

permit entry to those with legal status in the United States only after revoking 100 000 visas from the seven Muslim-majority countries. The alarming nature of the executive order presumes that one chooses to be displaced or a refugee. But most refugees are forced out of their countries because of persistent war, torture, or persecution, and have the eventual goal of returning home once the environment has been deemed safe.

Fortunately, many US organizations offer safe spaces for refugees and those looking to resettle. For example, New York State, long a site of refuge for immigrants, continues to open its doors to refugees and offers many locations that provide safety and security for those in need. More than just resettlement, the Mohawk Valley Resource Center for Refugees also provides free adult learning courses,

job placement, legal consultation, and mental health and physician services as needed (bit.ly/2oASu2t). Similar facilities across the United States have garnered support from activist organizations such as the International Refugee Assistance Project, the American Refugee Committee, and Lutheran Immigration and Refugee Service (bit.ly/2oASu2t). Donations for these organizations have skyrocketed since the signing of the 2017 executive order.⁷

Public health professionals can serve this vulnerable population by first highlighting the precarious journey that refugees experience, then by understanding the devastating effects displacement can have on both children and adults, and finally by supporting refugees as they recover from the extreme trauma and stress.⁷ Promoting resiliency is an investment in both the short- and long-term health,

treatment, and care of displaced and refugee persons in communities across the world.

To avoid a potential mental health crisis, it is imperative that we act to care for and provide appropriate and supportive resources to displaced and refugee children. By extending services beyond physical needs, these children are more likely to have better developed neurological and biological systems—systems crucial for prosocial and nonviolent, resilient behavior. *AJPH*

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REFERENCES

1. United Nations High Commissioner for Refugees. Figures at a glance. Available at: <http://www.unhcr.org/en-us/figures-at-a-glance.html>. Accessed February 27, 2016.

2. Montgomery E. Trauma, exile and mental health in young refugees. *Acta Psychiatr Scand Suppl*. 2011;(440):1–46.
3. Betancourt TS, Newnham EA, Layne CM, et al. Trauma history and psychopathology in war affected refugee children referred for trauma-related mental health services in the United States. *J Trauma Stress*. 2012;25(6):682–690.
4. Dubow EF, Huesmann LR, Boxer P. A social-cognitive-ecological framework for understanding the impact of exposure to persistent ethnic-political violence on children's psychosocial adjustment. *Clin Child Fam Psychol Rev*. 2009;12(2):113–126.
5. Kane JC, Ventevogel P, Spiegel P, Bass JK, Van Ommeren M, Tol WA. Mental, neurological, and substance use problems among refugees in primary health care: analysis of the Health Information System in 90 refugee camps. *BMC Med*. 2014;12(1):228.
6. Hebebrand J, Anagnostopoulos D, Eliez S, et al. A first assessment of the needs of young refugees arriving in Europe: what mental health professionals need to know. *Eur Child Adolesc Psychiatry*. 2016;25(1):1–6.
7. Philbrick AM, Wicks C, Harris I, et al. Make refugee health care great [again]. *Am J Public Health*. 2017;107(5):656–658.

Public Health Research Priorities to Address US Human Trafficking

In February 2017, the US presidential administration affirmed a commitment to address human trafficking. The US Trafficking Victims Protection Act of 2000 (Pub Law No. 106–386) defines human trafficking as “the recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.” Human trafficking is often confused with smuggling, which involves the consensual but illegal transportation of a human across a national border.

Victims of human trafficking include US-born and naturalized

citizens, permanent residents, legal visitors, and undocumented immigrants. They are trafficked in commercial sex and myriad forms of labor, including domestic work, agricultural work, and construction work. Minors engaged in commercial sex are considered to be trafficking victims, regardless of the use of force, fraud, or coercion. In fiscal year 2015, the US Department of Homeland Security and the US Department of Justice opened 2847 investigations of suspected human trafficking cases and prosecuted 377 defendants for human trafficking crimes.¹ In that same year, the 21 federally funded victim services agencies in the United States reported 3889 open client cases.

