Viewpoint

Transforming Our World: Implementing the 2030 Agenda Through Sustainable Development Goal Indicators

Bandy X. Lee[a,*], Finn Kjaerulf[b], Shannon Turner[c], Larry Cohen[d], Peter D. Donnelly[e], Robert Muggah[f], Rachel Davis[d], Anna Realini[d], Berit Kieselbach[g], Lori Snyder MacGregor[h], Irvin Waller[i], Rebecca Gordon[j], Michele Moloney-Kitts[j], Grace Lee[a] and James Gilligan[k]

[a]Law and Psychiatry Division, Yale University, 34 Park Street, New Haven, CT 06519, USA

[b]DIGNITY – Danish Institute Against Torture, Copenhagen, Denmark

[c]Prevention of Violence Canada-Prévention de la violence, Quebec City, Canada

[d]Prevention Institute, Oakland, USA

[e]Public Health Ontario, Toronto, Canada

[f]Igarapé Institute (Brazil) and the SecDev Foundation (Canada), University of Oxford and the Graduate Institute of International Studies in Geneva, Geneva, Switzerland

[g]World Health Organization, Geneva, Switzerland

[h]Region of Waterloo Public Health and Emergency Services, Waterloo, Canada

[i]University of Ottawa, Ottawa, Canada

[j]Together for Girls, Washington, DC, USA

[k]New York University, New York, NY, USA

*Corresponding author. E-mail: bandy.lee@yale.edu

Abstract   The United Nations' 2030 Agenda for Sustainable Development recognizes violence as a threat to sustainability. To serve as a context, we provide an overview of the Sustainable Development Goals as they relate to violence prevention by including a summary of key documents informing violence prevention efforts by the World Health Organization (WHO) and Violence Prevention Alliance (VPA) partners. After consultation with the United Nations (UN) Inter-Agency Expert Group on Sustainable Development Goal Indicators (IAEG-SDG), we

select specific targets and indicators, featuring them in a summary table. Using the diverse expertise of the authors, we assign attributes that characterize the focus and nature of these indicators. We hope that this will serve as a preliminary framework for understanding these accountability metrics. We include a brief analysis of the target indicators and how they relate to promising practices in violence prevention.

What Can and Should be Done to Sustain Momentum and Strategic Direction for Global Violence Prevention?

The 2030 Agenda for Sustainable Development will shape global development policy and actions for the next 15 years.[1] Ensuring momentum and strategic direction for global violence prevention will require concerted action to kick-start the process in the next 2–5 years. On 22–23 September 2015, in Geneva, the World Health Organization (WHO) hosted the 7th Milestones of a Global Campaign for Violence Prevention Meeting for violence prevention researchers and practitioners from all over the world. The conference theme, "Violence Prevention and the 2030 Agenda for Sustainable Development," encouraged discussion of the need for specific indicators for measurement, and about priorities for data collection related to the violence reduction targets. We outline selected conclusions below. The Violence Prevention Alliance (VPA) is a network of 63 institutions involved in violence prevention worldwide, bringing together WHO Member States, international agencies, civil society organizations, and academic institutions. The VPA plays a key role in uniting a vision of effective violence prevention through multi-sectoral collaboration. Because of its unique forum, which includes sectors at all levels (community, national, regional, and international) the VPA offers an invaluable opportunity for bridging the gap between theory and practice, evidence and implementation, to identify priority areas for global leadership in violence research.

Figure 1 provides a timeline and summary of key references designed to support the Global Campaign to Prevent Violence. A Global Plan of Action to strengthen Health Services is under development and will be an important strategy for achieving SDG's (Table 1).

Global Campaign for Violence Prevention

2002
First report on the scope and scale of violence around the globe. Introduced a Typology of Violence and ecological model for understanding violence. Explained the public health approach to addressing and preventing violence. Helped to launch the Global Campaign for Violence Prevention

2008
Preventing violence and reducing its impact How development agencies can help

A key aim is to stimulate dialogue on the role of international development agencies in the prevention of violence globally, and ultimately to increase investment in a commonly agreed set of applied violence prevention strategies.

