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Contribution of the International Agencies to Supporting the Resilience of Health Care System in the Gaza Strip

Rasha Ziad Masoud Almoghany

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Contribution of the International Agencies to Supporting the Resilience of Health Care System in the Gaza Strip

Submitted by
Rasha Ziad Masoud Almoghany

BSc. of Business Administration – Islamic University of Gaza - Gaza, Palestine

Supervisor: Prof. Dr.Yehia Awad Abed
PhD, Professor of Public Health

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Prepared by: Rasha Ziad Masoud Almoghany
Registration Number: 21711363

Supervisor: Prof. Dr. Yehia Awad Abed

Master thesis submitted and accepted. Date: 29/11/2020
The names and signatures of examining committee members as follows:

1) Head of Committee: Prof. Dr. Yehia Abed Signature
2) Internal Examiner: Dr. Bassam Abu Hamad Signature
3) External Examiner: Dr. Mahmoud Radwan Signature

Jerusalem – Palestine

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Declaration

I certify that this thesis submitted to the degree of master is the result of my own research, except where otherwise acknowledged, and that this thesis or any of its parts has not been submitted for higher degree to any other university or institution.

Signature: 

Rasha Ziad Almoghany

29th /November/ 2020

Dedication

To whom I owe my life, my loving family

My whole-hearted parents

My supportive brother and sisters; Hatem, Rana, Mona, Samar

To my sister and brothers in law; Rasha, Masoud and Hamed

My nephews and nieces; Lojain, Sama, Ziad, Tala, Abdullah, Hala, Abudullah, Ahmed and Yehia

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Rasha Ziad Almoghany

Abstract

This study was conducted to assess the resilience of the healthcare system in the Gaza Strip and to ascertain the degree to which international agencies are contributing to this resilience. The study design is cross sectional with triangulation between quantitative and qualitative methods. The instruments used were self-administered questionnaire that studied the perspective of the management staff at the main health care provision organizations filled by 157 participants at a response rate of 72% in addition to 14 Key Informant Interviews.

Of the participants, 79% were males, 61.1% were older than 45 years and 77% of them were from the Ministry of Health. Participants who were working at the central management constituted 40.8 %, the rest were distributed between the primary and secondary health care fields. Moreover, the majority had postgraduate certificates either master or Doctor of Philosophy 68.2%. In addition, 81.5% have ever received a kind of public health training.

General speaking, the Palestinian Healthcare System is quite resilient with a total score of 75.9 %, characterized with diversity 77%, adaptiveness 71%, self-regulation 79%, integration 75% and awareness 79%. The International Agencies somewhat contributed to Health System resilience characteristics 58.4%. The highest International Agencies' contribution was for the diversity capacity 61%.

The five main areas of International Agencies interventions were awareness and health education 78.3%, training and capacity building 72.4%, Primary Health Care 67.1%, equipment and constructions 67.1% and Secondary Health Care 35.5%.The International Agencies has strong capacity to mobilize resource, succeeded to support the immediate response in emergency. However, International Agencies have their agendas and are affected by politics. International Agencies need to better consider the emergency versus development nexus. Policy makers need to better utilize the International Agencies to support the resilience of health care in the Gaza Strip.

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List of Abbreviations

Abbreviation	Description
AIDS	Acquired immunodeficiency syndrome
ANOVA	Analysis of Variances
CAS	Complex Adaptive System
COVID 19	Corona Virus Disease 2019
DFID	Department of International Development
DK	Don't Know
EU	European Union
EWARN	Early Warning, Alert and Response System
GMR	Great March of Return
GRM	Gaza Reconstruction Mechanism
GS	Gaza Strip
HeRAMS	Health Resources and Services Availability Monitoring System
HIV	Human Immunodeficiency Virus
HS	Health Care System
HSS	Health Systems Strengthening
HW	Health Workforce
IAs	International Agencies
IASC	Inter-Agency Standing Committee
ICU	Intensive Care Unit
IHME	Institute for Health Metrics and Evaluation
IT	Information Technology
KI	Key Informant
KIIs	Key Informant Interviews
MDGs	Millennium Development Goals
MoF	Ministry of Finance
MoH	Ministry of Health
MoI	Ministry of Interior
MoSA	Ministry of Social Affairs
MRI	Magnetic Reasoning Imaging
NCD	Non-Communicable Disease
NGOs	Non-Governmental Organizations
NHI	National Health Insurance
NHSS	National Health Sector Strategy

NHSSP	Nepal Health Sector Support Programme
NPISH	Non-Profit Institutions Serving Households
OCHA	United Nations Office of the Coordination of Humanitarian Affairs
OECD	Organization for Economic Co-operation and Development
OOP	Out of Pocket Payment
oPt	Occupied Palestinian Territories
PA	Palestinian Authority
PCBS	Palestinian Central Bureau of Statistics
PCI	Percutaneous coronary intervention
PHC	Primary Health care
PhD	Doctor of Philosophy
PHIC	Palestinian Health Information Center
PNGO	Palestinian Network of Non-Governmental Organizations
PNIPH	Palestinian National Institute of Public Health
PRCS	Palestinian Red Crescent Society
PRRINN-MNCH	Partnership for Reviving Routine Immunization in Northern Nigeria and Maternal Newborn Child Health
RCS – GS	Red Crescent Society for Gaza Strip
RMNCH	Reproductive, Maternal, Newborn, and Child Health
SDGs	Sustainable Development Goals
SPSS	Statistical Package of Social Sciences
TB	Tuberculosis
UHC	Universal Health Coverage
UN	United Nations
UNFPA	United Nations Population Fund
UNICEF	The United Nations International Children's Emergency Fund
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
UNSCO	Office of The United Nations Special Coordinator for The Middle East Peace Process
USAID	United States Agency for International Development
USD	United States Dollar
WHO	World Health Organization
Wt.	Weighted

Chapter One
Introduction

1.1 Background

Health system resilience is defined as "*The capacity of health actors, institutions, and populations to prepare for and effectively respond to crises; maintain core functions when a crisis hits; and, informed by lessons learnt during the crisis, reorganize if conditions require it"* (Kurk et al., 2017, P.1). The term health system resilience gained attention after the outbreaks of Ebola in the West of Africa in 2014, the spread of Zika Virus and Middle East Respiratory Syndrome, when weak systems lacked the responsiveness aspect of the system and failed to respond rapidly in an integrated manner (Kieny et al., 2014). Closely exploring such systems will identify some common systematic weaknesses that lead to the unsatisfactory outcomes, like the lack of an adequate number of qualified staffs, weak infrastructure, logistics, health information, surveillance, governance and systems of drug supply in addition to the low or non-coverage of health insurance leading to more of out of pocket payments and reduced access (Kieny et al., 2014). Today, Health systems all over the world are challenged to confront the most serious pandemic in the century the Corona Virus Disease 2019 (COVID 19). Where systems are struggling to design and implement measures to contain the disease as well as to reduce the infection rate. Simultaneously, while managing the pressure of the pandemic, health systems must stay resilient enough to provide routine patients' care in an effective and efficient manner (Organization for Economic Co-operation and Development [OECD], 2020). For decades International Agencies have been playing significant roles in supporting health systems in low- and middle-income countries (Richter, 2014). This is with the aim to achieve the universal health goals; starting with Millennium Development Goals (MDGs) and now with Sustainable Development Goals (SDGs). In developing and middle-income countries, the scope of health challenges is increasing day by day and most healthcare systems are unable to address those issues alone (Redlener &Reilly, 2012). Therefore, IAs intervene through several activities trying to tackle those issues. Their role revolves around mobilizing resources from public and private sources, providing financial and technical assistance to recipient countries, contributing to the generation of global public goods like surveillance of diseases, developing standards, creation of data and knowledge; in addition to the

coordination of aids (Witter and Hunter, 2017). Despite that IAs interventions supported by international aid contribute to supporting countries achieving development goals, but they also have their pitfalls; international aid might lead countries to become aid dependent. Usually aid comes in the form of short-term interventions that lacks the sustainability aspect or impact. On the other hand, a combination of external and internal factors lead aids to be geared towards donors' gains rather than benefiting the welfare of the country receiving aid (Herfkens& Bains, 2007).

World Health Organization (WHO) places a great emphasis on health systems as means to deliver effective, efficient and equitable health interventions to those in need. "*This is where the concept of health system strengthening comes as a cornerstone to achieve the desired health outcomes*" (Alva et al., 2009, P.7). During the era of MDG the Global development assistance for health was substantially increased from US $10.8 billion in 2001 to $28.1 billion in 2012, and it's impacts on health were remarkable in tackling global challenges such as Human Immunodeficiency Virus (HIV)/ Acquired immunodeficiency syndrome (AIDS) and malaria (Yamey et al., 2016). A study developed by Stanford University, School of Public Medicine about both public and private health aid programs between 1974 and 2010 in 140 countries found that health aid in 1990 accounted for 4% of total foreign aid, and at the time of the study amounted 15% of all aid (Richter, 2014). Moreover, health aid is becoming an important part of health budgets of the recipient countries, representing 25% to 30% of health-care spending in low-income countries (Richter, 2014).

Building on the MDGs experience; the 2030 Agenda for SDGs was adopted in 2015 to guide global development with health embodied in the third SDG, in which Universal Health Coverage (UHC) underpins the achievement of the health and related SDG targets. Health systems strengthening for universal health coverage was identified by WHO as one of the key instruments for the change offered by the 2030 Agenda (WHO, 2015). A functional health system is the main pillar for the attainment of the UHC, including the provision of essential health services needed by a population. This requires the integration of good governance, adequate financing, qualified and motivated health workforce, access to quality medicines and health products, functional health information systems and people-centered service delivery systems. The strong health system should ensure public health security and the resilience of the systems (WHO, 2017[a]).

Since its establishment in 1994; the Palestinian health system has been operating under circumstances of chronic crisis; the Israeli occupation with its continuous and illegal trammels, the persistent blockade on Gaza, internal political rift, frequent Israeli wars as well as the movement and access restrictions, all together are factors that prevent any chance for sustainable change towards development. The Palestinian health system has always suffered a chronic budget deficit with high dependency on international aid (World Bank, 2015). Moreover, it is characterized by fragmentation where multiple players contributing to service delivery but lacking appropriate coordination (World Bank, 2015).