These cases are believed to represent a fraction of all human trafficking activity in the nation.²

The negative health consequences of human trafficking are well established and include neurologic, gastrointestinal, cardiovascular, musculoskeletal,

dermatological, reproductive, sexual, dental, and mental health problems. Nonetheless, many questions remain about the nature and scope of human trafficking, its determinants, and how to mitigate the problem.

A public health approach to human trafficking involves estimating the size of the problem; identifying risk and protective factors for victimization, perpetration, survival, and resilience

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PROPOSED AGENDA FOR PUBLIC HEALTH RESEARCH ON HUMAN TRAFFICKING

1. Determine the prevalence and incidence of human trafficking with better precision.
2. Estimate the cost burden of human trafficking.
3. Identify risk and protective factors for human trafficking victimization, perpetration, survival and resilience.
4. Investigate effectiveness of healthcare screening and response protocols.
5. Implement and evaluate human trafficking prevention strategies.

Source: HEAL Trafficking Research Committee (<https://healtrafficking.org>)

across multiple levels of the social ecology; and developing evidence-based strategies to improve victim health. On the basis of this framework, and the existing evidence about early stage human trafficking prevention efforts, we propose five research priorities that should be accomplished over the next decade (see the box on this page).

PRIORITY 1: PREVALENCE AND INCIDENCE

There is an urgent need to improve the precision of estimates of the number of human trafficking victims in the United States or any one state, county, or city. The methods used to

calculate estimates of human trafficking in the US are rarely described in the scholarly articles and government reports in which they are presented.³ Criminal justice data yield underestimates because many traffickers elude detection. Similarly, estimates from human trafficking service provider agencies or hotlines may represent only a portion of cases or may overestimate cases. There have been at least two attempts to estimate the number of human trafficking survivors in a particular US region using innovative methods such as capture–recapture techniques and respondent–driven sampling,^{3,4} but the resulting estimates are disparate and their accuracy is uncertain.

It has been suggested that more precise estimates may be derived through the use of probability sampling, simple and systematic random sampling, nonprobability sampling, venue–based sampling, snowball sampling, chain referral sampling, respondent–driven sampling, or capture–recapture techniques.⁵ Once credible estimates have been generated, ongoing monitoring of the number of new cases per year (i.e., incidence) and percentage of the population experiencing victimization (i.e., prevalence) will enable policymakers to evaluate the effectiveness of policies and interdiction efforts.

PRIORITY 2: COST BURDEN

Understanding the cost burden of human trafficking to health and human services and the criminal justice system will help clarify how to prioritize human trafficking prevention relative to other problems.

The cost burden cannot be estimated without sound estimates of prevalence and incidence, but once those estimates become available it will be important to assess the net cost of human trafficking on individuals and communities to evaluate whether resources are being expended effectively.

PRIORITY 3: RISK AND PROTECTIVE FACTORS

Meaningful prevention and intervention strategies cannot be developed on the basis of risk markers without causal relationship to human trafficking. The existing evidence base provides copious information about correlates of human trafficking victimization, but researchers and program planners need more than lists of variables that are associated with human trafficking victimization cross-sectionally.

Not all factors correlated or associated with human trafficking are risk factors. Investigations of modifiable determinants of human trafficking and factors contributing to resilience and survival among trafficked people are necessary for the development of effective prevention and rehabilitation programs.

PRIORITY 4: SCREENING AND RESPONSE

Through state, regional, and local task forces, public health professionals and health care providers contribute to interdisciplinary antitrafficking efforts across the United States. Additionally, many health care agencies are developing their

own protocols to identify and respond to patients at risk for trafficking. Although the health care setting may be ideal for interventions with victims, many worthwhile empirical questions remain about the investment of resources in healthcare programs to prevent or intervene in human trafficking.

First, there has been a proliferation of assessment tools for identifying human trafficking victims (i.e., “indicator checklists”),⁶ but their predictive validity is unknown. The widespread use of screening protocols in the absence of sensitivity and specificity data could cause entire subclasses of victims to be missed or burden clinicians and health systems with tools that only rarely correctly identify victims. Furthermore, even if clinical screening tools have good predictive validity, clinicians and agencies may be unable to assist trafficked patients they identify if victim services are not available.

