16 Health System's Resilience in Response to Economic Sanctions: An Intersectionality-Informed Perspective

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Key Messages

1. Economic sanctions, as a pressing international policy tool, have an urgent and profound impact on the health systems of targeted countries. Beyond economic and political consequences, they severely limit access to essential medicines, degrade health care infrastructure, and disproportionately harm vulnerable populations, such as those affected by the intersection of poverty and disabilities or marginalized communities requiring long-term, costly care.
2. Building a resilient health system under economic sanctions requires an intersectionality-informed approach and international collaboration. Recognizing the complex interplay of social identities, such as disability, immigration status, and socioeconomic background, is crucial to address the specific needs of these marginalized groups. Key strategies to minimize the consequences of sanctions include strengthening governance, ensuring sustained financing, and conducting ongoing assessments.
3. International partnerships have a crucial role in mitigating the impact of sanctions. By advocating for ethical and transparent sanction policies and promoting humanitarian carve-outs, these collaborations can help ensure that health systems survive and can support the essential needs of all individuals, especially those facing compounded vulnerabilities.

"Sanctions is something more tremendous than war."
—Thomas Woodrow Wilson

Introduction

While resilience is a core notion or "buzzword" (in Schwarz's words, 2018) in several areas of technoscience and socio-ecological systems (Rutter 2023; Schwarz 2018), its relevance and application to health systems are new (Haldane et al. 2021; Kruk et al. 2015; Nuzzo et al. 2019). A major part of this growing body of knowledge was specific to the capacities of the systems to prepare for, respond to, and recover from the challenges of global public health and security emergencies (e.g., Ebola, SARS, COVID-19), while sustaining core functions, providing the ongoing and acute care needs of their communities at the different levels of health care, and ensuring consistency in health improvement and security of all people (Haldane et al. 2021).

From an intersectionality-informed perspective, this chapter looks in detail at the resilience of the existing health systems in the targeted countries, mainly from the Global South, in the face of economic sanctions. Hence the aim of this chapter is to delineate how these systems were able to effectively and timely manage the vulnerability and risks across and beyond the health system components, namely personnel, organization, technoscience, and regulation (Field 1982; Twaddle 2004).

To meet this aim, we will first define economic sanctions and specify their different types. We then discuss the major impacts of these sanctions on health systems using an array of examples from the sanctioned countries around the world. After that, the resilience of the health systems to combat economic sanctions will be discussed. Finally, we briefly accentuate the intersectionality approach to vulnerable populations in the economically sanctioned context and the key contributions, insights, and implications of this approach for building and protecting resilient health care systems.

Background and Categorization of Economic Sanctions

Sanctions have a long history and refer to the mechanism through which one sanctioning agent (*the sender* or *the sanctioner*) exercises punitive measures against another (*the target* or *the sanctionee*) for failing to implement some desired action (Joshi & Mahmud 2018). The use of sanctions as a tool of international policy started after World War I with a proclamation by the 28th President of the United States, Thomas Woodrow Wilson, in 1919 (Mulder, 2022).

The aim of sanctions is hence to influence and modify certain behaviors of a country or government by imposing different restrictions to punish them for violating international law and human rights, engaging in structural–institutional terrorism, or pursuing policies that threaten global peace and security. Sanctions are generally designed to pressure the target to change their actions or policies without resorting to military force (Portela 2018). Here are some main features that distinguish sanctions from war and other forms of military conflicts:

1. *Nonviolent:* Sanctions are generally designed to be a nonviolent means of conflict resolution aimed at avoiding manifest military confrontations and clashes.

2. *Limited in scope and scale:* Sanctions are often designed to be targeted and limited in scope, focusing on specific actions or activities rather than broad-scale interventions.

3. *Temporary:* Sanctions are often imposed for a limited period of time or with the goal of achieving specific objectives rather than as a permanent policy.

4. *Reversible:* Sanctions can be reversed or lifted if the targeted states or individuals modify their behaviors consistent with the demands of the sanctioning agents.

5. *Subject to "the blame game":* The sanctionees may exploit their status to suppress opponents by claiming to be targeted by foreign adversaries for political gain.

According to the Global Sanctions Data Base (Felbermayr et al. 2020), the use of sanctions has increased over the last three decades. They are also becoming more diverse, and numerous countries and institutions employ sanctions as a tool. Of course, among all, sanctions imposed by the EU, the UN, and the US are more frequent and more extensive.