1.2 Research Problem

The Palestinian health system is highly dependent on donor's aid where IAs are performing a major role in supporting the system to perform its basic operations (World Bank, 2015). More than seventy international organizations and government agencies are implementing projects in the Occupied Palestinian Territory (oPt) including United Nations (UN) bodies, Non-Governmental Organizations (NGOs) and government organizations (Health Cluster, 2020).

The first out of the four strategic priorities identified by WHO and the Palestinian Ministry of Health (MoH) for the Country Cooperation Strategy for WHO and the Occupied Palestinian Territory (2017 – 2020) was to '*contribute to the strengthening and building resilience of the Palestinian health system and enhance MoH leadership to progress towards Universal Health Coverage* (WHO, 2017[b]). This priority underscores the importance for IAs to support the resilience of the health system hence to contribute to the achievement of the health-related SDGs (WHO, 2017[a]).The question on whether the current interventions supported by the IAs are strengthening the resilience of the systems is always a legitimate and the case of Palestinian healthcare system is not an exception. And from a developmental perspective, donors and IAs are supposed to support and finance the health systems temporarily until the systems can become independent; that's when the donors can safely phase out and leave the hosting country. Several research studies were conducted to explore how the Palestinian health system is performing; however, few studies investigated the role of IAs in supporting the performance of the health system, particularly the resilience of this system in the Gaza Strip. Thus, there is a gap in knowledge about the role of the IAs in supporting the resilience of the health system in the Gaza strip. To the best of the researcher's knowledge, this study will be the first to bridge this gap through assessing the resilience of the health system in the Gaza Strip and the contribution of the IAs to supporting this resilience.

1.3 Justification of the Study

The Palestinian health system is performing under severely difficult circumstances, including the Israeli occupation, protracted political situation, and the economic collapse. Specifically, the situation in the Gaza Strip is even worse; with more than thirteen years of blockade, internal political rift and frequent wars. Moreover, the electricity crisis and the acute chronic shortages in essential drugs and medical supplies. Under such circumstances the system straggles to effectively respond to the health demands of the Gaza population and to deliver health care with a reasonable quality and in an efficient manner.

For decades, the Palestinian healthcare system relied on the international support; mainly the financial to perform its basic functions where it is hard to imagine the sustainability of the Palestinian healthcare system without donors' contributions. With the current other protracted crises in the Middle East, global financial crisis, donors' fatigue; that in part due to loosing hope of any progress towards a political solution in the area and political pressure from donors such as the United States Agency for International Development (USAID). The donors' contribution to support healthcare system is reduced significantly, thus, this may create more gaps in the funding needed to cover the needs of the health services in the Gaza Strip (WHO, 2017[b]).

From a developmental perspective, donors and IAs are supposed to support and finance the health systems temporarily until the systems can stand alone and become strong enough and independent; that's when the donors can safely phase out and leave the hosting country. The question on whether the current interventions supported by the IAs are strengthening the resilience of the systems is always a legitimate, the case of Palestinian healthcare system is not an exception.

Through this study the researcher will assess the resilience of the health system in the Gaza Strip and will strive to ascertain the extent to which the IAs contribute to supporting the resilience of the health system in the Gaza Strip. This study will be an addition to the current body of literature about the Palestinian health system and will contribute to the enrichment of the global body of knowledge available on the resilience of health systems. It will provide answers to questions about how the healthcare system in Palestine has been performing and might be performing in the future using the lens of the concepts of resilience. In an area characterized with chronic crisis like the Gaza Strip, health planners

and decision makers need to build their strategic plans and decisions on evidence generated from reliable and valid research studies, thus, this study will try to generate such needed evidence.

The study will provide an overview for the managers at the health care provision organizations as well as donors and international agencies on how the system that health providers are delivering its services, and the donors are supporting its functioning is performing. Answering the question about if their efforts are worth off, if they are achieving the desired outcomes and to what extent it worth it. In addition, to what could be done to improve their performance. For the providers; of what should be improved and how. For the donors of what needs to be supported and how.

This study is of great importance to the researcher herself, as a Palestinian from Gaza working in the sector of international support to the health field in the Gaza Strip, this study will help the researcher along with other actors to provide aid that increase the resilience of the Palestinian healthcare system.

1.4 Study objective

1.4.1 Overall aim

This study aims to assess the contribution of the international agencies to supporting the resilience of health care system in the Gaza Strip in order to identify areas that potentially can improve the system resilience, thus, provide healthcare services that are effective and efficient leading to the improvement of the overall wellbeing of Palestinians in the Gaza Strip.

1.4.2 Specific Objectives

1. To assess the level of resilience of healthcare system in the Gaza Strip
2. To ascertain the degree to which IAs are contributing to supporting the resilience of the healthcare system in the Gaza Strip
3. To identify the main strengths and weakness of the IAs' interventions to supporting the resilience of healthcare system in the Gaza Strip
4. To study the personal and job variations among healthcare providers in their perspectives about the resilience of the HS and the contribution of IA's to HS resilience
5. To propose recommendations that could improve the impact of IAs' interventions to supporting the resilience of the health system in Gaza Strip

1.5 Context of the study

1.5.1 Demographic Context:

Palestine is occupied by Israel, located in Asia on the eastern coast of the Mediterranean Sea. Historical Palestine is 27,000 km2, according to the Palestinian Central Bureau of Statistics (PCBS) the Israeli occupation control more than 85% of this land (PCBS, 2018) [b.] The remaining area is divided into two geographically distinct territorial units, West Bank and the Gaza Strip. According to (PCBS) the total population in 2017 was 4,952,168 in addition to 1.56 million in the occupied territories in 1948. The population distribution shows that 60.1% live in (West Bank) and 39.9% people in the southern governorates (Gaza Strip) (PCBS, 2017). It's worth mentioning that Gaza has one of the highest population densities in the world; the population density in the Gaza Strip was 5,203 individuals/km2, noting that 66% of the total population of the Gaza Strip are refugees (PCBS, 2017). Population distribution by sex shows that 50.9% of the population are males and 49.1% are females. The total average fertility in the Gaza Strip is 3.7 (MoH, 2019), the growth rate is 3.3%. The growth rate remains high as a result of the increased fertility rate and reduced mortality rate. According to the MoH, the life expectancy increased to 73.9 years (72.8 years for males and 75.1 year for females) where this increase is attributed to the improvements in health conditions (MoH, 2019). Furthermore, according to the Palestinian Health Information Center (PHIC), in 2018 the crude birth rate in the Gaza Strip was 29.8 per 1000. While the reported crude death rate at the same year was 2.3 per 1000 of population (MoH, 2019). Overall, the Palestinian society is characterized to be young society as the percentage of children under five years of age is 13.8% of the total of population and the percentage of children in the 0-14 age group is 38.7%. Moreover, the percentage of the population aged 65 years and above is 3.2% (PCBS, 2018[a]). All abovementioned indicators reflect the high demand on health care services, thus, the need for having a resilient health system with the adequate capacity to respond to the population health needs.

Concerning the main mortality indicators; in 2018, maternal mortality ratio in Palestine was 16.7 per 100,000 live births (MoH, 2019). Despite that Lastly, there has been a concerning increase in maternal mortality in both Gaza and the West Bank. According to the MoH data, there was a 183% increase (from 5.9 to 16.7 deaths per 100,000 live births) in maternal mortality from 2017 to 2018, and an even higher increase in the West Bank. Data from the MoH 2019 annual report showed that the maternal mortality ratio in 2019

was 30.8 per 100,000 live birth. According to the same report infant mortality rate in 2019 was 6 per 1000 livebirths (MoH, 2020[b]). According to the MoH in 2018 cardiovascular disease remained as the main leading cause of deaths in Palestine, reported at 31.5% of total deaths, the second leading cause of death was cancer reported at 15.4%, followed by stroke as the third cause of death reported at 13% from the total deaths. The fourth cause of death was related to complications in the perinatal period, accounted for 9.5% of total deaths. Furthermore, complications of diabetes contributed to 7.5% of all deaths. It was reported by the MoH that the four causes of chronic diseases including cardiovascular disease, cancer, stroke and diabetes accounted for 67.4% of all reported deaths in 2018 (MoH, 2019).

1.5.2 Socioeconomic characteristic context:

More than seventy years of occupation, prolonged blockade, internal political division, and frequent wars have hugely impacted the economy of the Gaza Strip and hindered any opportunities for development (WHO, 2017[b]). The isolation, the ongoing humanitarian crisis in the Gaza strip lead to mass poverty, food insecurity and reduced access to the most basic rights and services (PCBS, 2018[a]). The unemployment level reached a skyrocketing rate of 45%, the highest rates are among young population at 70%. the real income of a Palestinian in Gaza about 30% less than in 1999 (United Nations Office of the Coordination of Humanitarian Affairs [OCHA], 2018). Businesses in Gaza still have not recovered from the additional shock of the three wars, with only a minimum of the funds pledged for recovery from the 2014 escalation disbursed for the productive sectors, and despite the entry of significant amounts of construction material into Gaza through the Gaza Reconstruction Mechanism (GRM) (OCHA, 2018).

Poverty in Gaza reached 53%, food insecurity 68% making people aid dependent (OCHA, 2018). Furthermore, the purchasing power is low, one of the reasons is the PA's policy of withholding the payment of salaries and allowances to employees in the context of the internal Palestinian divide, alongside a cut in reconstruction and development aid, particularly by the US government (OCHA, 2018).