2009
Violence prevention: the evidence is a set of briefings on what works to prevent interpersonal violence (including against women and girls), and self-directed violence The Evidence includes: promoting safe, stable and nurturing relationships between children and their parents and caregivers; developing life skills in children and adolescents; reducing availability and harmful use of alcohol; reducing access to guns, knives and pesticides; promoting gender equality; changing cultural norms that support violence; and victim identification, care and support.

2012
The Global Action Plan calls for countries to: Inrease the priority of evidence-informed violence prevention as a global public health and development issue . Build the foundations for violence prevention. Implement Violence prevention strategies

2014 - Jointly published by WHO, UNDP, UNODC
Data from 133 countries assess national efforts to address interpersonal violence, namely child maltreatment, youth violence, intimate partner and sexual violence, and elder abuse.
Report calls for a scaling up of violence prevention programmes; stronger legislation and enforcement of laws relevant for violence prevention; and enhanced services for victims of violence.

2015
World Health Assembly Resolution May 2015 -WHA67.15
Calls for the creation of a **Global Plan of Action to strengthen the role of the health systems to** address interpersonal violence, in particular against women and girls, and against children

2015
• Goal 5: Achieve gender equality and empower all women and girls
• Goal 16: promote peaceful and inclusive societies for sustainable development, the provision of access to justice for all, and building effective, accountable institutions at all levels.

Targets:
5.1 End all forms of discrimination of women and girls everywhere
5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and other types of sexual esploitation
5.3 Eliminate all harmful practices , such as child, early and forced marriage, and female genital mutilation

TARGETS:
16.1 Significantly reduce all forms of violence and related death rates everywhere
16.2 End abuse , exploitation, trafficking and all forms of violence against and torture of children
16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels

Figure 1: Global violence prevention policy and planning documents.
Source: World Health Organization: http://www.who.int/violence_injury_prevention/violence
https://sustainabledevelopment.un.org/?menu=1300.

Table 1: Violence-related SDG indicators by timeframe, governance, status, and type

Target	Objective	Proposed Indicator	Timeframe: immediate medium term long (I M L) term	Governance: local regional national (LRN)	Status: Population service environment (PSE)	Type: structural driver behaviour/ Exposure medical condition (SBM)
Goal 5: Achieve gender equality and empower all women and girls						
5.2	Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation					
5.2.1		Proportion of ever –partnered women and girls (aged 15-49) subjected to physical and/or sexual violence by a current or former intimate partner, in the last 12 months	Immediate	LRN	P	B/E
5.2.2		Proportion of women and girls (aged 15-49) subjected to sexual violence by persons other than an intimate partner, since age 15	Immediate	LRN	P	B/E
5.3	Eliminate all harmful practices, such as early and forced marriage and female genital mutilation					
5.3.1		Percentage of women aged 20–24 who were married or in a union before age 18 (i.e. child marriage)	medium	LRN	PE	B/E
5.3.2		Percentage of girls and women aged 15–49 years who have undergone FGM/C by age group (for relevant countries only)	Medium	LRN	P E	B/E

Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

16.1	Significantly reduce all forms of violence and related deaths everywhere				
16.1.1	Number of victims of intentional homicide by age, sex, mechanism and where possible type of perpetrator, per 100,000 population	Immediate	LRN	P	B/E
	This indicator is still under discussion – Grey	immediate	LRN	P E	S B/E
16.1.2	Conflict-related deaths per 100,00 people (disaggregated by age, sex, and cause)				
16.2	End abuse, exploitations, trafficking and all forms of violence against and torture of children				
16.2.1	Percentage of children aged 1–14 years who experienced any physical punishment by caregivers in the past month	medium	LRN	P	B/E
16.2.2	Number of detected and non-detected victims of human trafficking per 100,000; by sex, age and form of exploitation	immediate	LRN	PE	S B/E
	Additional	Long Term	LRN	P E	B/E
	This indicator is still under discussion- Grey				
	Percentage of young women and men aged 18–24 years who experienced sexual violence by age 18				
16.3	Promote the rule of law at the national and international levels and ensure equal access to justice for all				
16.3.1	This indicator is still under discussion - Grey	Immediate	LRN	PSE	SB/E
	Percentage of victims of violence in the previous 12 months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms (also called crime reporting rate)				
16.3.2	Unsentenced detainees as a percentage of the overall prison population	Immediate	LRN	P S E	S B/E

