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A framework for improving diabetes care in humanitarian emergencies

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More than 100 million people were forcibly displaced from their homes due to conflict and violence in 2022, a historic number that is expected to increase this year.¹ Additionally, a mean of approximately 200 million people are affected by natural disasters each year.² Low-income and middle-income countries (LMICs) not only host more than 80% of people who have been forcibly displaced but are also home to most people with diabetes globally.³ Most crises are protracted, with the mean duration of displacement ranging from 10 years to 26 years, and humanitarian organisations provide long-term primary care to local and displaced populations.⁴ However, diabetes care is inadequate and largely neglected in humanitarian settings. In 2019, the Boston Declaration was signed by more than 40 organisations, emphasising this crucial gap and setting a shared agenda to improve diabetes care in humanitarian settings over the following 3 years.⁵

Subsequently, the International Alliance for Diabetes Action (IADA), a partnership of more than 60 organisations from different sectors, was established to work towards the goals outlined in the declaration. Members of the alliance have been connecting, sharing, and collaborating through a wide variety of events and activities. For example, IADA members contributed to the development of the landmark resolution on diabetes (WHA74.4), which called for guidance for uninterrupted treatment of people with diabetes in humanitarian emergencies and was adopted at the 74th World Health Assembly on May 27, 2021.⁶ Member agencies have evaluated insulin thermostability, which led to a positive scientific review by the European Medicines Agency recommending expanded storage conditions of insulin outside refrigeration.⁷ The first interagency study on diabetes care in humanitarian settings was published in 2022, emphasising the paucity of diabetes data in these settings.⁸ Work is ongoing to improve affordability of glucose monitoring and laboratory testing and to reduce the cost and complexity of treatment for people living in low-resource and humanitarian settings. Member organisations have also developed an open-access diabetes eLearning platform and insulin-switching guide for the crisis in Ukraine and are supporting

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SK and KJ are board members of the International Alliance for Diabetes Action. KJ received consulting fees from the International Alliance for Diabetes Action. Signatories on behalf of the International Alliance for Diabetes Action are listed in the appendix.

the development of WHO guidelines for type 1 diabetes management in humanitarian settings.⁹

Since the Boston Declaration was signed, the COVID-19 pandemic was declared, which led to the disruption of essential services, especially affecting people with non-communicable diseases (NCDs).¹⁰ Increasing extreme weather events and worsening water and food insecurity globally brings additional risk for people with diabetes. Access to diabetes care in humanitarian settings faces substantial health equity challenges—the commendable response for people with NCDs in Ukraine has not been matched in other conflict areas.

IADA hosted a symposium in Kraków, Poland (Oct 20–21, 2022) to chart ongoing trends and emerging challenges in providing diabetes care in humanitarian settings, identify opportunities to improve care, review the Boston Declaration, and define objectives and collaborative actions for the coming years. During the symposium, seven key challenges and unmet needs were identified: coordination, policy advocacy, access to insulin and diagnostics, access to care, ongoing scarcity of data, pandemic and climate resilience, and financing.

First, coordination of health systems strengthening and emergency preparedness and response plan functions is needed between ministries of health, humanitarian agencies, and other sectors. Second, initiatives and tools are needed to ensure that people with diabetes are prioritised as a vulnerable group in humanitarian emergency plans and enabled to navigate health systems. Efforts to include input from people with diabetes in policy (and care) development need to dramatically improve. Third, barriers to medication and diagnostic access are specific to the setting but can include inadequate buffer stocks; insufficient data for drug quantification and procurement; cost of medicines; little access to insulin, injection devices, and glucose monitoring; diverse medication labelling and need for translation; and non-inclusion of refugees in Universal Health Coverage. Fourth, improving access to care requires a setting-specific approach, including improved communication with and access to clinicians, capacity strengthening of primary care providers, task shifting, agreement to extend prescription duration in humanitarian crises, communication to clinicians about policy changes, and denouncing the increasing deliberate attacks on health-care facilities and supply chains. Fifth, data are needed to understand disease burden, guide procurement, monitor quality of care and progress, track cost effectiveness, and enable advocacy. Emergency preparedness and response monitoring data need to be integrated with routine health systems data. Indicators for monitoring diabetes services in emergencies need to be agreed on. Sixth, climate change and pandemics create challenges for continuity of care and increase the overall risk of negative health outcomes for people with diabetes. Finally, NCDs are substantially underfunded in humanitarian settings. Long-term financing for NCDs often depends on development aid, whereas humanitarian financing relies on flash appeals towards donors with a short-term focus. There is no clear mechanism for transitioning from humanitarian to longer-term development financing.

