1. Record Nr. UNINA9910337464603321 Autore Ramadurai Krish W Titolo Reimagining Innovation in Humanitarian Medicine: Engineering Care to Improve Health and Welfare / / by Krish W. Ramadurai, Sujata K. Bhatia Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2019 **ISBN** 3-030-03285-X Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (112 pages) Collana SpringerBriefs in Bioengineering, , 2193-097X Disciplina 362.1 Soggetti Biomedical engineering Health promotion Development economics Poverty Biomedical Engineering/Biotechnology Biomedical Engineering and Bioengineering Health Promotion and Disease Prevention **Development Economics Development Aid** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia

Nota di contenuto

The Humanitarian Relief Paradigm -- Current Humanitarian Crises:
Defining the Humanitarian Aid Complex -- Medical Treatment in
Unconventional Settings: Meeting the Needs of Conflict Victims -Health Is Wealth: Avoiding Chronic Illness as a Perpetuity -- The
Humanitarian Paradox: What Happens When We Leave? -- Disparities of
Healthcare Services in Conflict Areas -- Humanitarian Innovation and
Frugal Engineering: A Social Perspective -- Humanitarian Innovation
and Medicine: Defining the Innovation Process -- Adapting Innovation
Sub-Types in Humanitarian Medicine: Turning the Unconventional into
Conventional -- Frugal Innovation Sub-Types in Health and Medicine
-- Contextualized Adaptations -- Bottom-Up -- Lean Tools and
Techniques -- Opportunistic Solutions -- Disruptive Innovation: The
Real Meaning -- Open and Reverse Innovation + Crowdsourcing and
Wikicapital: The Future of Creative Problem-Solving -- Frugal Medical

Technologies and Adaptive Solutions: Field-Based Applications -Enhancing the Interventional Capacity of Humanitarian Practitioners,
Community Health Workers, and Crisis-Stricken Communities -Scaling Adaptive Solutions in the Humanitarian Field -- Surgical Care
and Prosthetics -- Neonatal and Maternal Conditions -- Infectious
Diseases -- Disruptive Technologies and Innovations in Aid and
Disaster Relief: An Integrative Approach -- Data Collection and Crisis
Management: Crowdsourced Crisis Mapping -- Robotics and Wearable
Technology -- mHealth, Telehealth, and Blockchain -- Humanitarian
Innovation in the Modern Era: Ending Human Suffering -- Reworking
Knowledge Transfer in the Humanitarian Ecosystem: Empowering
Conflict Victim and Refugee Innovation -- The Future of Humanitarian
Medicine and Creative Problem-Solving.

## Sommario/riassunto

Throughout history, humanity has been plagued by a myriad of humanitarian crises that seemingly take the form of perpetual human suffering. Today, approximately 125,000,000 people require humanitarian assistance as the result of famine, war, geopolitical conflict, and natural disasters. A core component of this suffering is afflictions related to human health, where disturbances strain or overwhelm the existing healthcare infrastructure to create the conditions for an increase in morbidities and co-morbidities. One of the more startling elements is the loss of life to preventable medical conditions that were not properly treated or even diagnosed in the field, and is often due to the limited interventional capacity that medical teams and humanitarian practitioners have in these scenarios. These individuals are often hindered by medical equipment deficiencies or devices not meant to function in austere conditions. The development of highly versatile, feasible, and cost-effective medical devices and technologies that can be deployed in the field is essential to enhancing medical care in unconventional settings. In this book we examine the nature of the creative problem-solving paradigm, and dissect the intersection of frugal, disruptive, open, and reverse innovation processes in advancing humanitarian medicine. Specifically, we examine the feasible deployment of these devices and technologies in unconventional environments not only by humanitarian aid and disaster relief agencies, but also by crisis-affected communities themselves. The challenge is complex, but the financial support and technical development of innovative solutions for the delivery of humanitarian aid is a process in which everyone is a stakeholder.