Table 1: *continued*

Target	Objective	Proposed Indicator	Timeframe: immediate medium term long (I M L) term	Governance: local regional national (LRN)	Status: Population service environment (PSE)	Type: structural driver behaviour/ Exposure medical condition (SBM)
16.4	By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime					
16.4.1	This indicator is still under discussion - Grey	Total value of inward and outward illicit financial flows (in current US $)	Immediate	RN	E	S
16.4.2	This indicator is still under discussion - Green	Percentage of seized and collected firearms that are recorded and traced, in accordance with international standards and legal instruments	Immediate	LRN	E	S
	Additional - Green	Percentage of small arms marked and recorded at the time of import in accordance with international standards	Immediate	N	E	S
16.7	Ensure responsive, inclusive, participatory and representative decision-making at all levels					
16.7.1		Proportions of positions (by age, sex, disability and population groups) in public institutions (national and local legislatures, public service, and judiciary) compared to national distributions	Immediate	LRN	S E	S

				LRN		
16.10	Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements					
16.10.1	This indicator is still under discussion - Grey	Number of verified cases of killing, kidnapping, enforced disappearance, arbitrary detention and torture of journalists, associated media personnel, trade unionists and human rights advocates in the previous 12 months	Immediate	LRN	P E	S B/E
16.a.	Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime					
16.a.1	This indicator is still under discussion - Grey	Percentage of victims who report physical and/or sexual crime to law enforcement agencies during the past 12 months Disaggregated by age, sex, region and population group	medium	LRN	P S	B/E
16.b.	Promote and enforce non-discriminatory laws and policies for sustainable development					
16.b.1		Percentage of population having personally felt discriminated against or harassed within the last 12 months on the basis of a ground of discrimination prohibited under international human rights law. Disaggregate by age, sex, region and population group	Long Term	LRN	P E	B/E S

Next Steps and Specific Recommendations for the Way Forward

It is important to increase our focus on risk and resilience factors that concern violence. The three keys to preventing violence are as follows:

(1) Understanding that violence is a complex issue and requires a comprehensive approach.
(2) Addressing risk and resilience factors with attention to increased vulnerability due to gender inequality, age, etc.
(3) Developing an integrated strategy for action.

While investments in violence prevention and response have increased in recent years, overall they have been woefully inadequate and highly disproportionate to the magnitude of the problem. Community and interpersonal violence not only cause immediate health and safety issues — including injuries, death, and emotional trauma — but also long-term sequelae affecting the financial and personal capital of entire communities and societies. Currently, the social welfare, criminal justice, and health sectors bear the largest burden for dealing with the consequences of violence, while programs focus on responses after violence occurs. However, high levels of violence and conflict are major obstacles for inclusive socio-economic development, not to mention a drain to resources.[2] We now know that *violence is preventable* with commitment and sustained attention. A great deal of research now highlights key societal, community, familial, and individual risk and resilience factors, and we have a growing understanding of *interventions that work* and are ready for implementation.

The next step, then, requires expanding approaches that prevent violence *before* it occurs — not only through programs, but through systemic changes in environmental factors and a more comprehensive set of prevention activities, including changes in social norms around gender inequality and violence acceptance; improving and enforcing laws and policies, institutional practices, and public education; and cooperating among multiple partners. Addressing the 'determinants of health'[3] includes prioritizing data collection on a few known, universal risk factors, such as firearms ownership and access; alcohol use and access; illicit drug use and drug-trafficking; exposure to violence; social determinants/inequality measures and institutional legitimacy. It also requires looking at the underlying elements that allow these factors to

proliferate in the first place. In each of these areas there is strong evidence for interventions that work.

Sustainable violence prevention requires transformation of the systems and institutions committing and supporting state-sanctioned violence into systems supporting legitimacy and inclusiveness, a medium- to long-term undertaking that requires additional quality data. This will require a better understanding of all forms of violence, including collective and structural violence. A stronger focus on innovative studies in this area can create new insights and contribute to the development of measurable indicators to guide global development policies and action toward the sustainable transformation of institutions to promote safety and security.