The socio-economic context has its implications on the performance of the Palestinian healthcare system where adding to the previously mentioned political and economic problems a new catastrophe was added; the influx of mass causalities resulting from the

Great March of Return started in March 2018. Where the overly stretched health care system needed to sustain resilient in front all those burdens. Not to forget that the oPt is witnessing a significant shortfall in donor support for the Palestinian authority, United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) for Palestine refugees in the Near East and humanitarian operations in general, undermining the IAs' ability to respond to the needs. However, the funding is more concentrated on emergency rather than developmental interventions (OCHA, 2018). With reference to the Humanitarian Response Plan for 2019, due to the funding gaps the targeted number of vulnerable people and the amounts needed to provide the needed assistance for this population were reduced from 539.7 million United States Dollar (USD) required for 1.9 million people in 2018 to 350 million USD required for 1.4 million people. This reduction is a result of the need to prioritize the needs in the face of funding gaps. For the health sector in Gaza, the estimated number of people in need of essential health care in 2019 is 676,522, however humanitarian actors are targeting 555,615 of those people with an amount of 28.2 million USD out of which only 9.7 million USD were received leaving a funding gap of 18.5 million USD (OCHA, 2018).

1.5.3 Healthcare System:

Healthcare in Palestine is provided through four main providers the MoH, UNRWA, NGOs and the private for-profit sector. The MoH is the main provider and governor of the system. The MoH provides a combination if primary, secondary and tertiary health services in addition to regulatory and support services. In addition to referral to non-MoH Palestinian hospitals and treatment abroad. UNRWA mainly provides primary health care services to registered refugees in the Gaza Strip and West Bank. NGOs and the private sector also play major roles in providing primary and secondary health care services in Palestine. NGOS receive funds from a variety of sources depending on their ideologies and interests. (World Bank, 2006).

Primary Health Care (PHC) services are mainly provided by158 health centers distributed along the five governorates in the GS (MoH, 2020)[b]. 33 centers are in the north, 44 in Gaza, 31 in the middle, 34 in Khanyounis and 16 in Rafah (MoH, 2019)[a]. Regarding their distribution according to the health care providers; 52 are MoH centers, 22 are UNRWA's, 80 NGOs' and 5 centers belong to the Military Health Services (MoH, 2020)[b]. It's worth to mention that UNRWA services are provided for free. Those services include mother and

child health care, other specialized services and vaccination services provided in cooperation with the MoH (MoH, 2020) [b.] Moreover, 18 NGOs' centers provide purely PHC services and 62 provide specialized services beside PHC services. Moreover, about the availability of PHCs per population there is one center for each 12,788 population (MoH, 2020) [b.]

Secondary health care services are provided through 34 hospitals (13 MoH, 17 NGOs, 2 Ministry of Interior (MoI) and 2 private). Where there is 1 hospital per 59,381 population (1.68/100,000) (MoH, 2020). According to the MoH 2019 health annual report the total number of beds was 3,049, where there was 1 bed for each 622 people, with a bed occupancy rate of 95% at MoH hospitals only (MoH, 2020).Physiotherapy services are provided through 37 centers (32.4% MoH, 5.4% MoI, 29.7% UNRWA and 32.4 NGOs) (MoH, 2020).

"*The Palestinian health sector is at a crossroads. The financial sustainability of the healthcare system is in doubt"* (World Bank, 2016). The system is in an instable fiscal position, many factors contributed to the straining of the fiscal position of the system. Including the in certain flaw of foreign aid, in efficiencies, duplication of services and the ongoing increase of the cost of referrals in addition to the increasing prevalence of non-communicable disease requiring expensive and long-term treatment (World Bank, 2016). Moreover, health expenditures are on the rise. However, health outcomes are below their potential when compared to the level of expenditure (World Bank, 2016). Health expenditures increased dramatically in the last decade. According to PCBS 2016- 2017 data on selected indicators, total health expenditures in 2017 were 1.4667 billion US dollars, representing 10.3% of GDP. That is higher than the Middle East and North Africa Average (excluding high income countries) in 2017 of 6.68% (World bank, 2020[c]).

Main resources of funding for the Palestinian health system are public, private, non-profit institutions and Palestinians living abroad (World Bank, 2016). In 2016 Household Out of pocket payment (OOP) as a financing scheme represented the largest percentage of 45.5% of health expenditures which is higher than the MENA average of 34.26 % (World Bank, 2020)[d]. This High OOP reflects that Palestinians are not protected from being impoverished as a result of health spending. The second source of financing is the public sector included of central, state and local government units and the social security funds administered by these units. Public funds for health are engendered through general taxes

raised by the Ministry of Finance (MoF) and the Government Health Insurance scheme (GHI). In 2016 public funds constituted 30.5% of health expenditures. The third source of funding is the rest of the world it constituted 15.2% in 2016. However, the Palestinian health sector is still highly dependent on external funding that comes in the form of support to the MoH recurrent budget and investments, to the UNRWA, and NGOs (WHO, 2017).

Lastly, Voluntary health care payment schemes contribute as a source of healthcare system funding; it's share in 2016 was 8.8% of health expenditures. It includes voluntary health care insurance schemes and Non-Profit Institutions Serving Households (NPISH) (PCBS, 2018[a]).

The national health insurance schemes were in place since the establishment of the Palestinian National Authority in 1994. It's an extension of the health insurance system that was imposed by the Israeli occupation in the oPT in 1974. The health insurance scheme is incomprehensive (The Coalition for Accountability and Integrity [AMAN], 2018). In Gaza 2019 the total number of insured families was 227,642 families, 52% of which had formal paid health insurance schemes, while 48% were exempted and obtains the available National Health Insurance (NHI) services for free (MoH, 220). The total NHI revenues in the same year were 7 million ILS, 0.9 million ILS less than 2018 (MoH, 2020). Noting that the total exemptions amounted 103.5 million, 3.5% increase from 2018 (MoH, 2020). It's worth to add that about 78% of the population in Gaza and Westbank are covered by a prepaid health insurance plan, out of which 90% by MoH and UNRWA and they significantly overlap (WHO 2019). The free health insurance schemes are constituting a burden to the HS rather than an effective source of income.

Several bodies contribute to the coordination of aid to the Palestinian health system and to the provision of coherent technical and financial support; like Local Aid Coordination Secretariat, the Ad Hoc Liaison Committee which is chaired by the Norway and co-sponsored by the European Union (EU) (WHO, 2017[a]). Whereas, the role of principal policy-level coordination mechanism for development assistance is performed by the United States. Furthermore, the United States, the world bank (Secretariat), the International Monetary Fund and the Office of the Quartet works together to develop reviews of and discussions about political and economic progress in addition to identifying priorities for donor support through assessments. A health sector working group chaired by the ministry of health and co-chaired by USAID was established to cooperate with several

sub working technical thematic groups whom work together to coordinate the mechanisms for health development support.

The international community support the PA to improve governance and to perform the role of coordinating managing, and overall integration of the international aid investments. The PA receives direct financial assistance from the World Bank, EU, Saudi Arabia, Algeria, Iraq, and selected EU members and others who substantially contribute to the payment of pensions, salaries and social allowances, and support covering the patients' referral cost to East Jerusalem hospitals. The donations received by the health sector are either for institutional capacity development or to financially assist specific projects (WHO, 2017[a]).

The major donors to the health sector are the USAID, EU, World Bank and other Arab donor countries (WHO, 2017[a]). Since 1948, The United States has been the main donor to the Palestinian people as well as a major political leader in the whole region. American assistance to the people of Palestine started with the creation of UNRWA in 1949 and it has always been associated with politics (Palestinian Economic Policy Research Institute [MAS], 2019). US assistance focused on three areas: support to UNRWA through multilateral funding mechanisms, bilateral humanitarian and development aid through the USAID, and foreign and security policy programs bilateral assistance delivered through government agencies. between 2001 and 2018 before Trumps decision to cut all US aids to the oPt. Through its different channels the US bilateral (direct) assistance to the Palestinian people in the oPt amounted 6.9 billion USD (an average annual rate of $ 385 million) with 5%in 2009 to 9% in 2017 allocated for health n. Howevwe, most assistance was allocated to support governance 52% in 2009 -54% in 2017 (MAS, 2019).

Total number of health workers in the Palestine is 36,809 (Palestinian National Institute of Public Health [PNIPH], 2019). In Gaza the number is 14,632 from (MoH, UNRWA, NGOs and the military services) (MoH, 2020) [b.] 14.4% of the Health Workforce (HW) in Palestine are doctors including GPs and specialists, 23% are nurses. While administrative and support posts constitute one third of the employed HW (PNIPH, 2019).

There is 1.1 doctors and 2 nurses and midwives for each 1000 population (PNIPH, 2019). While there is no minimum standard ratio for the number of required HW per population. However, WHO suggested a ratio of 1 doctor and 3 nurses and midwives per 1000

population. Therefore, Palestine is not considered to be less than this standard in doctors but in nurses and midwives. However, it's in the minimum threshold (PNIPH, 2019).

Palestine is believed to be short in the number of specialist doctors particularly family medicine, oncology, hematology, psychiatric, emergency and ICU, pathology, neurology, pediatric surgery and vascular surgery and other. Those are considered the most critical specialties based on the leading causes of death and the top reasons for which patients get referred outside of governmental health facilities (PNIPH, 2019). Health professions participates with 81% in the Palestinian labor force however the unemployment rate among licensed professionals is 32%. The numbers of health profession graduates is expected to increase in the coming five years. It's worth to mention that there are two factors affecting the numbers of HW, the retirement and immigration which is also considered a threatening factor. The HW in Palestine is young, where 74% of which are younger than 45 years. However, 12% of medical specialists in Gaza are above 60 years, which is an alarm for the need to train the new generation to replace those specialists (PNIPH, 2019). Most of health workers in Gaza are public employees. HW are rotating among health workers. However, it's most apparent among doctors where they hold 1400 jobs above their current number (5291 doctors in 6772 jobs). They are employed by more than one provider where that distorts the availability of doctors among sectors (PNIPH, 2019). HWs specially in Gaza are working under stressing circumstances of drug shortages, outdated equipment with poor maintenance. (PNIPH, 2019). Not to forget that the partial payment of salaries has impacted employee satisfaction. Maintenance of skills, in service training is being implemented in an integrated manner (PNIPH, 2019).

1.6 Operational Definitions

1.6.1 Health System Resilience:

Health system resilience can be defined as the capacity of health actors, institutions, and populations to prepare for and effectively respond to crises; maintain core functions when a crisis hits; and, informed by lessons learned during the crisis, reorganize if conditions require it (Kruk et al., 2017).