Table 16.1
List of the existing sanctioned countries/ *the targets* (OFAC, 2023)

Type of sanction	Country (the target)
Comprehensive	Cuba, Iran, North Korea, Syria
Targeted	Belarus, Congo, Iraq, Libya, Nicaragua, Russia/Ukraine, Somalia, Sudan, Venezuela, Zimbabwe
Prohibition of the transfer of military or space technology	Afghanistan, Belarus, Burma (Myanmar), China, Congo, Cuba, Cyprus, Eritrea, Fiji, Haiti, Iran, Iraq, Ivory Coast, Lebanon, Liberia, Libya, North Korea, Somalia, Sri Lanka, Sudan, Syria, Venezuela, Vietnam, Yemen, Zimbabwe

African countries have been the most frequent targets of sanctions over the last decades; however, as table 16.1 shows, many other countries are currently the targets of different types of sanctions (Sajadi et al. 2023).

Sanctions may take different forms in pursuing the sanctioner's goals. Moreover, they can be categorized in terms of degree of discrimination (scale), nature, and agent of the sanction (who imposed). These categories are as follows:

Scale:

• *Comprehensive sanctions:* These are measures that aim to deny a target state access to all international financial, trade, and service interactions.

• *Relatively non-discriminating measures:* These affect core economic sectors, such as financial, oil, and transportation (e.g., aviation and shipping) sectors.

• *Moderately discriminating measures:* These include sanctions targeting key export commodities of the targeted economy (excepting oil), such as diamonds, timber, and charcoal; or individual sanctions targeting very large companies that affect entire sectors of an economy.

• *Relatively discriminating measures:* These target specific sectors of government (or nongovernmental targets), such as arms embargoes, diplomatic sanctions, nuclear dual-use items, and luxury goods.

• *Most targeted measures:* These are designed to target specific persons, groups, and entities responsible for objectionable policies or behaviors. Mostly, such sanctions comprise both an obligation to freeze all funds and economic resources of the targets and a prohibition on making funds or economic resources available directly or indirectly to or for the benefit of the targeted persons and entities. Additionally, it can be a sort of travel ban on a specific entity, person, or group of persons (Portela 2018).

Nature:

• *Arms embargoes:* These are imposed to stop the flow of arms and military equipment to conflict areas or to regimes that are likely to use them for internal repression or aggression against a foreign state (Austin 2005).

• *Restrictions on admission (visa or travel ban):* These are targeted sanctions, where an individual or group of individuals are banned from entry into, or transit through, the territories of the state or group of states that is/are imposing the ban.

• *Economic sanctions:* These sanctions are "coordinated restrictions on trade and financial transactions intended to impair economic life within a given territory" (Davidsson 2002).

• *Diplomatic sanctions:* These involve limiting diplomatic ties between countries, restricting the movement of diplomats, or imposing travel restrictions on government officials.

• *Cultural and sporting sanctions:* These involve prohibiting the targeted country from participating in international cultural, artistic, or sporting events to further isolate them diplomatically and economically.

• *Environmental sanctions:* These prevent a country from accessing international support mechanisms for addressing environmental concerns such as climate change.

Agent of the sanction (who imposed):

• *Unilateral sanctions:* These are usually trade and other economic embargoes that are imposed independently by one country on another. Their major purpose is the advancement of sender's foreign policy on the target (Dowling & Popiel 2002).

• *Multilateral sanctions:* These take place when *the sanctioner* draws on other sanctioning agents or allies to collectively sanction the target (Bapat & Morgan 2009; Joshi & Mahmud 2018). As per the existing literature, multilateral sanctions often involve significant coordination and implementation challenges, as they require aligning the interests and actions of sanctioning parties with varying objectives and asymmetric leverage over the target (Heine-Ellison 2001; Joshi & Mahmud 2018).

Effectiveness of sanctions is a matter of debate among scholars, practitioners, and policymakers (Drezner 2024; Peksen 2019). Some, mostly the senders, argue that sanctions are a useful alternative to military interventions, capable of influencing behavior without causing significant loss of life. In this view, sanctions are aimed at ensuring global peace and security and improving freedom and human rights; Others contend that sanctions are ineffective as they can negatively affect external stakeholders and legitimize the targeted regimes, or that they may even exacerbate conflict. Studies have shown that sanctions hardly achieve the desired results (Wallensteen 1968). The success rate of sanctions is about 30 percent on average. However, they can considerably impact social and economic indices, and violate fundamental human rights (Sajadi et al. 2023).