Recommendations for Capacity Development and Institutional Reform

Preventing violence entails building on partnerships across global and local institutions, identifying and using existing United Nations (UN) instruments, and prioritizing multi-sectoral approaches. We need to refine existing knowledge and, more importantly, to support communities and countries to develop the political will to translate that knowledge into practice. Local authorities and national governments must be the focus and champions of these changes; we must engage key actors like police, health professionals, and social workers, who have direct contact with violence on the ground, and support them to build capacity; and we need to work with multiple sectors to develop guidelines regarding their roles in addressing and preventing violence within their own mandates.

Ensuring the SDGs Account for Violence Prevention: A Preliminary Discussion

The SDG's present a golden opportunity for achieving far-reaching and collaborative gains on violence prevention around the world.[4] Of note, the United Nations (UN) Statistical Commission created an Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs) in March 2015. It comprises Member States as well as regional and international

agencies as observers. The IAEG-SDGs are expected to provide a global indicator framework — and associated global and universal indicators — for consideration by the Statistical Commission at its 47th session in March 2016 (See http://unstats.un.org/sdgs/iaeg-sdgs/). After consultation with the United Nations UN IAEG-SDG, we selected preliminary indicators to facilitate monitoring of progress on SDGs.[5] Although we included indicators on lethal and non-lethal violence, we did not include key metrics associated with violent conflict mortality due to political disagreement and concern over their methodological rigor.[6,7]

Whether measuring violence or other development priorities, indicators alone do not fully capture the dynamics of all situations equally. We must interpret indicators in the context from which they arise. Their use in isolation from qualitative and other contextual research insufficiently captures the experience of a given setting or the underlying factors influencing a specific environment. Nevertheless, indicators serve as critical markers toward a goal and will help illuminate progress or failure to meet objective targets.

Two SDGs directly address violence and can play an important role in shaping global violence prevention efforts. These are SDG 5 ("Achieve Gender equality and empower all women and girls") and SDG 16 ("Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels"). There are several other SDGs that address important underlying risk factors for interpersonal violence like alcohol and drugs and safety in schools and cities. SDG 11, for example, has a potential indicator 11.7.2: "Proportion of women subjected to physical or sexual harassment, by perpetrator and place of occurrence (last 12 months)" (SDG 11 on safe, inclusive, resilient and sustainable cities also includes some references to the promotion of security, but we have chosen not to discuss it within the length of this article). Following these SDGs also helps illuminate conditions that impact rates of violence.

Tracking global, national, regional, and municipal indicators can allow us to achieve some measurements of progress toward the SDGs. Given that many countries, regions, and cities are on an unequal footing when it comes to data collection, surveillance, and reporting, the road ahead is challenging.[8]

There are other barriers to consider. Standard definitions for categories of violence and means of validating prevalence are necessary before we can analyze and compare the data. Reaching agreement on a core set of indicators among various constituencies is also a contentious and demanding process. Any final determination of indicators comes with its own limitations as 'what gets counted counts' – and influences the comprehensiveness of any assessment. For example, measurement of sexual violence often depends entirely on incident reports. We know from population survey data that many do not report assaults, and that the ways in which the law defines sexual violence influence what appears in reports. When one selects indicators from criminal justice or other systems, it is important to acknowledge that these constitute proxy measures for actual incidence and can vary by a multitude of social and cultural factors, making it likely that we are undercounting true incidence. For example, recent analyses of human services data from 24 countries suggested that estimates of gender-based violence prevalence derived from health or police data will result in huge underestimates, with at best 9 % of incidents occurring in developing contexts.[9] We also must acknowledge that if violence prevention and response are working, rates of violence according to service surveillance may rise initially, as more people are aware and seek support and services. One way to address this challenge is to use ancillary data to contextualize the primary indicators, which the international committee has selected. This helps to make more certain that we understand the full story surrounding an indicator. For example, ancillary data on the greater availability of rape kits in emergency rooms in a jurisdiction could help explain an increase in criminal charges for sexual assault within that jurisdiction; conversely, a lack of access to rape kits could mean a decrease in criminal charges and investigations regarding sexual assaults.