1.6.2 International Agencies (IAs):

Are international organizations involved in mobilizing resources from both public and private sources and using them to extend development assistance to low-and middle-

income countries around the world. They provide country-focused financial and technical assistance to developing countries, and contribute to the generation of global public goods, such as disease surveillance, norms and standards, data and knowledge, and aid coordination (Institute for Health Metrics and Evaluation [IHME], 2009).

1.6.3 Healthcare System:

Is a set of components that interact with each other to promote, restore or maintain health. Those components are health actors, institutions and populations.

1.6.4 Healthcare providers:

Are the main local organizations delivering health care goods and services to the population in the GS. Including the MoH, UNRWA and NGOs.

Chapter Two

Literature Review

2.1 The conceptual framework

A conceptual framework is a "network, or "a map," of concepts that are interlinked together to provide a comprehensive understanding of a phenomena" (Jabareen, 2009).Adopting a system thinking approach the researcher utilized the health system resilience framework developed by Kruk and colleagues in their proposal for resilience index to assess the contribution of the IAs to supporting the resilience of the health system in the Gaza Strip to become a more resilient system. The conceptual framework starts with the contribution of the IAs, where an arrow indicates to their impact on the health care providers, with an additional arrow pointing on their different personal and organizational characteristics. Then the interaction between the contribution of IAs block and the health care providers blocks will determine the degree to which the system is characterized with the resilience characteristics (aware, integrated, adaptive, self-regulating and diverse).

2.2 The Conceptual Framework

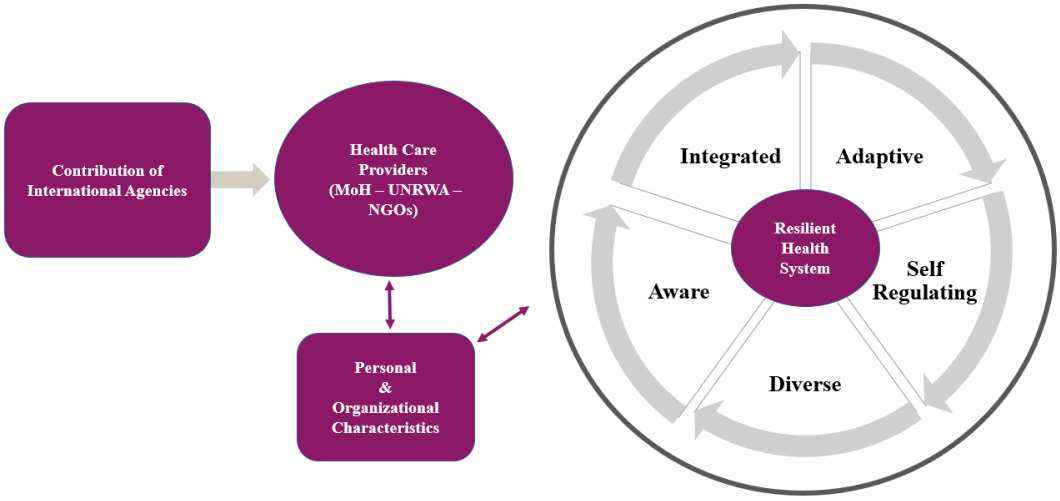

Figure (2.1): The relationship between the contribution of the International Agencies and the resilience of the health system

2.2.1 Contribution of International Agencies:

It refers to the aggregate of IAs' interventions that support the Palestinian health system to build resilience.

2.2.2 Health Care Providers:

Are organizations and actors whose primary activity is to deliver health care goods and services. However, health care provision is not their own activity but one of several activities OECD, Eurostat, & WHO, 2017).

2.2.3 Personal and Organizational Characteristics:

Are the specific personal and organizational qualities that distinguish one person from the other and one organization from the other. Personal factors like gender, age, years of experience, educational level, etc. Organizational factors include managerial level, sector of work, field of work, etc.

2.2.4 Characteristics of resilient health system:

Based on the Rockefeller Foundation's City Resilience Framework Kruk and colleagues described five key characteristics of the resilient health systems, they are:

1- **Aware:** They are aware of all their available resources including human, physical and informational. What are the strengths, weaknesses as well as the opportunities for growth and risks and threats to thrive? Awareness is a result of a well-structured health information and surveillance systems.
2- **Diverse:** The system is capable to provide a wide range and comprehensive vertical and horizontal health services. Further, able to manage diverse health challenges as they arise.
3- **Self-regulatory:** In times of threats and all of the time the system still able to deliver core routine services without interruption, This has three elements; first, the ability to quickly identify a threat, isolate it and allocate resources to it, second, minimizing disruption to provision of essential health services during crisis, and third, the availability, locations, of excess or redundant capacity that can quickly be brought online.
4- **Integrated:** Resilient health system involves a diverse array of actors, ideas, and groups that get integrated together to create solutions, initiate and implement actions. Hallmarks of integration are coordination among the diverse stakeholders, sharing information and coordination. An essential aspect of integration is the participation of the community representing the people whom the system serves.

5- **Adaptive:** Adaptability of the health system is the resilient characteristic that lies in the ability to transform in the times of adversity in a way that leads to improve the functioning of the system. If the system is adaptive then it's enhancing its performance in the short run and in ideally in the long run to build a sustainable resilience. Adaptability should not only manifest in crisis but demonstrated in normal times such as continuously adapting to the epidemiological and demographical changes. In times of natural disasters or other mass-casualty events, health systems might need to adapt to respond to health needs of refugees or internally displaced people. Response to emergencies requires the availability of strong leaders, data and capacity to use it and enabling organizational and management structures (Kruk et al., 2015).

Those five features require a strong foundation of local and national leadership, a committed health workforce, enough infrastructure, and global support. The global support is of high importance to be highlighted that resilience does not mean self-sufficiency but rather smart dependency (Kurk et al., 2017).

2.3 Literature review

2.3.1 What is resilience?

Resilience in any discipline would mean "*the capacity to recover quickly from difficulties; toughness". "the ability of a substance or object to spring back into shape; elasticity*" (Oxford Learners Dictionary). Other synonyms flexibility pliability, suppleness, plasticity, elasticity, springiness, durability, ability to last, strength, sturdiness and toughness.

The term exists in several disciplines. Where in physics, resilience is the ability of a material or structure to absorb the energy of a shock by deformation and release it again by springing back to its original form (Hawken, 2018). However, in biology it refers to an ecosystem's capacity to absorb and resist any damage from internal or external mechanisms and recover quickly (Hawken, 2018). Moreover, in psychology it refers to the individual's ability to cope with excess levels of stress and adversity, resuming one's previous life after the crisis (Hawken, 2018).

Let us say that the general meaning of the term resilience is to absorb and adapt to internal or external shocks It's not only to manage the crisis like preventing the spread of disease but also that day to day life will continue.

2.3.2 Resilience in the health sector:

The term resilience has reemerged in the health sector after the Ebola crisis in the western of Africa, when weak health systems were unable to contain the outbreak and the Ebola crossed the borders of the countries particularly Liberia, sierra Leone and Guinea. When that was after decades of domestic and international investments to achieve progresses towards the achievement of the MDGs (Kruk et al., 2015). Since that time health system expert panels pointed out the political and technical weaknesses of the multilateral organizations in tackling health crisis; the reports concluded that an effective national health system will be the first line of defense against any future pandemics (Kruk et al., 2015). Moreover, experts called to better manage public health capacity and to invest in building resilient health systems; systems that are capable to withstand shocks while maintaining routine functions. (Kruk et al., 2015). On a similar perspective the global symposium in health system research concluded that a health system to be described as a resilient system it must be able to absorb the shocks and preserve the obtained gains ,

otherwise will risk having decades of investment wiped out (Mills, 2017). The term has also been used to refer to the health system's capacity to both survive sudden shocks like disease outbreaks and simultaneously manage the ongoing stress of structural, policy, managerial as well as community instability. Moreover (McKenzie, et al., 2016); defined it as "the capacity of a health system to deal with change, to adapt and transform, and to maintain relevance, when confronted by major disruptions". However, as mentioned in the operational definitions the researcher will use the definition of (Kurk, et al., 2017) where it was defined as "the capacity of health actors, institutions, and populations to prepare for and effectively respond to crises; maintain core functions when a crisis hits; and, informed by lessons learnt during the crisis, reorganize if conditions require it." As this definition is more comprehensive and implies a more system thinking approach in health. The scope of this study will be focused on the perception of the health actors and institutions of the health system resilience rather than the populations.

2.3.3 Frameworks and approaches to health system resilience:

Reviewing the literature related to health system resilience showed that there are two main frameworks created by (Kurk et al. , 2017) and (Paina & Peters, 2011) on the health system resilience and all resilient health. Kurk and colleagues (2017) characterized a resilient health system as the system that obtains knowledge of available resources as well as the emerging challenges; another special characteristic is its versatility to act against a broad range of challenges. In addition to the ability to contain health crises and the same time avoid damages in other parts of the health system. Resilient health systems have the capacity to design and implement a multi-sectoral response that integrates a range of actors and institutions; and utilize flexible processes that allow for adaptation during crises (Witter and Hunter, 2017).