Impacts of Economic Sanction

At first glance, it appears that sanctions only have economic and political consequences; however, they undoubtedly have far more extensive impacts on broader social aspects of the target including public health. In general, the sanctions can create problematic conditions for health systems globally as available resources are constrained or shrink and services are overburdened, often leaving the vulnerable at particular risk (Thomas et al. 2013).

Several studies have investigated the impacts of sanctions. As scholars reported, low availability combined with public economic problems reduce public access to health services in the sanctioned settings. Lack of access to health services or low-quality health services would degrade health systems, limiting efforts to treat even common illnesses and leading to further deaths caused by health problems. For instance, infant mortality rates increased sharply during

the 1990s in Iraq, rising from 47 deaths per 1,000 live births in 1990 to 108 deaths per 1,000 live births in 1995 (Dobson 2003). Venezuela's health system also faced numerous challenges due to sanctions, including a shortage of medicines and medical equipment and increasing mortality rates (Fraser 2017). Similarly, North Korea experienced a rise in severe malnutrition and food insecurity among children under five years of age caused by the sanctions (UNICEF 2020). Sanctions also disrupted cancer care by restricting access to expensive treatments such as radiotherapy (Ameri et al. 2018)

As mentioned above, sanctions negatively affect a population's health by degrading the system and interrupting the health system functions. The most tangible impact of sanctions, directly affecting the *service delivery arrangement* of the health system, is the reduced availability of health services and goods, resulting in shortages of vaccines, medicines, equipment, and other medical and public health products. As Ali (2004) reported, for instance, sanctions in the city of Mosul in Iraq affected the availability of hepatitis B vaccine for children, which in turn resulted in more occurrences of viral hepatitis B cases among children. Kheirandish et al. stated market availability of thirteen of twenty-six drugs was significantly reduced after imposition of the sanctions against Iran. They highlighted that sanctions have had a negative effect on drugs accessibility, particularly those that depended on the import of their raw material or finished products (Kheirandish et al. 2018). Likewise, Cuba faced troubles in procuring medical supplies and equipment, resulting in shortages and reduced access to medical care (Garfield & Santana 1997).

Sanctions increase the likelihood of receiving low-quality treatments, medicines or medical devices, and law adherence (Asadi-Pooya et al. 2016; Deilamizade & Esmizade 2015; Kokabisaghi 2018), mainly due to high costs (issue of unaffordability). They also affect the availability of health workers (Abdoli 2020; Younis & Aswad 2018) and the number and quality of health facilities and infrastructure throughout the country (Garfield & Santana 1997; Popal 2000; Shahabi et al. 2020). As Younis and Aswad (2018) observed, sanctions in Iraq have had a huge impact on the availability of psychiatric health workers and training of psychiatrists, as well as the quantity and quality of mental hospitals and medications. Likewise, years of conflict and sanctions in Libya have resulted in declining health care access so that many primary health care centers remaining closed in 2021. In some areas, up to 90 percent of PHC centers were shut down, while one-third of all health facilities in the south and east of the country were not operational (Pintor, Suhrcke, & Hamelmann 2023).

The *financing arrangement* of the health systems is influenced negatively by the sanctions, particularly if the health resources depend on out-of-pocket payments rather than prepayments. The hardships caused by sanctions might reduce the financial resources available to deal with public health issues (Cho2019; Kokabisaghi 2018; Peksen 2011). The lowered resources caused by sanctions inevitably led to "allocation decisions" that negatively and indirectly influenced health outcomes in the sanctionees. The sanctions significantly led governments to decrease health expenditures. Sanctions also cause significant financial hardships to access health care services (Akbarialiabad, Rastegar, & Bastani 2021; Asadi-Pooya et al. 2019; Setayesh & Mackey 2016). Sanctions gradually increase constraints on the health system and create troubles in financing processes. This limitation and the low efficiency of the health system caused severe problems.