Metrics can influence the design, implementation, and evaluation of interventions. This is a risk in the SDG process of limiting the types and context of reporting indicators. The way we frame a 'problem' in society can influence approaches to the solution. For example, when measuring violence and addressing prevention through surveillance, metrics for crime may provide us with some insight. Communities addressing high levels of crime reports can interpret this as a need for more police officers, but a public health approach would indicate the need to address causal factors through community-based violence

prevention, while understanding (and possibly transforming) how we define 'crime' and measure it within society. Solutions to violence call for a public health approach with a focus on evidence-informed interventions. (For a more comprehensive discussion of this issue, please see *Less Law More Order*[10,11] and *A Manifesto for fragile cities*[12,13]).

The SDG process can benefit from learning from countries and cities where violence prevention has generated results. For a case study of this, we can look to Latin America. After decades of heavy-handed crime prevention – 'mano dura' in the vernacular – some Latin American cities such as Bogota, Medellin, and Mexico are changing their tactics dramatically. Since the 1990s, elected officials, private business people, and civil society groups started experimenting with new approaches consisting of "community-level violence prevention" in some of the region's fragile cities.[12] (For more about fragile environments, see also in this Special Issue: Kumar and Willman[14]).

Such approaches involve strategies that target places, people, and behaviors. After making some important gains, they are today helping to reshape the global debate on urban safety. Latin America's new approach to urban crime prevention is producing some spectacular declines in murder and victimization. Even before investing in urban renewal, new forms of policing, at-risk youth programs, or alcohol and firearm restrictions, Latin American leaders focused first on attitudes and values. A first step was to craft a new culture of citizenship, encouraging locals to regulate themselves and one another. In Bogota, for example, local governments paid street mimes (performers who work in public spaces) to deliver 'behavior cards' for those who broke rules. This allowed for modeling desired behaviors in an often comedic and expansive way, emphasizing the message or social norm the governments wanted communicated through theater. City planners also started up women's nights, cleaned up public spaces, created amnesties for collecting firearms, reduced alcohol sales and outlets in hot spots, and created national and metropolitan observatories to track crime and violence. Over time, they complemented these investments in social norm and behavior change with concrete investments in public security and violence prevention programs.

On the basis of a careful reading of the evidence, civic leaders in some major Latin American cities began investing in data-driven and

community-based policing and gun collection programs. In some cases, they invested in conditional cash transfer programs (welfare programs that are conditional upon the receivers' meeting certain criteria), early childhood support for single-headed female households, and after-school activities for at-risk young males. The last has been especially successful in reducing both violent and property-related crime.

Despite ongoing challenges related to collective violence and displacement, and interpersonal violence, these holistic approaches represent great strides in violence prevention and response, and many of these Latin American innovations in violence prevention reflect best practices now known to the global public health community. Effective use of data and design of comprehensive approaches often succeeds where narrowly designed law enforcement measures have failed. The VPA led discussions in Geneva in 2015 that point to a need for indicators to track progress at three levels:

- Immediate effects ('quick fix' indicators measuring short term visible gains and creating and/or sustaining political will for ongoing violence prevention actions).
- Medium-term effects ('proximate' indicators that can track outcome metrics and measure the intermediate effects of violence prevention on communities).
- Long-term effects ('structural' indicators that can measure sustained reductions in the underlying risks of violence in institutions, societies, and at-risk population groups).

Researchers can choose several indicators at all three levels of analysis. Possible immediate effect indicators could track the prevalence of firearms, alcohol and drugs; increases in trauma-informed care, treatment and intervention for offenders and potential perpetrators, parenting support, early childhood development programs, life skills training, community-based social norms change; and promotion of peace education in schools. Medium-term effect indicators could measure social norms and behavior change; urban upgrading and poverty de-concentration programs; reduced community-level trauma; and increased social protection with an emphasis on human dignity. Long-term effect indicators should consist of society-level poverty and inequality reduction, institutional reform, and improved governance.