(Paina and Peters, 2011) framework for resilience focused on three aspects: absorptive, adaptive and transformative resilience. They refer to the protection of service delivery during crises, the ability of a government to manage the health system using fewer resources as well as to its ability to introduce realistic reforms in response to the changing environment (Witter and Hunter, 2017). The (Piana & Peters, 2011) framework was based on the Complex Adaptive System (CAS) of behavior; The Northern Nigeria has implemented a ten years health system reform program with the aim to strengthen the health system to become more resilient. This reform was based on the CAS approach. A

multidisciplinary team of professionals from Nigeria worked together to address many aspects of the Nigerian health system simultaneously at the same time including governance, finance, institutional management, community systems support, access and accountability in addition to service delivery. The main challenge was that the Northern Nigeria health system was characterized with weak governance and limited management capability in an irregulated market. In addition to these systematic weaknesses the shock of Boko Haram insurgency contributed to increasing the fragility of the security system and hence the health system. With fund from the UK aid directed by the UK government and the Department of State of the Norwegian Government; the main intervention was the Partnership for Reviving Routine Immunization in Northern Nigeria and Maternal Newborn Child Health (PRRINN-MNCH). A program that implemented service improvement measures to improve health outcomes; with focus on strengthening the health system through a system thinking approach to enhance mainly system governance and by addressing the main weaknesses in the other building blocks. In terms of the program strengthening strategy it was based on the main factors characterizing a health system, however the multidimensionality of resilience make it difficult to find measurable metrics, Therefore, in this initiative the significant proportion of health services focused on Reproductive, Maternal, Newborn, and Child Health (RMNCH), the capacity to deliver the RMNCH continuum of care was considered an indicator of health system functionality and effectiveness, therefore a foundation for resilience (McKenzie et al., 2016).

What could be concluded is that it was a slow process that needed to continue for a long-term until a change was achieved. Moreover, the CAS suggests that the health system strengthening is achieved through the interaction of the system components, with a requirement to interact with the local stakeholders. The approach stresses on the importance of improving the governance of the system hence the system resilience. It has been noted that the multidimensionality of resilience leaves the application of simple metrics inappropriate, but that key aspects of resilience include the qualities of awareness, diversity, self-regulation, integration, and adaptation. Where with that the CAS agrees with Kurk and colleagues (2017) on the same features of a resilient health system (McKenzie et al., 2016).

2.3.4 Characteristics of the resilient health system:

Recalling and reflecting on the experiences of health systems that were exposed to shocks that contributed to improving their resilience is a sensible way to summarize the resilience characteristics. The systems of Lebanon, Liberia and Indonesia were the examples analyzed by Kurk and colleagues (2017) to explain what health system resilience in action is. In Lebanon the chronic system dysfunction was aggravated by a population influx from Syria crisis; when the population increased by more than 30%. This is where the diversification and an integration with the private health providers played the role to respond to the health needs of the population through consultation and contracting with private sector providers, to provide primary care to both citizens and refugees. The characteristic of awareness to detect local warning and call for support and the self-regulation which is the ability to isolate threats and maintain core functions under stress was reflected by Liberia experience with the Ebola epidemic. The initial paralysis of the health system was partly caused by poor understanding, at all levels, of the severity of the disease. However, the response of creating Ebola treatment units was late. Finally, Indonesia showed the characteristic of a learning and adaptive system in anticipation of future catastrophic weather events crisis. (Kurk, et al., 2017). Indonesia learned to institute mitigation centers after the poor coordination they showed during tsunamis. Kruk and colleagues (2017) indicated that all responses were too late after the crisis therefore, they stressed on the need that future research should focus on how the elements of resilience perform when adopted before the event.

Recognizing people as producers of health was also important aspect of the resilient health system. Involving people and communities in the development of the response is a potential mean of strengthening government accountability to its citizens. This could be translated in creating a mechanism of state-society partnerships that will allow government officials to assimilate the experience, expectations and capabilities of affected people into a containment strategy; providing a more powerful and empathetic response. It’s about involving local community leaders in finding and implementing the measures that best match their needs.

A study was conducted by Alameddine and colleagues (2018) to explore the resilience of the UNRWA health care system in Lebanon and Jordan with respect to the influx of the Palestinian refugees from Syria. The study adopted the capacity-oriented resilience framework (including absorption, adaptation and transformation). The methodology of the study was qualitative where they conducted 62 semi-structured interviews in Lebanon and Jordan with professionals at primary care, area, and country management levels. Participants reflected on changes in population health status and health service delivery during the Syrian crisis, notably with respect to the influx of refugees from Syria. Interviews were analyzed through inductive thematic analysis and used to critically interrogate health systems resilience against a pro-capacity's framework. The study found that UNRWA systems in Lebanon and Jordan were broadly resilient, deploying diverse strategies to address health challenges and friction between host and refugee populations. Absorptive capacity was evidenced by successful accommodation of increased patient numbers across most service areas. Adaptive capacities were reflected in broadening of collaboration and reconfiguration of staff roles to enhance service delivery. Transformative capacities were demonstrated in the revision of the service packages provided. While manifest as technical capacities, these clearly drew upon solidarity and commitment linked to the political context of the Palestinian experience (Alameddine et al., 2018).

2.3.5 Health system resilience from different perspectives:

A panel from European Health Forum Gastein; whom were key stakeholders in European health policy presented diversified ideas about what can help health systems in Europe to be resilient and innovative. This panel summarized that some health systems are more resilient than others, when they are exposed to shocks, systems vary in their level of coping and adapting to the change, therefore some countries respond to the financial or economic crisis with implementing some mitigation measures, however, others transform the crisis into an opportunity for a whole system reform. For Eurohealth (2013) with the purpose to present ideas about what make the European health system more resilient they concluded that; what makes a system more resilient and innovative is first good governance. According to, Zsuzsanna Jakab the regional director of the WHO, "*prepared, resilient health systems are primarily the result of good governance*" (Eurohealth, 2013, P4) In addition to governance is the role of a public health approach, where investment in prevention and health promotion activities will result in a healthier society, that will reduce

the burden on the system. Moreover, Eurohealth (2013) provided that being innovative either socially or technologically would also lead to the strengthening of the efficiency and effectiveness of the system to deliver better health care. Finally, solidarity, collaboration and mutual support are keys to the confrontation of common crisis, where safeguarding solidarity and joining practical collaborative approaches will not only share evidence but also will contribute to create solutions to common problems.

In light of the preparation and capacity to recover aspects of health system resilience Redlener and Reilly (2012) reported that there are three key principles for recovery. First, consider "the health care delivery system and public health infrastructure as an integrated whole in planning for, responding to, or recovering from large-scale disasters." Second, apply "lessons from previous disasters to the planning for future events." Third, "incorporate science into disaster policy and planning processes". Going forward, it is essential to consider the vulnerability of critical infrastructure including public health and medical infrastructure to climate change (Redlener &Reilly, 2012). Those principles come in line with Kurk et al., 2017 characteristics of resilient health system.

As part of studying the resilience of health system in New York, Redlener& and Reilly (2012) analyzed what happened during Sandy hurricane and it' impact on health facilities and infrastructure, the witnessed influx of patients, the closure of facilities and how the system responded in addition to estimating the cost of damages. Furthermore, studied what could happen in the future and articulated a plan for how to make New York more resilient to climate disasters. The study translated the more resilient system as the one able to preserve the wellbeing of citizens, through the maintenance of sufficient capacity to meet the needs during disasters and the capability to resume to normal as quickly as possible after the end of disasters. To avoid closing hospitals; the main lesson learned and action to be taken was to make health facilities flood prone to prevent physical damages to equipment. The expectation was that if that could be successfully done, they can mitigate the impact of disaster and ensure that the system will not be heavily strained (Redlener & Reilly, 2012). Again, this comes in line with kurke et al., perspectives of the system resiliency.

2.3.6 Measurement of health system resilience:

To inform our understanding of system resilience, the OECD's Guidelines for Resilience Systems Analysis provided different types of indicators that can be employed to assess the resilience of our systems based on which we can design the appropriate strategies, policies, programs and plans to strengthen resilience. Those indicators are categorized between system resilience indicators (outcome indicators); considering the overall components of the system, negative indicators that indicates to the strategies people use to reach resilience however they have negative impact on the system components, in addition to process indicators, output indicators and proxy impact indicators which should help to reflect on the impact of programming (Witter and Hunter, 2017).

Kurk and colleagues (2017) in their designed index for resilience developed a set of preliminary measures of national health system resilience. Measures were divided into three categories 1) existing health system and preparedness metrics extracted (from the International Health Regulations, the Global Health Security Agenda, and the Sustainable Development Goals), 2) relevant measures from non-health fields, in addition to 3) newly proposed measures that need further development and testing. It tries to balance between slow and fast drivers of resilience, slow like the (availability of district health staff with public health training) and fast (such as provisions to reallocate money in emergencies) (Kurk et al. , 2017). This index reflects characteristics of everyday resilience that not only encourage routine function but also proactively reduce the possibility of rising system threats. Therefore, it can dictate the development of national health plans. Considering the heterogeneity of health system and national contexts the proposed index did not prescribe national benchmarks. As resilience indicators should be set within countries to accommodate the local context (Kurk et al. , 2017).

According to the rebuild research program consortium much of the research on health systems resilience that has been completed to date was built on those features. However, the focus was on understanding how communities, health workers and organizations respond to crises. Rather than measurements of health systems resilience. Few researches have been done in this area and this was one of the key findings of the 2016 Global Symposium on Health Systems Research.

2.3.7 Role of development donor in resilience, and what is it about? What enable donor partners to be more effective?

Donors and international actors play an essential role, where they can mobilize and bring resources to, and exercise power in, health systems. This role includes support to the production of knowledge. However, a focus on resilience indicates the need for donors to think and work in a different manner, to avoid falling back on quick-fix, short-term, imposed and one-size-fits all approaches to health system development. In July 2017, three research consortia - Future Health Systems, Re-BUILD and RESYST, held a workshop to discuss and share their experience and insights around health system resilience; after the workshop, Department of International Development (DFID) colleagues identified a series of questions that they need to be answered about resilience. As part of a note to answer those questions and drawing on the workshop discussions; answers about the role of donors in resilience were as described below.

Before the designing or implementation of any program. A system-wide based assessment should be undertaken. Upon which needs are identified and relevant response actions are decided. Actors' interventions should be based on a do no harm policy and should avoid quick entry-departure responses that might worsen the status of the affected population.

The actors should adopt a supportive and enabling role and work in collaboration with the local government, institutions communities and other stakeholders. Through building an enabling environment in which local stake holders are deciders for their own fate and leaders for the response actions.

Investing in software parts of the system need not to be underestimated. It's essential to support coordination among the different stakeholders and to enable the integration of their roles in the health system. Through the creation of liaison cluster and sectoral groups. Moreover, coordination among donors, humanitarian and development actors is crucial to avoid duplications and to guarantee that interventions are integrated and complementary to one another. An additional important aspect is to plan for long term frames of responses rather than shorter term responses (Witter and Hunter, 2017).