It is noteworthy that sanctions may not have short-term effects on the health status of people in the target as it depends heavily on the preparedness and resilience of the health

system. For instance, Russia's health system has remained relatively stable despite the imposition of sanctions due to the country's high level of self-sufficiency in producing essential medicines and medical equipment (Dyer 2022).

As per the existing literature, moreover, the sanctions could negatively affect training and research activities in health and medical sciences due to declines in publications, international collaboration, and research funding (Akbarialiabad, Rastegar, & Bastani 2021; Bezuidenhout et al. 2019; Kokabisaghi et al. 2019; Yoon et al. 2019). These effects overshadow the academic capacity of the sanctionees in the long run. However, sanctions might motivate scholars doing research under sanctions to become more self-reliant (Almasi, Jamali Mahmouie, & Yousefi 2016). Despite the shock and the costs of sanctions, some researchers, like James K. Galbraith, go beyond this by claiming how the sanctions imposed on the Russian economy have evidently been in the nature of a 'gift' (Galbraith, 2025).

Moreover, sanctions indirectly affect the health system, which is considered a more severe threat to the health sector than direct effects. They affect the *public health status,* notably the economic dimension. The harsh effects of sanctions on economic, political, social, and environmental circumstances were reported by many scholars (Cho 2019; Hejazi & Emamgholipour 2022; Kim 2019; Kokabisaghi 2018; Peksen 2011; Sen, Al-Faisal, & Al-Saleh 2013). The sanctions may cause a fall of a country's revenues, devaluation of national currency, and increase in inflation and unemployment. Sanctions might affect autocratic governments' decisions to redistribute their public goods as they confront a sanction-induced scarcity of resources. These all result in deterioration of people's overall welfare and reduced ability to access the necessities of a standard life such as nutritious food, health care, and education as human rights. For instance, sanctions imposed on Syria have negatively affected the country's economy and people's health. The sanctions have caused the devaluation of the Syrian currency, resulting in higher prices for essential items—for example, food and medicine—while decreasing the purchasing power of incomes. Power supply disruptions have also occurred, which have impacted the cold vaccine chain and interrupted the vaccination program (Sen, Al-Faisal, & Al-Saleh 2013).

Sanctions may deteriorate democracy, transparency, and press freedom in the target. They might lead to political instability and closure by destabilizing the target leadership and inciting more violence. In Haiti, for instance, sanctions resulted in enormous social dislocation, reducing childcare and feeding, increasing women's economic burden, and encouraging the breakdown of family structures (Gibbons & Garfield 1999). In Iraq, unsafe drinking water, polluted environment, poor sewage system, and reductions in sugar availability due to sanctions are examples of negative effects of sanctions on environment; all threatened public health (Popal 2000).

More importantly, the innocent citizens are certainly the primary victims of the sanctions, and they suffer disproportionately from the multidimensional costs of sanctions. Negative effects of the sanctions are obviously more severe for those in the marginalized and vulnerable groups (Espinosa & Mirinaviciute 2019; Kokabisaghi 2018; Peksen 2011; Popal 2000; Sen, Al-Faisal, & AlSaleh 2013).

Intersectionality-Informed Approach to the Vulnerable Populations

As discussed earlier, economic sanctions can have far-reaching consequences on the population health and functioning of health care systems. These consequences often disproportion-

ately impact vulnerable populations, amplifying existing health disparities and exacerbating the challenges faced by already fragile systems. To address this issue effectively, a systemic approach is necessary—one that emphasizes the need for evidence-informed interventions, intersectional perspectives, and ongoing assessment.

Economic sanctions have complex and multidimensional effects on health care systems that encompass multiple levels of deprivation. While the intention behind sanctions is often to target specific entities or individuals, the collateral damage on health infrastructure, medical supplies, and access to care is substantial (Massoumi & Koduri 2015).

Addressing the multifaceted needs of populations affected by sanctions demands an intersectionality-informed approach. It is crucial to recognize that the impact of sanctions is not uniform, with certain groups of people suffering disproportionately. These may include marginalized populations, children, women, the elderly, and individuals with preexisting and long-term health conditions. This approach acknowledges the interconnectedness of various social identities, "the isms" and geographies such as gender, ethnicity, race, socioeconomic status, sexual orientation, immigration status, (dis)ability, and the West vs. East and the North vs. South (McGibbon & McPharsen, 2011), and how they intersect to shape individuals' experiences and vulnerabilities. By incorporating intersectional perspectives, policymakers and health care providers can better identify and address the specific challenges faced by the marginalized groups. For example, women may face additional barriers in accessing reproductive health services, while individuals with disabilities may encounter difficulties in accessing essential assistive devices or specialized care (Sharma et al. 2022).

