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Program/Project Purpose: Exposure to secondhand smoke (SHS) causes many health problems. In China, 740 million non-smokers are exposed to SHS, which leads to approximately 100,000 deaths every year. To systematically assess SHS exposure and perceived health risks of tobacco use, China CDC collaborated with five cities, including Chengdu, Chongqing, Wuhan, Xiamen and Xi'an, to launch the Tobacco Questions for Surveys (TQS) in 2015.

Structure/Method/Design: The TQS was a subset of key questions from the Global Adult Tobacco Survey (GATS). The target population was non-institutionalized adult residents age 15 and above in urban areas. Multi-stage cluster sampling was applied to select 2,500 individuals from each city. SAS and R were used to obtain point estimates with standard errors accounting for the complex sample design features. SHS exposure was defined as noticing someone smoking in the past 30 days in specific venues. Perceived health risks of tobacco use included whether respondents were aware that smoking or SHS could cause specific diseases.

Outcome & Evaluation: The SHS exposure prevalence was higher than 40% in indoor workplaces (the highest is 53.0%) and higher than 35% at homes across five cities. The SHS exposure prevalence in healthcare facilities was around 20% across five cities. Among public venues surveyed, the SHS exposure in bars/night clubs was the highest (all above 90%), followed by that in restaurants (63.8% to 73.3%). Public transportation had the lowest SHS exposure (7.7% to 12.2%).

While over 85% of adults in all cities were aware that smoking could cause lung cancer, only around 40% believed smoking could cause stroke and heart attack. The perception of erectile dysfunction was the lowest. The awareness of SHS exposure causing lung cancer in adults was the highest (all above 79%), followed by lung diseases in children (71.5% to 81.2%). Smokers were more aware of the harmful effects of smoking and SHS exposure than nonsmokers. As education level increased, the perceived health risks of all diseases increased in all cities.

Going Forward: Tailored intervention is needed to reduce SHS exposure, and comprehensive tobacco control policies are needed to protect vulnerable groups. It's important to implement health education on the adverse effects of smoking and SHS exposure, emphasizing health risks other than lung diseases.

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Attacks on Health Facilities as an Indicator of the Human Cost of Conflict in Syria

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Background: The primary indicator of the human cost of conflict has consistently been the number of armed forces and civilian deaths. Although it has been the best proxy available to measure the frequency and intensity of violence, the mortality rate is difficult to enumerate during or even after a conflict. In the case of the conflict in Syria, estimated mortality rates range from 250,000 to 470,000, highlighting the difficulty in obtaining accurate death tolls in a violent context.

In contemporary conflicts, civilian infrastructure is increasingly targeted for destruction. As violations of international humanitarian law, attacks on health-care facilities have immeasurable short and long-term repercussions on communities. In Syria, there is growing evidence that government forces have systematically destroyed its health system by attacks on hospitals, health workers and patients.

Methods: The recent surge of technology and its applications has provided an unprecedented ability for human rights organizations to document attacks on health-care infrastructure. Our study utilizes open-source data documenting health-care facilities attacked per month in Syria, and compares that to the trends in the civilian casualty rate. We identify various approaches for identifying health-care infrastructure damage and note the limitations in methods for enumerating civilian casualties.

Findings: Our study finds that while the trends in civilian casualties and attacks on health-care facilities show similar patterns in the early stages of the Syrian conflict, the civilian casualty rate stabilized over time whilst the number of attacks on health-care infrastructure increased. We also highlight the consistency between the rate of attack on health-care facilities and other humanitarian indicators. Our findings reveal that only using civilian casualty rates to measure the level of violence would belie the true cost of war, particularly when the collapse of structures used to enumerate casualties may compromise the accuracy of mortality indicators.

Interpretation: Attacks on health-care infrastructure are a valuable indicator to include in measuring the intensity of an armed conflict. In the case of Syria, this information could provide a more nuanced understanding of the consequences of the destruction of health-care infrastructure, and could expose the nature of indirect deaths in conflict.

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Constructing and Governing Partnerships for Capacity Building in Implementation Science

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Program/Project Purpose: Partnership approaches are critical to strengthen institutional and leadership capacity in low- and middle-income countries — capacities to both conduct Implementation Research and Delivery Science (IRDS) and to utilize IRDS evidence to improve health outcomes. Institutional leadership and capacity development for IRDS is needed at multiple levels and demands novel approaches to generate high-quality evidence; to make findings accessible and relevant to real world problems; and to influence programs and policies. USAID's Translating Research into Action (TRAction) project has supported IRDS partnerships in several countries, working to build IRDS capacity and improve health. IRDS depends on partnerships that include research, implementation and policy institutions.