The partnership concept is one of the most essential components for building resilient health systems. The global health context is complex where there is no single actor responsible for building resilient and sustainable systems but it's the responsibility of all health actors in every country; including the governmental and the non-governmental sector. Whereas the non-governmental sector includes all related stakeholders the (community organizations, private sector, community leaders and the global partners). The partnership concept was also highlighted by Global Fund. "which was created in the 21st-century as a century partnership from the community to the global level with a specific mission to end HIV, Tuberculosis (TB) and malaria as threats to public health. In the evolution of the Fund, there was a recognition that strong health systems integrating robust community responses were needed to reach that objective" (The Global Fund, 2015).

According to the global fund; there are some key issues that must be considered to achieve the objective of building resilient and sustainable health systems including; support to the nationally designed health strategic plans to control disease and to focus on the person and not only on the disease by the integration of service delivery. Moreover, to support specific aspects of the resilient health system like; (procurement and supply chain management, quality assurance of programs by building the human resources capacities, improving data management, financial management and the management of risks). In addition, to encourage creativity and innovation among all sectors to achieve greater impact and value for money. Furthermore, it's vital to ensure community participation by involving communities in national decision-making, where people are at the best place to be the first to identify, report and respond to health emergencies (The Global Fund, 2015). This also came in line with the development plan to support the health system in Liberia which identified three main strategic investment areas that were identified to first; build a fit-for-purpose productive and motivated health workforce. Second; to re-engineer the health infrastructure and service delivery system to conform to the population needs for safe and high-quality health services. Third, to strengthen epidemic preparedness, surveillance and response, expanding and improving the Early Warning, Alert and Response System (EWARN) to detect and respond to future health threats. In addition to other priorities to support supply chain management systems, enhance service delivery systems, Strengthen the health information, research and communication, strengthen community awareness on health risks and their engagement and linkages with the health system, leadership and governance at all levels to ensure effective guidance of health actions. And finally, to

establish sustainable health financing systems that will ensure efficiency and equity in use of health resources (Ministry of Health Government of Liberia, 2015).

There is an agreement in the literature that one of the main outcomes of strengthening the health systems is to build their resilience. The United Nations International Children's Emergency Fund (UNICEF) states that clearly in their vision '*A health system that closes the gaps in access to quality services and in child health and nutrition outcomes, contributes to UHC and the SDGs, and is resilient*' (UNICEF, 2016).UNICEF HSS strategies identified areas on which to focus on when appropriate to the local context of the health system including; the collection, analysis and use of data and information , strengthening national and sub-national procurement, supply and distribution systems , contributing to the social protection system and plan for financing UHC and Supporting national and development partners to engage and regulate the private health sector (UNICEF, 2016).

Furthermore**,** the UK-Aid is supporting the Nepal Health Sector Support Programme (NHSSP); an initiative of the Nepal Ministry of Health, the NHSSP supports the aims of the National Health Sector Strategy (NHSS) and is focused on enhancing the capacity of the Ministry of Health and Department of Urban Development and Building Construction to build a resilient health system and deliver quality health services. As Nepal is going on Decentralization, the work is focused on supporting establishment of efficient health structures and systems in the new federal system providing responsive and flexible technical support to the Ministry of Health, helping to set up systems, structure and resources needed to ensure ongoing delivery of essential health care under the new federal structure. The focus areas of the program also agree with what was mentioned earlier. The areas are health policy and planning, public procurement and financial management, service delivery, evidence and accountability and finally health infrastructure (NHSSP,2019).

2.3.8 The Palestinian Health care System from a resilience perspective:

Several studies have explored many aspects of the Palestinian healthcare system and identified its distinguishing features. However, one of the previous studies had not explored the resilience of the system but provided insights about the resilience of the system from the same perspective adopted in this study.

2.3.8.1 Distinguishing features of the Palestinian Health System

The Palestinian health system has unique distinguishing features that were derived from the unique circumstances it lived. Its operating in an acutely unstable political environment under the control of the Israeli Occupation, which has its implications on weakening the system governance and undermining its effectiveness. The financial capacity of the Palestinian health system is constrained by its dependency on donors. Where donations are fluctuating depending on the political situation. Moreover, the Palestinian health system is characterized with stratification and fragmentation due to two main reasons. First the political separation between West Bank and the GS that lead to the creation of two separate systems in the two areas. Moreover, there are multiple health care providers and players in the system including MoH, UNRWA, NGOs, and the private sector, In addition to the contribution of the international actors might be a driving factor to system fragmentation, all that influences the system efficiency and causes redundancy in services (World bank, 2015) (WHO, 2016).

Despite the complicated context in which the Palestinian health system is performing, the system could be described as a well performing system. Where the key health outcome indicators are showing improving trends, it's comparatively good and similar when compared to the surrounding countries in the Mediterranean region. (WHO, 2017[b]).

Regardless of the system stratification between the multiple health care providers, their contribution is providing more choices and improving access to the users of the system, where more choices and improved access are factors contributing to enhancing the system resilience to shocks. However, the weaknesses side of the stratification and the uneven distribution of health care services cannot be ignored. Referring to the World Bank document on the project of West Bank and Gaza - Health System Resiliency Strengthening; in the West Bank, there is one MoH clinic for every 6000 inhabitants, with a wide variation among its governorates, while in Gaza the ratio is more than double at around one clinic for every 12000 population. Furthermore, in 2012 and according to the MoH there were 12.6 hospital beds per 10000 population (13.9 in Gaza and 11.8 in the West Bank). The distribution is uneven across governorates, from 27.5 beds per 10 000 population in Bethlehem to 5.4 in Deir Al Balah in Gaza (World bank, 2015).

2.3.8.2 Shocking crisis to the Gaza Healthcare System

2.3.8.2.1 Wars on Gaza

Gaza witnessed three wars between the years 2008 and 2014. Wars that placed additional significant pressure on the already weak system. The experience of 2014 war was one of the toughest, until now, the system has not fully recovered. It was a seen of mass causalities when more than 2100 Palestinians were killed and more than 10,000 were injured not to forget its devastating impact on the psychological wellbeing of the population. At the level of affected infrastructure; the war attacks resulted in the destruction of multiple hospitals, health centers and approximately 11,000 homes and damages of 6800. That lead to the displacement of one third of the Gaza population; considered to be the highest level of internal displacement since the year 1967 (WHO, 2017[b]). The health facilities were operating under intermitted and unreliable power supply, they depended-on fuel emergency generators. Moreover, they had severe shortages of drugs and supplies in addition to difficulties in importing spare parts for the maintenance of equipment. All lead to decreasing the quality of services. Due to the lack of funding the after -war reconstruction is progressing very slowly. Where nearly half of the 3.5 billion USD pledged at the 2014 Cairo conference has not been disbursed. And still there is a gap of 200 million USD needed to complete the reconstruction of destroyed and damaged homes (Office of the united nations special coordinator for the middle east peace process [UNSCO], 2018).

2.3.8.3 Shortages of Drugs and Supplies

Gaza suffers severe shortages in medicines and other supplies. Along 2019 the zero-stock level of essential drugs ranged between 45 and 51.9 (MoH, 2020) [a.] Of the main reasons for the contributing to this shortage is the increase of medicines prices, where the Palestinian MoH who suffers budget shortages overpays substantially for many medicines, compared to international benchmark prices, this increase in prices is a result of the import restriction and Paris Protocol on Economic Relations that formalizes an effective customs union with Israel and has its implications on the affordability of medicines and overall health care (Bouquet & Dubroca, 2019).

2.3.8.4 Electricity shortage

For more than a decade the GS has been suffering chronic shortage in electricity. Which is another contributing factor to increasing the fragility of the living conditions. Gaza reached the peak of deterioration in April 2017, in the context of disputes between the governing authorities in the GS and the West Bank-based PA. This ongoing power shortage has always been threating the functionality of the health system and produced a sustained state of emergency (OCHA, 2019).

2.3.8.5 Great March of Return (GMR)

One of the most recent health crises in the GS is the Great March of Return that started in March 2018. An additional burden over the over stretched system, with thousands of Gazans including hundreds of children, have been injured with live ammunitions, with many suffering life-threatening injuries resulting in amputation of limbs. The system got overwhelmed with the huge influx of patients with gunshot wounds where such complicated injuries require specialized treatment over a period of time. Treatment that the existed capacity of the health system cannot make it available. The impact of the Great March of Return is not only on physical health but also has psychological consequences, where it was estimated that 210,000 people or over 1 in 10 people suffer from severe or moderate mental health disorders. Regular health care was impeded as elective surgeries were suspended, hospital beds were relocated to serve surgical patients, health staff and ambulances were diverted. Basic primary healthcare services providing medication to critical non-communicable disease patients were put under excessive strain (UNSCO, 2018). Even GMR was stopped, the health system has also not recovered from its overwhelming consequences and before raising its head the COVID 19 was the next hit.

2.3.8.6 COVID 19

Considering the previously mentioned crisis, COVID 19 in Gaza means that the overly stretched health system will be even more stretched. Where all given circumstances will constrict the health system capacity to effectively respond to the crisis. Despite that, From December 2019 (the onset of COVID 19 in China) until August 2020, the health system in Gaza succeeded to show resilience capacities. Where the integrated efforts of the government represented by the MoH, the MoI and the Ministry of Social Affairs (MoSA)

and other local as well as international actors succeeded to delay the spread of the virous inside the community (MoH, 2020) [c.] Since March 2020, the Palestinian MoH has officially declared a state of emergency right after the reporting of COVID 19 cases in Bethlehem (OCHA, 2020). Accordingly, from that time public health efforts were shifted to respond to the emergency status. Emergency preparedness and response plans were created, measures for disease detection and prevention were developed to avoid and delay the catastrophe as much as possible. Given the severity of the disease as respiratory and that the whole world is struggling where funding and medical products are hugely demanded everywhere. Measures taken included that; Since 15th of March a Compulsory quarantine was imposed on all returnees to Gaza through both crossings; the south in Rafah crossing as well as the Erez north crossing. Special quarantine centers were designated to host returnees suspected with COVID 19 for 21 days. In addition, a protocol for PCR test for all quarantined cases was created. 5 governmental schools distributed among all the GS were allocated to deal with respiratory diseases other than COVID 19. All outpatient clinics in all hospitals were suspended. In addition, all non -urgent surgeries were stopped. Moreover, all educational activities were stopped. And office working hours for the non-health staff and non-security staff were reduced to minimum. Furthermore, all social, religious and economic activities events including large gatherings were banned like weddings, markets and Friday prayers in addition to other activities like workshops and conferences were stopped. Citizens were advised to stay home and limit their movement after that curfews were imposed. All measures were announced to be activated until further notices by the government representatives (MoH, 2020) [c.]