Furthermore, an intersectional lens recognizes the intersecting forms of discrimination and social oppression that marginalized communities face, ensuring that interventions consider the interconnected nature of social inequalities. This approach not only promotes fairness but also leads to more effective and inclusive strategies for mitigating the impact of sanctions on health care systems (Lokot & Avakyan, 2020).

It is imperative that the current state of the health care system undergoes fundamental changes to seamlessly integrate intersectionality in case of economic sanctions (Vedadhir, Bloom, & Majdzadeh 2023). This transformation is essential to elevate intersectionality beyond its current role as a research-based tool or framework for identifying at-risk groups, transforming it into an instrumental force and methodology for designing impactful health interventions and actions. Without the capacity to collect, analyze, and link data in response to economic sanctions that facilitates the identification of intersectional variables for vulnerabilities, the institutionalization of intersectionality within the health care system will remain an unattainable goal. It is crucial for decision-making processes to involve diverse representation, incorporating individuals from various backgrounds, experiences, and perspectives, in order to integrate intersectionality into governance, finance, and service provision. This inclusive approach can pave the way for developing targeted interventions that address the specific needs of marginalized groups, such as resource allocation to areas with higher levels of need or the provision of culturally sensitive, people-centered, and responsive health services. To make health care systems more resilient in the face of sanctions, there must be ongoing assessment and a reflective process that recognizes how sanctions impact health at a systemic level. This involves monitoring the evolving dynamics and complexities of the situation, as well as evaluating the efficacy of interventions and resource allocation.

In addition, embedding intersectionality into the human resources aspect of health care is of utmost importance by integrating it into the educational system for frontline health care

workers (Ghasemi, Rajabi, & Majdzadeh 2021). Merely providing theoretical training on resilience, equality, and intersectionality is inadequate; it must be complemented with educational practicums to foster reflexive practices. This comprehensive approach will empower service providers to utilize an intersectional approach in identifying health inequalities based on social identities during and after health emergencies and delivering appropriate care.

Resilience to Economic Sanctions

Considering the existing macrostructural disjunctors in the cosmopolitical context of our globilized unequal world, the consequences of the sanctions aren't limited to the economic growth of the targeted countries. In the context of the Global South where most countless intended or unintended victims of sanctions live, the vulnerable people experience further sufferings from the sanctions as complications of sanctions are intersectionally intensified by all deprivations and oppressions arising from other existing social, political, and economic gaps and inequities inside or outside the target. Hence, sufferings and damages of the sanctions are characteristically intersectional and transgenerational and take a long time to address. The long-lasting impacts of the sanctions will indeed jeopardize sustainability and security of society in nearly all aspects of social life by erratically involving the future generations in the target. Moreover, these troubles potentially have unpleasant and serious consequences on living and working conditions of people living within diaspora communities and target neighboring states, and the rest of the Global North-South. That is, these problems cannot be fixed immediately and even after all sanctions are lifted.

Reviewing the capacity of health systems in the past three decades highlights the fact that most of them, particularly in the Global South, were unprepared for facing and responding to global public health crises including the sanctions. That is why resilience of health systems matters in the present time of global health emergencies, and the international partnerships and humanitarian NGOs/agencies can play a key role in building relevant and flexible capacities for resilience of health systems and mitigating the impact of economic sanctions on all components of health care systems—that is, *personnel, organization, technoscience, and regulations* (in framework of Field [198]) & Twaddle 2004)—as well as the vulnerable groups within the civilian population who are the primary victims of the sanctions. For example, economic sanctions can significantly affect availability, accessibility, affordability, updatability/flexibility, acceptability, feasibility, and relevancy of the "technoscience" component of the medical care system. This component consists of a vast array of equipment and devices including stethoscopes, endoscopes, colonoscopes, arthroscopes, drugs, heart–lung machines, x-ray and medical imaging machines, hypnosis, biofeedback, occupational therapies, prostheses, and other subsystems, tools, and interventions used in prevention, diagnosis, and treatment (combat) of various types of health problems.