SDG Indicators for Sustaining and Directing Momentum: An Outline for Further Action

We will now examine indicators that the IAEG SDG Indicator expert group has selected.[15] The IAEG-SDG meets periodically to determine which indicators researchers will use to measure the SDG targets (accepted indicators are designated as 'green') and to guide the efforts of national statistical offices. A critical review of the IAEG-SDG process will support balancing the SDG indicators framework from a public health perspective. Such an analysis can facilitate the implementation of a public health approach to violence prevention and ensure that we employ an ecological approach to reduce violence globally.[16] It might also point the way to future research and partnerships with governments and nongovernmental organizations (NGOs).

Drawing from the current indicator framework of the IAEG-SDG, we have mapped each indicator to a number of attributes relevant to violence prevention. As this is a preliminary analysis and the indicator framework is still in development, further refinement will be necessary. We also accept that creating community-level indicators will depend on data that one captures at a different level from national aggregate data. One can capture data from a variety of levels of organization and from surveys, incidents, encounters, or transactions. Organization of these sources can occur at many levels of aggregation — for example, the number of liquor outlets in a community versus those in a region or country. Community-level indicators may not be of interest to national reporting systems. In many cases, community-level indicators are outside of major reporting systems and therefore not visible as part of a national surveillance strategy. Hospital encounters at the local level can be very helpful for criminal justice, counseling, and other types of interventions. At this time, emergency visits relating to violence have no connection to criminal justice reporting systems.

We find the examination of indicators that work at multiple levels of aggregation to be useful to this review, as is the characterization of indicators by type. We derive the indicator by type category from the health equity work by the California-based Prevention Institute,[17] a VPA partner and leader in community-level interventions for violence prevention. In addition, a "status" attribute identifies whether the indicator is status of a population, an indication of infrastructure or service, or an appraisal of the social environment.

A review of the table, as we shall see, reveals interesting findings. First, there is agreement within the IAEG-SDG on a "homicide" metric, but there is still disagreement on a "violent conflict deaths" indicator. The latter indicator is a significant marker for any effort to manage and reduce violence globally. We cannot know the true intensity of armed conflict and thus the global burden of violence if we exclude conflict mortality from the SDG framework; and to include this, we need a shared understanding of how to measure conflict-related deaths.[18]

Second, the majority of the selected indicators register the incidence and prevalence of some form of victimization and harassment. Many of the indicators will help establish a baseline for the targets and thus track the longer term. These are essential indicators for characterizing the global scope of violence.

We have noted that there is no specific indicator for violence during pregnancy, a particularly vulnerable time for the health of mothers and children. A lifespan approach that acknowledges the reproductive years beginning in preconception highlights the vulnerabilities as well as opportunities to impact health and well-being. Violence during pregnancy is a major concern for maternal-child health and is a major public health issue. Under 5.2.1, we recommend for consideration an indicator such as "Proportion of ever-partnered women and girls (aged 15–49) subjected to violence during pregnancy".

Third, there are relatively few indicators that reflect structural drivers or compliance with international standards, norms, and legislation. Finally, many indicators that we recommend will be very difficult to source (e.g., victims of human trafficking) but should nevertheless be on our radar if we are to generate a better understanding of the true implications of violence around the world.

Importantly, the IAEG-SDG indicator framework also focuses on the disaggregation of key indicators from the global to regional, subregional, and city levels. The UN, however, is still deliberating on the final shortlist of metrics. It will develop data on the basis of a three-tier approach based primarily on the availability and existence of an established methodology for producing the indicator in question. An informal briefing to the UN shared the following approach for developing the framework globally:

The first important step will be the assessment of the status of the indicators proposed. The indicators will be classified into three

tiers: Tier I: an established methodology exists and data are already widely available ("green"); Tier II: a methodology has been established but for which data are not easily available (yellow"); and Tier III: an internationally agreed methodology has not yet been developed ("grey").[19]

The discussion on SDG indicators is evolving. While we are still at a preliminary level, the framework proposes an ambitious high-level overview and incentive to measure structural drivers, societal norms, the strengthening of protective factors, and the reduction of risks associated with violence. What ultimately may be more important for prevention efforts are indicators at the local level that help provide a comprehensive profile of communities, including their social and economic characteristics (including employment, education, access to healthy and nutritious food, social mobility, and wealth distribution), values, norms, and perceptions. A comprehensive approach to measuring SDG indicators would benefit from the WHO-recommended public health approach to violence prevention. The overarching focus of sustainability necessitates an engagement at all levels of governance to establish truly nurturing and thriving human settlements in viable ecosystems.