Despite that the taken measures particularly restriction of movement contributes to the infection prevention and control of virous spread. They have their impact on patients access to equitable healthcare. Particularly patients with non-communicable diseases and specifically cancer patients who need referral outside of Gaza (Alser, et al., 2020).

A detailed response plan was created and launched in March 2020 by the humanitarian community with the aim to respond to the emergency status. The interventions and needed funds are continuously being updated based on the events on the ground. Humanitarian funds were reallocated, and donations are being raised for the response. OCHA regularly issues situational reports, providing updates on people needs, funds that has been raised, undertaken interventions as well as issues that need to be addressed (OCHA, 2020).

2.3.9 Aid to the health sector:

"Palestinians are among the most aid-subsidized people on earth" (Abdelnour, 2011). foreign aid that the Palestinians receive exceed that in many Asian and African countries (Abdelnour, 2011). Many consider that these payments were the biggest in foreign aid history, whereby no country ever received such a huge amount of aid before. Aid represent a significant variable in the Palestinian economy where it equals about 46% of GDP. And "*a full third of the Palestinian Authority's budget is aid subsidized"* (Abdelnour, 2011).

On the other side, it is believed that Israel is the largest recipient of aids in the Middle East through the USA and others, and these aids are estimated by more than five billion annually. Billions of US dollars were pumped to the West Bank and the GS since the Oslo Accords in 1990s. With the claimed aims to support the socioeconomic development and to build the Palestinian institutions that are necessary to achieve the two-state solution. The United States lead the process of mobilizing resources for donations to support the establishment of the Palestinian Authority (PA). It succeeded to build a set of donors who represented most of the developed countries in the world. The AHLC was created in 1993 to coordinate the aid process (Brown, 2018). It was later joined by other structures like the Quartet in 2002 and the Temporary International Mechanism in 2006. Those were designed to be the channel of assistance to an emerging Palestinian political entity. However, the Temporary International Mechanism has expired. Between the years 1994 and 2016, the total official assistance to the West Bank and the GS was 35.1 billion US dollars. Donated by the United States, United Nations, EU institutions and member states and other donors. Between 2008-2016 the average amount of donations per year was 2.3 billion US dollars (Brown, 2018).

Despite that foreign aid plays a fundamental role towards the achievement of the development goals in the low and middle income countries, but they also have unstated or hidden goals, The stated goals beside the promotion of development include to alleviate suffering, to improve relationships among states and to reduce instability. At the hidden list; goals include; Gaining alliances in the international political arena, securing access to strategic resources, support population groups on political, ethnic or religious grounds, avoiding direct political or military engagement, promoting political and economic models and satisfying donor-country lobbies and businesses(Stefanini,2019).

Since 1967, the Israeli occupation of the West Bank and the GS, the Palestinian economy has been on a path-dependent model and aligned with the Israeli economic and political interests. The situation got even worse after the Oslo Accords. When imbalanced economic power between the Palestinians and the Israelis was institutionalized through the Paris Protocol in 1994. That's when Oslo underscored the use of international funds with the aim to develop the Palestinian economy. International funds are poured to Palestinians with no pressure on Israel to end the occupation or to remove the structural barriers to economic and political de-development. "International donors have significant influence over the PA through formal aid structures, steering committees, and multilateral working groups. The result is a "checkbook" diplomacy, whereby international aid indirectly funds the expropriation of Palestinian lands and siege of Gaza, while drastically limiting the sovereignty of the PA. Indeed, the PA has no independent source of revenue: two-thirds of its budget is made up of revenues collected by Israel; the other third is provided by foreign aid". What could be concluded with that about the impact of the international aid is that it's a key factor of the Palestinians de-development , it's a cover for the Israeli occupation, it removes the responsibility of Israel as an occupier towards the destruction of Palestinian infrastructure, livelihoods and hence their lives. Therefore, providing Israel with the opportunity to accelerate poverty among Palestinians, to expand settlements, to expropriate Jerusalem, and to destroy Gaza. Furthermore, foreign aid contributes to the creation of dependencies where local organizations become unable to exert their own agendas (Abdelnour, 2011).

In terms of the health sector and the international fund contribution to the health system in Palestine, there are multiple donors providing support to the health sector through institutional capacity development of the health system as well as through financial assistance for specific projects.

The World Health Organization lies at the head of IAs in the Palestinian health system, as it provides technical assistance to the MoH and partners for developing preparedness plans and strengthening capacities to implement the international health regulations. Khader (2015) assessed the role of the WHO in strengthening the health system in the GS, where he concluded that that the greatest attention of the WHO support was directed towards the governmental health sector, and it mainly focuses on primary care services, particularly in

terms of providing medicines and medical supplies. The perceived relationships with the organization was more of a professional relationship.

Aside from WHO, various donors provide support to specific projects, examples of such projects and interventions include: Palestinian National Institute of Public Health (Norway), Health information systems (USAID), Reform of mental health services European Union (EU), Support for East Jerusalem hospitals and the network (EU, and several EU and Arab donor countries) and Health insurance and referral master plan (World Bank).

Examples of donors targeted health initiatives in the Palestinian Health System included efforts by the Swiss Government, EU and others to facilitate health worker re-integration in Gaza that aimed to create a solution to ensure sustainable salary payments. The World Bank supported an initiative to sustain catering and cleaning services in GS hospitals. However, it was ended in 2015. In addition, the World Bank supported negotiations with Israel to strengthen transparency to enable the Palestinian health authorities to rationalize the payment regime for referral health services in Israeli hospitals. Furthermore, the World Bank was implementing a project to secure the continuity in service delivery and to build health system resilience the project was planned to end in 2019.

The UN Development Assistance Framework contributes to the identification of priorities for joint UN programming for the medium term and aligns with the National Policy Agenda to support national development efforts (World bank, 2015).

UNRWA delivers basic health services and is responsible for providing a healthy living environment for Palestinian refugees. The UNRWA health program has been delivering comprehensive primary health care services, both preventive and curative, to refugees, and WHO supports refugees' access to health care services through coordination with the health cluster and advocacy efforts for health access for referral patients, especially patients in Gaza and Area C. It's worth mentioning that UNRWA's annual health expenditure in Gaza equals 493 million USD (UNRWA, 2016).

UNICEF works with the Palestinian Authority and a broad range of partners to protect children and women from the impact of violence and to prevent further deterioration in their conditions and well-being. Their programs target the most vulnerable children and

women, focusing on health and nutrition and water, sanitation and health in addition to the procurement and distribution of medical supplies in crises (WHO, 2017[b]).

United Nations Population Fund (UNFPA) focuses on advocacy, policy dialogue and knowledge management to promote reproductive health and reproductive rights to avert maternal deaths, increase postnatal care coverage, reduce the unmet need for family planning, empower young people and respond effectively to gender-based violence (WHO, 2017[b]).

The World Bank aims to strengthen the capacity of the Ministry of Health to manage health expenditures, as outlined in its Assistance Strategy of 2015–2016 for the West Bank and Gaza. It is focusing efforts to reduce expenditures for referral patients in facilities outside the Palestinian health system and aims to help the Ministry of Health implement the policy recommendations from a recent World Bank-supported referral analysis. This includes an assessment of the cost–effectiveness of developing priority tertiary care services within Palestine, technical assistance for rationalizing and organizing referrals and the development of a referral manual (WHO, 2017[b]).

The Ministry has developed bilateral cooperation agreements with various donors and governments, both for developing the health system and for building the capacity of Ministry of Health staff (WHO, 2017[b]).

The form in which the EU supports the MoH is through the PEGASE the Direct Financial Support Mechanism for institution building for the Palestinian Authority. It aids the health sector by providing budget support to pay the PA referral service debts to the East Jerusalem hospitals and promotes reform of the health referral system. In addition, the EU has been supporting the reform of the mental health services in Palestine and intends to support a new WHO mental health project to enhance Palestinian well-being and build resilience through improving mental health and psychosocial response in emergencies (WHO, 2017[b]).

USAID used to support various health projects, including the initiative in Gaza (Envision Gaza 2020), which was planned to continue until 2020 and to promote the recovery, reconstruction, and redevelopment in Gaza through four major activities: water and sanitation, private sector development, health and humanitarian assistance. However, this

project was terminated with the united states' cut of all kinds of support to the oPt (WHO, 2017[b]).

For the Arab states and funding institutions, there are also multiple donors supporting the health system such as the Qatari Red Crescent Society, the Red Crescent of the United Arab Emirates and the Islamic Development Bank (WHO, 2017[b]).

Chapter Three
Methodology

This chapter illustrates the methodology implemented in this thesis. Including; study period, study population, eligibility criteria, exclusion criteria, study instruments, pilot study, data collection, data entry and analysis, scientific rigor, ethical consideration and limitations of the study.

3.1 Study design

The study design is cross sectional with triangulation between quantitative and qualitative methods. The quantitative part assesses the resilience of the Palestinian healthcare system and ascertains the contribution of IAs to the supporting the resilience of this system. Besides; the qualitative part explores and explains in-depth ideas about the highest and lowest aspects of Health System (HS) resilience capacities and the contribution if IAs to supporting those capacities.