In a broad sense, international collaborations and humanitarian aids can contribute to the resilience of health care systems and more vulnerable groups in the sanctionees in different ways and phases as follows:

Regulating economic sanctions in planning stage: By independently reviewing and possibly influencing public opinion and political decisions on the unintended impacts of sanctions

in the Global North (*the sender*), where most sanctions are justified, planned, and imposed. This can be a wake-up call for society, political leaders, and authorities in the Global North, especially the US, which has been the primary imposer of sanctions since World War II. They need to understand the complexity and uncertainty of sanctions—viewing them as problems rather than solutions—and proactively assess the harmful and unintended consequences of their decisions on health systems, as well as the sustainability and security of civilian populations in targeted nations, to make necessary changes or revisions. They can willingly or not contribute to the development of comprehensive standards and items that can make the sanctions more ethical, transparent, people- and health-centered, and adjusted, or by some means ease the health costs of the sanctions.

Regulating economic sanctions in imposing and framing stage: In cases where sanctions is unavoidable, international partnerships and humanitarian NGOs/agencies can actively mobilize all of their resources to better protects civilian populations, particularly the vulnerable groups in the target, ensuring that their humanitarian needs are met and sanctions do not restrict the human rights and security of all people including the right to food, water, and other natural and public resources/goods (e.g., shelter, school, and health and primary health care facilities) throughout the sanction episodes (Gordon 2020). By highlighting *higher decision stakes, higher uncertainty, diversity of values and criteria, and sustainable and transgenerational impact of sanctions,* they can help the sanctioning power to consider the complexity of economic sanctions and ask them to integrate with accountability, thoroughness, and transparency all humanitarian considerations and multidimensional aspects and consequences of approaching sanctions in consultation with independent organizations operating in the targeted territories as well as children, women, and migrants rights professionals. In line with this, to prevent the unintended consequences of the sanctions and to ensure they do not punish people for the misconducts of their governments, Martin Griffiths, coordinator of UN Humanitarian Affairs and Emergency Relief, recently proposed that before countries implement sanctions, they include humanitarian carve-outs in their plan for sanctions to prevent, manage, and relieve what threatens the well-being of whole swathes of civilian society during the sanctions episodes (United Nations 2022). That is, instead of initiating humanitarian carve-outs after the obstruction of humanitarian goods, countries and health care systems can prevent the obstruction by accounting for it before implementing sanctions. International independent communities and agencies can also be involved in developing and reviewing measures on mistreatment of the vulnerable and minority groups during sanctions episodes in the targets.

Regulating economic sanctions in the reviewing, monitoring, and reporting stages: The sanctions aren't merely abstract points of debate in the international relations. They indeed penetrate the memories, relationships, emotions, securities, meanings, practices, and prospects of people, including the vulnerable populations, personnel of health systems, and even future generations of the society in everyday life. On the other hand, sanctions influence both health policy and health care delivery processes in the target. Regardless of how sanctions are perceived—whether as "good," "bad," or "ugly" by their main actors, observers, and operatives across the Global North (the Center) and the Global South (the Periphery), including both sanctioners and sanctionees—economic sanctions can undermine the resilience of health systems. They introduce significant challenges concerning

the availability, accessibility, affordability, flexibility, acceptability, feasibility, and relevance of all components within the health and medical care system (adapted from Twaddle, 2004). International partnerships and humanitarian aids bodies can develop and run an independent and comprehensive scheme to review, oversee, monitor, and report existing processes, decision procedures, approaches, values, and capacities of health systems to address and manage their crises, lags, and gaps, and be well-prepared, sustainable, flexible, and resilient in the time of political/economic sanctions and other global public health emergencies.

Health System Resilience

Sanctions represent a sudden and significant shift that can directly or indirectly impact a health system, causing it to experience a state of shock. To address the effects of sanctions, certain measures can be taken to enable it to manage the shock, continue to provide health services, and lastly, resist.

To achieve this goal, the initial step is to develop and implement necessary measures to reinforce the health system, which mainly involves strengthening governance structures (governmental rearrangement), financing, and improving the provision of health care services (Sajadi & Majdzadeh, 2022). To augment health system resilience, however, we need to go beyond enhancing just the national health system's capacities. It indeed entails taking additional actions to contend with the complexity of power, politics, and governance in an unpredictable cosmopolitical world (Marchal et al. 2023). A comprehensive list of all these measures can be found in table 16.2, which delineates how each measure is useful for the health system over three distinct phases of shock management: *preparedness, response*, and *recovery.* While there is limited evidence on the effectiveness and feasibility of these measures, we also offer valuable insights into how every measure can be effective in the short and long term.

