Rapid and Collaborative Population Health Assessment for People Experiencing Homelessness in Toronto: The CARE Program

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THE INNOVATION

People experiencing homelessness (PEH) face an elevated burden of chronic and communicable disease, mental health and substance use disorders, and unmet health and support needs.[1,2] Health and housing providers lack real-time data to drive and enhance services. We established the Community Assessment and Risk Evaluation (CARE) program, a rapid risk assessment and clinical population medicine intervention[3] to respond to these challenges, characterize health needs, and mitigate risks among PEH.

WHO & WHERE

Inner City Health Associates (ICHA) is the largest health service provider in Toronto shelters, serving over 11,000 PEH across 60 sites, including 8 hotels repurposed as emergency shelters during the first waves of the COVID-19 pandemic. For over 15 years, ICHA has developed and led partnerships to deliver interdisciplinary care for PEH in Toronto. Since 2019, ICHA's Population Health Service has delivered health protection, health promotion, and population health assessment initiatives for PEH.

HOW

CARE is a population health assessment initiative to rapidly assess risk and deliver targeted supports to high-risk clients experiencing homelessness through a collaboration of population health professionals, physicians, frontline staff, and community partners. Initially developed in response to the COVID-19 pandemic, CARE has since evolved into a system for the general assessment of community health needs among PEH.

Conflicts of interest: authors report none.

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Shelter staff work with population health professionals to stratify residents according to their health and support needs using the CARE tool. The 5-item open-access tool gathers data on immunization status, general health risk, support needs, substance use, and housing-specific support needs (**Supplemental Appendix**). Additional content concerning cognitive, behavioral, and general health status are in development. For non–health care staff who know shelter residents well, stratification takes approximately 30 seconds per client.[4] Automated and customized CARE Dashboards were developed using the Django Web Framework (**www.djangoproject.com**) to provide shelter and primary care colleagues with secure, real-time information on resident needs, and comparisons with system-wide data. Repeat assessment for most measures shows acceptable internal consistency (Cronbach's α), though measures are expected to change over time (**Supplemental Table**).

Under the custodianship of each shelter, ICHA manages CARE data and works with shelter personnel and clinicians to develop analyses that support health and social services, system planning, and resource allocation at the macro, meso, and micro levels. For example, at the macro level across multiple shelters, CARE Dashboards are able to drive system planning by highlighting the needs of PEH, and especially the need for expanded housing supports for PEH with unstable substance use behaviors and long-term care needs. At the meso level in individual shelter programs, comparison of CARE data with clinical case lists can help target health care and case management efforts to people with the greatest risk and support needs. During COVID-19 outbreaks, CARE data allowed a recovery facility to cohort clients at lower risk and ensure that higher risk clients had spaces that could best facilitate physical distancing. At the micro level serving individual patients, we used CARE data to bring COVID-19 interventions such as immunization and testing to specific clients at elevated risk of severe disease. Data also directed efforts to identify long-term housing based on residential support needs.

LEARNING

CARE is an innovation developed in the context of the COVID-19 pandemic that has evolved into a durable population health assessment program to better serve the health, well-being, and ultimately housing needs of PEH in Toronto. CARE demonstrates how collaborations of health and social service personnel can deliver rapid health assessments, and support enhanced care and protections for vulnerable populations. CARE illustrates the need for expanded services for PEH with complex health and substance use needs.

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Key words: homelessness; health equity; primary care; health care; population health; population health assessment; substance use; risk evaluation

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Supplemental materials, including affiliations, acknowledgments and references