To identify or expose someone as a trafficking victim without a plan to adequately address her or his complex needs can endanger the patient. To ensure that responses to victims improve outcomes, researchers should engage in systems-level research to investigate healthcare institutions’ best practices for managing patients at risk for human trafficking.

PRIORITY 5: PREVENTION STRATEGIES

As information accumulates about risk and protective factors for human trafficking, comprehensive prevention strategies should be developed. These

strategies should be theoretically based, be evidence informed, address different levels of the social ecology, and involve multiple components. Each prevention strategy should be developmentally appropriate for the age group it seeks to affect, be culturally appropriate, and work synergistically with other, related prevention strategies such as those designed to reduce partner violence and child maltreatment.⁷ Ultimately, antihuman trafficking efforts should result in a reduction of human trafficking incidence and improved identification, survival, health, and well-being among survivors. However, little is known about the effectiveness of human trafficking policies and programs or their long-term outcomes. Data collection and sharing are essential, as are policy analyses and natural epidemiology experiments. Studies of child protection, domestic violence, immigration, labor

regulation, minimum wage, and drug and sex criminalization laws will provide key intersectional knowledge to advance the human trafficking response.

In conclusion, a robust program of research that achieves the five priority aims outlined in this agenda will make substantial advances toward achieving the US goal of reducing human trafficking and ending the suffering of the people who experience it. **AJPH**

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REFERENCES

1. US Department of State. Trafficking in persons report. 2016. Available at: <http://www.state.gov/j/tip/rls/tiprpt>. Accessed September 20, 2016.
2. Nichols AJ, Heil EC. Challenges to identifying and prosecuting sex trafficking

cases in the Midwest United States. *Fem Criminol*. 2014;10(1):7–35.

3. Zhang SX. Measuring labor trafficking: a research note. *Crime Law Soc Change*. 2012;58(4):469–482.
4. Williamson C, Perdue T, Belton L, Burns O. Domestic sex trafficking in Ohio. 2012. Available at: <http://www.ohioattorneygeneral.gov/getattachment/1bc0e815-71b6-43f5-ba45-c667840d4a93/2012-Domestic-Sex-Trafficking-in-Ohio-Report.aspx>. Accessed March 7, 2017.
5. Fedina L, DeForge BR. Estimating the trafficked population: public-health research methodologies may be the answer. *Journal of Human Trafficking*. 2017;3(1):21–38.
6. Stoklosa H, Dawson MB, Williams-Oni F, Rothman EF. A review of US health care institution protocols for the identification and treatment of victims of human trafficking. *Journal of Human Trafficking*. 2016;4:1–9.
7. Nation M, Crusto C, Wandersman A, et al. What works in prevention: principles of effective prevention programs. *Am Psychol*. 2003;58(6–7):449–456.

What Public Health Practitioners Need to Know About Unhealthy Industry Tactics

If you are working to improve public health and the environment, you need to know what your opponents are up to. Provided below is a quick guide to their tactics, which I have assembled as a summary from three sources: Oreskes and Conway's *Merchants of Doubt* (reviewed in this issue),¹ Wiist's "The Corporate Playbook, Health, and Democracy: The Snack Food and Beverage Industry's Tactics in Context,"² and Freudenberg's *Lethal but*

Legal,³ reviewed in a previous issue of *AJPH*.⁴

1. ATTACK LEGITIMATE SCIENCE

- Accuse science of deception, calling it "junk science" or "bad science," claiming science is manipulated to fulfill a political agenda.
- Attack the scientific institutions and government agencies perceived to be acting against corporate interests.

- Insist that the science is uncertain by:
 - Claiming we don't know what's causing it, and more research is needed.
 - Withholding any data unfavorable to the corporate product.
- Using information in a misleading way; cherry-picking by using facts that are true but irrelevant.
- Insist that there are many causes to a health or environmental problem, and that addressing just one of them will have minimal impact.
- Exaggerate the uncertainty inherent in any scientific endeavor to undermine the status of established scientific knowledge.
- Use corporate-funded studies.

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