It seems that more effective and applicable measures in the short and long run were those that somehow improved the efficiency and appropriate allocation of health resources, leading to making a health system resilient against sanctions. According to the existing studies, the main issue in all health systems is inefficiency and waste of health resources (Chisholm & Evans 2010).

Evidently, although shortcuts to responding to the sanctions that rely on the capacity of international organizations or sideways to bypass the sanction might be suitable in the short run, they fail to contribute sufficiently to the long-term resilience of a health system. While taking these measures is inevitable in the short term, it is essential to plan for more effective measures. Measures to increase national capacities are a part of effective measures in the long run. Measures to empower the community and increase participation are more effective in the medium and the long run.

Finally, to make the health system more resilient, we recognized that it would be vital to promote the view of health as an inter- and transnational problem and remove it from a nationalistic perspective. Developing a novel innovative health diplomacy approach must incorporate an overtly interdisciplinary cosmopolitical framework that includes and dignifies human rights and diversities.

Table 16.2
Strategies to strengthen resilience of health systems under the sanctions by functions, stages in the shock management, and time period of plans (Adopted from Sajadi & Majdzadeh 2022)

		Being effective and feasible in*		Stage in the shock management**		
	Measure	Short-term	Long-term	Preparedness	Response	Recovery
Good governance	Strengthening evidence-informed policymaking		*	√	√	√
	Strengthening the global health diplomacy			√		
	Empowering the community and increasing their participation		*	√	√	√
	Establishing and improving a strong surveillance system	*		√	√	
	Developing dual policies of equity and priority for vulnerable groups	*		√	√	
	Constant collaboration and active social networks at national and global levels				×	
	Establishing an appropriate organizational structure to deal with the sanction				×	
	Using the capacity of some international intermediate organizations and certain companies and financial institutions to facilitate purchasing medical items	*			×	
	Considering collateral pathways for procurement of required medical items	*			×	
	Preventing third parties, black market dealers, pharmacies, and health facilities that provide unsafe medicines as well as smugglers				×	×
	Adapting exportation laws based on domestic needs				×	
	Conducting health impact assessments (HIAs) that identify the effects of sanctions on health care		*			±
	Investing in domestic production		*	√	√	√
Sustained financing	Funding for health via sustained sources		*	√	√	√
	Institutionalizing fair and effective resource allocations within the health system	*		√	√	√
	Earmarking foreign income sources for procurement of medicine and medical supplies	*	*	√	√	√

(continued)

Table 16.2
(continued)

	Measure	Being effective and feasible in*		Stage in the shock management**		
		Short-term	Long-term	Preparedness	Response	Recovery
	Extra financial protection for special, incurable, and chronic patients and for allocation of the additional budget to overcompensate unaffordable pharmaceutical products				×	×
	Price reduction of imported medicines through public resources	*			×	
	Prioritizing health among public policies				×	×
	Systematic costing of medicines and medical devices			√	√	√
Equitable service delivery	Facilitating immediate release of medicines from Customs with minimum financial documents				×	
	Establishing support mechanisms to control the social harms of the economic outcomes of sanctions		*		×	×
	Defining tailored health service packages for vulnerable populations	*		√	√	√
	Provision of adequate skilled health workforce			√	√	√
	Motivating and supporting health workforce		*		×	×
	Developing the list of nationally essential medicines	*	*	√	√	√
	Proactive inventory control	*			×	
	Giving priority to public health intervention		*		×	
	Providing clinical guidelines for rational prescribing	*		√	√	√

* The measure that is effective and feasible in the short or long term has received a star (according to Sajadi & Majdzadeh 2022).

√ signifies measures initiated in the preparedness stage and continued until completion.

× indicates measures initiated in the response stage and continued until completion.

± Blue denotes measures undertaken during the recovery stage (according to the authors' analysis).

Resilient Governance

To fully comprehend the diverse consequences of sanctions, a comprehensive understanding of who benefits and who is negatively affected is essential. This requires analyzing the economic, social, and political dynamics involved. The interplay of power, access to resources, and the ability to navigate the sanctions can determine the extent to which health care institutions and actors can effectively address the challenges imposed (Akunjee & Ali 2002).

