2018-cdc-drug-surveillance-report.pdf>

Gloppen, K. M., Brown, E. C., Wagenaar, B. H., Hawkins, J. D., Rhew, I. C., & Oesterle, S. (2016). Sustaining adoption of science-based prevention through communities that care. *Journal of Community Psychology*, 44(1), 78-89. doi:10.1002/jcop.21743

Hawkins, J.D., Oesterle, S., Brown, E. C., Monahan, K. C., Abbott, R. D., Arthur, M. W., & Catalano, R. F. (2012). Sustained decreases in risk exposure and youth problem behaviors after installation of the Communities That Care prevention system in a randomized trial. *Archives of Pediatrics & Adolescent Medicine*, 166(2), 141-148. doi: 10.1001/archpediatrics.2011.183

Hawkins, J.D., Oesterle, S., Brown, E., Abbott, R.D., & Catalano, R.F. (2014). Youth problem behaviors 8 years after implementing the Communities That Care prevention system. A community randomized trial. *JAMA Pediatrics*, 168(2), 122-129. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/24322060>

Kim, B. K., Gloppen, K. M., Rhew, I. C., Oesterle, S., & Hawkins, J. D. (2015). Effects of the communities that care prevention system on youth reports of protective factors. *Prevention Science*, 16(5), 652-662. doi:10.1007/s11121-014-0524-9

Oesterle, S., Hawkins, J. D., Kuklinski, M. R., Fagan, A. A., Fleming, C., Rhew, I. C., . . . Catalano, R. F. (2015). Effects of communities that care on males and females drug use and delinquency 9 years after baseline in a community-randomized trial. *American Journal of Community Psychology*, 56 (3-4), 217-228. doi:10.1007/s10464-015-9749-4

Oesterle, S., Kuklinski, M. R., Hawkins, J. D., Skinner, M. L., Guttmanova, K., & Rhew, I. C. (2018). Long-term effects of the Communities That Care trial on substance use, antisocial behavior, and violence through age 21 years. *American Journal of Public Health*, 108(5), 659-665. Retrieved from <https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2018.304320>

Rhew, I. C., Hawkins, J. D., Murray, D. M., Fagan, A. A., Oesterle, S., Abbott, R. D., & Catalano, R. F. (2016). Evaluation of community-level effects of communities that care on adolescent drug use and delinquency using a repeated cross-sectional design. *Prevention Science*, 17(2), 177-187. doi:10.1007/s11121-015-0613-4

Van Horn, M. L., Fagan, A. A., Hawkins, J. D., & Oesterle, S. (2014). Effects of the communities that care system on cross-sectional profiles of adolescent substance use and delinquency. *American Journal of Prevention Medicine*, 47(2), 188-197. doi:10.1016/j.amepre.2014.04.004

Abstract Summary:

Drug-related deaths in the United States have reached an all-time high, an increase attributed to the nation's current opioid epidemic. Harford County, Maryland is equally challenged by the opioid crisis and plans to implement "Communities that Care" a community prevention process aimed to decrease opioid use among youth.

Content Outline:

1. Introduction
 1. Fatal opioid overdoses continue to rise at all levels.
 1. Opioid-related deaths in the United States (US) have quadrupled since 1999.
 2. The state of Maryland reported large increase in opioid-related deaths in 2016.
 3. County-level analysis suggests an increase in heroin-related deaths from 2015-2017.
 2. Harm reduction has not been effective in Harford County, therefore evidence-based prevention measures may also be important.
 1. As of August 16, 2018 there have been 275 drug overdoses in Harford County with 52 fatal outcomes.
2. Body
 1. The evidence-based prevention model, "Communities that Care (CTC)," may be a solution to a local opioid crisis.
 1. CTC decreased tobacco, alcohol use, and delinquent behavior among youth.
 2. Youth in CTC communities were more likely to sustain abstinence from gateway drugs.
 3. Males in CTC communities were less likely to use marijuana and inhalants.
 2. The Johns Hopkins School of Nursing, City of Aberdeen, and Harford County Drug Policy Office are implementing CTC in Harford County.
 1. The interprofessional team will guide the community through five-phases.
 2. Currently, Phase 1: Getting Started has been completed.
 3. Phase II: Getting organized is in progress.
 4. Phase III: Create a community profile
 5. Phase IV: Create an action plan
 6. Phase V: Implement and evaluate
3. Conclusion
 1. Nurse are key players in CTC collaborations.

1. Nurses have knowledge regarding prescription, administration, and use of opioids.
2. The ANA Code of Ethics states that the nurse should "collaborate with other health professionals and the public to protect human rights, health diplomacy, and reduce health disparities."
2. If proven effective, CTC should be translated to communities in opioid crisis nationwide and across the globe.
 1. CTC has been tested and proven effective in a randomized control trial in 24 communities in seven states.
 2. The opioid epidemic is growing in the US and spreading globally, therefore effective interventions must be identified and implemented.

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Author Summary: Lauren is a graduate from UC Davis who is passionate about redesigning communities to improve health. She was selected to be Central Valley Scholar for her commitment to improving rural California communities. She continues to explore creative solutions to community health problems through the Research Honors Program at the Johns Hopkins School of Nursing. After completing her Master's in Nursing, she plans to take her nursing practice into the community and continue her nursing research.

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Any relevant financial relationships? Yes

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Signed on 11/07/2018 by *Vinciya Pandian*