The events of the past few years, especially lessons learned from maintaining continuity of diabetes care during the COVID-19 pandemic and the specific challenges of insulin access in Ukraine and Tigray, Ethiopia, have emphasised the need for access to modern diabetes

treatments and diagnostics, new operational guidance, advocacy initiatives, and indicators for monitoring diabetes care in emergencies. To adapt to the changing global landscape and emerging challenges and address the current needs of people with diabetes in humanitarian settings, new objectives, priorities, and collaborative actions were defined for 2023–25 at the Kraków symposium and endorsed by IADA members (panel).

The global community should continue to build on the gains of the past few years and ensure that the promise of Universal Health Coverage extends to people with diabetes in crisis-affected settings. This progress will require improved collaboration between health systems and humanitarian agencies, in partnership with people with diabetes, to ensure that diabetes care is included in humanitarian preparedness and response plans. The climate crisis, threat of future pandemics, and growing health inequities make inclusion of diabetes care a pressing imperative.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Panel:**Priority agenda for addressing diabetes in humanitarian crises****Advocacy, financing, and policy**

- Support WHO and normative agencies to produce context-specific guidance to member states on policy making to integrate diabetes and other non-communicable diseases (NCDs) into preparedness plans and humanitarian responses.
- Work with WHO on the Global Diabetes Compact to ensure that the goals are achieved through extending global diabetes targets to humanitarian settings and getting them into national plans.
- Carry out investment analyses reviewing existing evidence to identify where and how investment cases need to be made, showing areas without investment in diabetes and monetising the cost of inaction to support dialogue with donors.
- Advocacy for the diabetes response to include diet or attention to food and to include community and civil society engagement in care design and delivery.
- Advocate towards long-term funders for the continuation of emergency-phase NCD services, ensuring integration into primary health care, using programme data and patient testimonies.

Universal access to insulin, other essential medicines, and diagnostics for glycaemia and blood pressure

- Advocate for the routine inclusion of essential medications for diabetes and hypertension in humanitarian preparedness and response plans, with insulin, monitoring devices or supplies, oral hypoglycaemics and anti-hypertensive medications as an immediate priority.
- Support the sharing of transparent pricing data for the diabetes bundle, insulin delivery devices, and monitoring tools across humanitarian agencies and from selected countries with the goal of setting a target price per patient per year for type 1 and type 2 diabetes care, reflecting cost of production data. Broaden the offering in preferential pricing schemes for low-income and middle-income countries (LMICs) and humanitarian actors to include insulin in vials, cartridges, and pens.
- Support creation and dissemination of storage guidance for insulin based on updated evidence on thermostability of insulin.
- Improve the availability and suitability of tools for diagnosis, self-monitoring, and clinical monitoring of diabetes, and evaluate the role and appropriateness of new diagnostics and continuous glucose monitoring in humanitarian settings.

- Explore the role and cost-effectiveness of modern medications (ie, SGLT2 inhibitors and GLP-1 receptor agonists) in the management of diabetes in humanitarian settings, including their role as insulin-sparing agents. Explore access pathways for generic diabetes medicines and biosimilar production of new diabetes medicines.
- Explore the relevance of diabetes medications that are being developed to simplify and improve diabetes care in humanitarian settings and the opportunities for early market entry in LMICs and humanitarian settings.

Establish a unified set of clinical and operational guidelines

- Develop and test evidence-based clinical guidance and educational materials on diabetes care and prevention in humanitarian crises, including simple, appropriate, safe, and effective algorithms, diagnostic cutoffs, and treatment targets in different emergency phases.
- Document models of care that exist and, if required, conduct operational research to develop and test different cost-effective models of care that are centred on empowering people with diabetes and other NCDs, taking local health systems and food supplies into consideration.
- Support innovation around treatment, monitoring, and therapeutic patient education, including low-cost medical delivery and diagnostic devices and patient-held medical records.
- Contribute to WHO operational guidance and training on NCDs in humanitarian settings with meaningful engagement of people with diabetes, including rapid NCD service-provision assessments and modelling tools for rapid NCD needs assessments; task-sharing; group, peer, and self-management support; and prevention or health promotion.

Improved data and research

- Support and enable national (and WHO) work on NCD integration in health information systems and facility-based electronic medical records. Collaborate with key stakeholders to develop standardised indicators and data collection tools for NCD care in emergencies, focusing on situational or rapid needs assessments, health system assessment and service delivery, and facility-based indicators for service delivery and quality of care.
- Develop a data-driven simulation model that can be used to predict resource needs and prioritise response options under different scenarios.
- Expand the diversity of studies of diabetes in humanitarian crises across regions, crisis types, and crisis stages, including epidemiological studies to understand geographical variations and prioritise subpopulations, implementation or evaluation studies to identify and test new models of care, and qualitative studies to improve understanding of patient experience, burden, and priorities.

- Conduct a longitudinal study to look at clinical (and potentially cost) effects of care interruption on a cohort of people with diabetes.