A comprehensive assessment framework should consider a wide range of factors, including access to essential medicines, medical equipment, and supplies; health workforce capacity; infrastructure;, and health financing. Attention should also be given to the potential disruption of research collaborations, knowledge exchange, and training programs. Crucially, this assessment process must ensure that attention is given to all relevant factors and that no perspectives or needs are ignored (Van Herk et al. 2011). By actively engaging diverse stakeholders, including local communities, health care professionals, researchers, and policymakers, a more accurate and nuanced understanding of the impact of sanctions on health care systems can be achieved. Additionally, ongoing assessment enables adaptive and responsive interventions that can address emerging challenges and adapt to changing circumstances. Regular feedback loops and communication channels between affected communities and decision-makers should be established, fostering transparency, accountability, and mutual trust.

Economic sanctions have profound consequences for health care systems, particularly for vulnerable populations. To make these systems more resilient in such contexts, an intersectionality-informed systemic approach is imperative. By emphasizing evidence-informed interventions, intersectional perspectives, and ongoing assessment, it is possible to better understand and address the diverse effects of political interventions such as sanctions or, in another context, mass incarceration on health care systems (Hagan & Foster, 2015; Foster & Hagan, 2015). Through comprehensive analysis, inclusive decision-making processes, and continuous evaluation, we can work toward building more resilient health care systems that prioritize the health and well-being of all people, but particularly the more vulnerable and marginalized populations, even in the face of economic sanctions.

Conclusion

This chapter has reviewed and shed light on the conceptual and analytical essentials for addressing and strengthening resilience of health systems in the face of economic sanctions as a new and growing area of research on resilience and resilience thinking. While the sanctions cannot be blamed as the main determinant of health problems in the sanctionees, their impact on both the interconnected components of health systems and living and working conditions of people, particularly the more marginalized and vulnerable groups, is unquestionable.

As revealed in the chapter, there are currently various contesting discourses, claims, definitions, narratives, and images about the economic sanctions and their nature and consequences, which altogether coexist in our globalized unequal world. These contesting and different

constructions of the sanctions have not been merely abstract points of debate and/or obviously have not emerged from thin air; they have indeed penetrated the memories, relationships, emotions, prospects, and practices of people including the disadvantaged group in the target.

In this view, a range of different claims-makers and operatives at multiple levels, with varying capacities to mobilize resources (e.g., power, population, cosmopolitical and geopolitical standing, knowledge, contacts, money, and religious authority), and different ideas, ideologies, schemas, discourses, and rhetorical strategies, have advanced claims that name and frame the sanctions in particular ways both to influence foreign policy processes worldwide and to seemingly put behaviors of the sanctionees on the right track. However, it is evident that these controversial and uncertain political interventions above all overshadow and damage real experiences, feelings, meanings, and prospects and practices of people in everyday life on the one hand, and effectiveness of health systems on the other hand.

By primarily impacting both the public and the health systems, sanctions can give rise to several problems in health systems of the targets such as unavailability, inaccessibility, unaffordability, unwelcomeness, impenetrability, inflexibility (paradigmatic lag and crisis), and irrelevancy of cares, policies, and amenities. In these troubling circumstances, the more marginalized and vulnerable people additionally suffer from and are inescapably victimized by the sanctions. Thus, the public and health systems are in the same boat in encountering, experiencing, responding to, and recovering from the economic sanctions in the targets where the top priority of leaders and governing authorities is mostly to assert their sovereignty and ideology and manage the country in a survival mode. By taking and integrating the intersectionality-informed perspective, giving voice to those involved in the health policymaking processes, emphasizing evidence-driven health governance and interventions, and developing reliable measures and ongoing assessment, it is more likely we can better understand and address the diverse consequences of political interventions such as economic sanctions or, in another context, mass incarceration on health sectors.

In conclusion, an overtly intersectionality-informed approach to resilience of both health sector (*protect and improve the system* and its composing components) and people/ public (*save lives*) can minimize the lasting and irreversible costs and implications of sanctions for the public health security of both existing and upcoming generations in the sanctioned countries.

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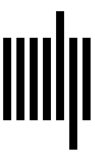

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