About the Authors

Bandy X. Lee M.D., M.Div., is a faculty member of the Law and Psychiatry Division at Yale University and directs the Violence and Health Study Group as well as the Academic Collaborators Project Group for the WHO Violence Prevention Alliance.

Finn Kjaerulf M.Sc., is an economist and program manager at Prevention of Urban Violence Theme, DIGNITY – Danish Institute Against Torture, Denmark. Email: fk@dignityinstitute.dk.

Shannon Turner B.A., B.Sc., M.Sc., Ph.Dc., is a Doctoral Fellow at the University of Victoria, British Columbia Canada, National Co-Chair of Prevention of Violence Canada- Prévention de la violence Canada, Social Innovation Research Lead and Co-Chair of the Global Advisory Circle for Bridge For Health. Email: skturner@live.ca.

Larry Cohen M.S.W., is the Founder and Executive Director of Prevention Institute, a U.S. nonprofit organization dedicated to improving community health and equity by taking action to build resilience and to prevent violence and illness before they occur. Email: larry@preventioninstitute.org.

Peter Donnelly M.D., is President and CEO of Public Health Ontario. He holds Professorships at the University of Toronto, Queens University, and the University of St. Andrews.

Robert Muggah Ph.D., is research director of the Igarapé Institute (Brazil) and the SecDev Foundation (Canada) and a fellow at the University of Oxford and the Graduate Institute of International Studies in Geneva, Switzerland. Email: robert@igarape.org.br.

Rachel Davis M.S.W., is Managing Director at Prevention Institute and Chair of UNITY (Urban Networks to Increase Thriving Youth), a national violence prevention initiative that advances a public health approach to violence in the U.S. Email: Rachel@preventioninstitute.org

Anna Realini is the Manager of the Executive Office at Prevention Institute, a U.S. nonprofit organization dedicated to improving community health and equity by taking action to build resilience and to prevent violence and illness before they occur. Email: anna@Preventioninstitute.org.

Berit Kieselbach M.Sc., is Technical Officer at the World Health Organization Department for Management of Noncommunicable Diseases, Disability, Violence and Injury Prevention. Email: kieselbachb@who.int.

Lori Snyder MacGregor R.N., B.Sc.N., M.Ed., is a Public Health Nurse at the Region of Waterloo Public Health and Emergency Services and Past Co-Chair and current member of Prevention of Violence Canada- Prévention de la violence Canada. Email: lsnyder-macgregor@regionofwaterloo.ca

Irvin Waller Ph.D., is Professor of Criminology, University of Ottawa, Canada, and President of the International Organization for Victim Assistance.

Rebecca Gordon M.P.H., is the Senior Program Advisor for Together for Girls, based in Washington, DC. Prior to joining Together for Girls, she coordinated violence prevention and response in South Sudan and Thailand.

Michele Moloney-Kitts M.S.N., is the Executive Director of Together for Girls and serves as a Senior Advisor to the Executive Director of UNAIDS. Previously, she served as the Assistant Global AIDS Coordinator for the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), and for many years as a health officer for USAID. She began her career as a nurse practitioner and a nurse midwife.

Grace Lee Ed.D., directs the Arts for Social Change Research Group for the Education Studies Program at Yale University, exploring the role of creative exchange across age groups for violence prevention and peace promotion. She is also a psychotherapist, former professor, and author.

James Gilligan M.D., is a Clinical Professor of Psychiatry and an Adjunct Professor of Law at New York University. Previously, he served on the faculty of Harvard Medical School, directing the Institute of Law and Psychiatry, Bridgewater State Hospital for the criminally insane, and Mental Health Services for the Massachusetts prison system.

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Editors' Note

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