3.2 Study population

The population targeted for the quantitative part was 216 first to top level management staff working at the three main health care provision organizations in the GS (MoH, UNRWA and local NGOs). For the qualitative part, the population targeted was directors as well as program managers representing oPt health cluster partner organizations including (40 INGOs, 45 NGOs, 9 UN agencies, 2 National authorities and 5 donors).

3.3 Study settings

The study was conducted in the GS, involved collecting data from the main health care providers, including the MoH, UNRWA, Local NGOs, as well as IAs working in the GS.

3.4 Study period

The study period was 7 months Started in January 2020 and completed in July 2020. As follows:

- Quantitative part: Started in January 2020 after completion of all administrative and ethical procedures, data collection from the targeted managerial staff at heath care provision organizations was started in January 2020 and was completed in June 2020.

- Qualitative part: In-depth interviews with the manages at health care provision organizations and managers at IAs offices in Gaza were completed, processed and coded in the third week of July 2020.

3.5 Study sample

For quantitative part: The research sample was a purposive sample. Where the researcher targeted health managers who are assumed to have experience about the HS capacities in the GS as well as the contributions of IAs towards the HS.

- MoH: After study approval from the Human Resources and Development Department at the MoH in Gaza; a list of 162 mangers was obtained from the personnel affairs department, all were targeted. The list included first to top level managers starting from the deputy minister to starting with the directors of departments up to the deputy minister.
- UNRWA: After approval obtaining approval from the Health Program at UNRWA's Head, Quarter Office in Amman an email was sent by UNRWA health filed office in Gaza to 34 managerial staff at UNRWA.
- Local NGOs: After agreement with the supervisor 20 managers and program officers were targeted at 15 of the most active NGOs.

For qualitative part: 17 managers and experts from MoH and IAs who were mentioned in the quantitative part as of the most active organizations contributing to the HS in the GS were targeted.

3.6 Eligibility criteria

Inclusion criteria

For quantitative data: Top, middle and first level managers serving at the health care provision field and has been working in the health sector for five years at least, any participant who does not fit to this criterion was excluded from the study.

For qualitative data: experts and key persons working at health care provision organizations and IAs operating in the GS with at least five years of experience in the health sector.

Exclusion criteria

For both quantitative and qualitative data:

- Staff in non-supervisory positions were excluded
- Staff with less than five years of experience in the health sector
- All volunteers

3.7 Study instruments

This study utilized two instruments; a structured questionnaire and guiding questions for Key Informant Interviews (KIIs).

For quantitative data: a structured questionnaire was developed based on two frameworks; the WHO health system six building blocks and the five characteristics of a resilient health system developed by Kurk and Colleagues (2017) in their proposed index for resilient health system (Annex 1). The six building blocks was used as a guidance or a road map for the development of the questions adopting a system thinking approach. The Kurk and Colleagues (2017) framework was also used due to its perceived validity and clarity by the researcher. Given that the framework provided a clear list of HS resilience characteristics or capacities with detailed capacity items under each. Moreover, the study assessed the whole system resilience capacity rather than studying the system's capacity to confront a specific emergency as in other studies that assessed system's capacity to confront a specific type of emergency. like (Almeddine) 2018, who used the (absorptive, adaptive transformative) resilience framework to assess the resilience of the UNRWA health system in Lebanon and Jordan amid the influx of Palestinian refugees from Syria. Finally, the HS in the GS performs under chronic emergency, where the strong resilience capacity of the six building blocks is a mandatory not an option.

The questionnaire assessed the perception of health care providers of the resilience of the HS in the GS as well as the contribution of IA's to HS resilience based on the two mentioned frameworks. It's worth to mention that according to the definition used in this study of HS resilience, it includes the resilience health actors, institutions and the community. However, this study covered the perspectives of health actors and institutions without the community. Where that is suggested as an aspect for further research in the area of HS resilience.

The questionnaire included 81 questions divided between three main sections:

1. Demographic and Personal Information
2. Assessment of the Resilience of the Palestinian Health System in the GS and the contribution of the IAs to HS resilience
3. Nature of IAs interventions in the HS in the GS

For qualitative data: after analyzing the questionnaire and based on the preliminary findings a set of guiding questions were developed to achieve an in-depth understanding about the resilience of the HS and the contributions of IAs towards it (Annex 2). Following the same frameworks as in the quantitative but with a more diversified group including the perceptions of the IA's (supporters) and the providers.

Main themes discussed in the interviews were:

1. HS Service delivery and responsiveness
2. Availability and flexibility of Funding
3. Health workforce
4. Governance - Self-regulation
5. HS Integration
6. Community involvement and participation in HS design and decision making
7. Health information system and HS awareness capacity

In both the quantitative and qualitative methods, the researcher assessed the HS resilience and the contribution of the IAs to supporting the resilience of the health system based on the following aspects adapted from Kurk and colleagues (2017) proposed index for resilient health system (annex 3).

Diversity:

- Effectively respond to a range of health needs
- Adequately finance health systems; prevent financial harm

Self-regulation:

- Isolate threat and maintain core functions
- Leverage outside capacity.

Integration:

- Coordinate with non-health actors (education, transport, police, media, private enterprise)

- Engage citizens and communities to build trust
- Link health care provision to public health
- Coordinate primary and referral care

Adaptiveness:

- Shift resources to meet needs
- Promote rapid decision making
- Evaluate to improve

Awareness:

- Awareness of the health system capacity
- Awareness of risks and population
- Communication

3.8 Pilot study

A pilot study was conducted to explore the appropriateness, validity and reliability of the study instruments. 30 questionnaires were distributed to MoH, UNRWA and NGOs out of which 23 were returned. Cronbach's Alpha was calculated with a result of 0.971 for the HS resilience scale and 0.994 for the scale of IAs contribution to HS resilience, no major changes were required. Therefore, the 23 questionnaires were included in the analyzed study sample. it was noticed that respondents left many blanks therefore a Don't Know (DK) option for answering was added.

3.9 Ethical Considerations

An official letter of administrative approval to conduct the study was obtained from School of Public Health at Al-Quds University. The approval of the Helsinki Committee in the GS was obtained (Annex 5). And administration approval was taken from each organization participated in the study (Annex 6). To guarantee participants' rights, a covering letter indicating that the participation is voluntary, was attached with each distributed questionnaire. Transparency, honesty, and truth respect was maintained. Neither personal data nor identities were revealed by the researcher.

3.10 Data collection

The data collector was the researcher. Data collection duration was 6 months. It was started in December 2019 and ended in June 2020. The researcher started with the quantitative data collection (questionnaire). Lists of targeted groups at MoH and NGOs was obtained and organized by the researcher. The UNRWA targeted managers were contacted through the health field office in Gaza. The questionnaire was self-administered. However, the researcher contacted participants before handling or sending the questionnaire to participants to explain about the study objectives and why they are targeted. In addition, to get their approval to participate. All respondents were given the same chance to ask about the questionnaire items. The average time for filling the questionnaire was between 30 and 40 minutes. However, it should be noted that targeted group were very cooperative. But as managers they were busy and could hardly allocate time to fill the questionnaires. To address this the researcher communicated over phone with participants to finalize filling the questionnaire. And this was one of the factors that prolonged the duration of quantitative data collection.

The qualitative data collection was conducted in July 2020 after completing the preliminary analysis of the questionnaire. Hence, identifying areas that needed in-depth understanding.

Method used was Key Informant Interviews (KIIs) conducted over phone or on-site visits based on target group preferences. 2 KIIs were conducted on phone and 12 on Key Informants' (KIs) work sites. Over a week 17 KIs were invited to the interview (4 MoH top level managers, 2 directors of local NGOs and 8 IAs out of which 3 were UN agencies). Time of interview was between 30 and 60 minutes, 45 minutes in average.

3.11 Response rate

For the quantitative part; total number of managers invited to voluntarily participate was 216, out of which 157 participated, at a response rate of 72% for the questionnaire. For the qualitative part; out of the 17 invited to participate in KIIs, 14 participated including; (4 MoH top level managers, 2 directors of local NGOs and 5 IAs out of which 3 were UN agencies).

3.12 Data entry and analysis

Quantitative part: The researcher used Statistical Package of Social Science (SPSS) program version 22, for data entry and analysis. The researcher started with data entry. Data entry was completed by the researcher. Data coding was agreed with the supervisor. After data collection and data entry; data cleaning was conducted. Followed by the creation of frequency tables for all study variables. Following that; frequency tables that show participants characteristics and plot differences between various characteristics variables were developed. Moreover, T tests and One-way Analysis of variance (ANOVA) were conducted to compare means of numeric variables. Statistical significance was tested on a P. Value ≤ 0.05.

Qualitative part: Open coding thematic analysis method was used to analyze the data collected through the KIIs the researcher took notes and made summarization for the findings after each interview. Then, categorization of related ideas, identifying thematic areas as well as comparison and integration between the quantitative and the qualitative findings was completed to enrich information and validate findings.

3.13 Scientific rigor

Quantitative part (questionnaire)

3.13.1 Validity:

A well-structured questionnaire was designed and reviewed by 7 experts (Annex 4) to ensure the appropriateness and relevance of the questions. Modifications were made based on expert review Also, a pilot study was conducted before the beginning of actual data collection,by which clients' responses were examined and their understanding of the questionnaire was assessed. This contributed to enhancing the validity of the questionnaire. The researcher herself collected the data.

3.13.2 Reliability:

To enhance reliability the researcher developed a standardized questionnaire. Cronbach`s alpha was used to reassess the internal consistency of the questionnaire. It was calculated using the data from all study participants. The value of Cronbach`s alpha for HS resilience was .870 and for the contribution of IAs to HS resilience was .991 as in table (3.1). Data entry was processed on a weekly basis that lead to easily check the data quality and the re-

fill of the questionnaire when required. Random checks were conducted after finishing data entry to assure correct entry procedure and decrease entry errors.

Table (3.1): Reliability test for the internal consistency of questionnaire items

Construct	Factor	No. of items	Cronbach's Alpha (Health system resilience)	Cronbach's Alpha (contribution of IA)
1	Diversity	12	.811	.945
2	Adaptiveness	14	.902	.933
3	Self-regulation	6	.922	.970
4	Integration	21	.942	.984
5	Awareness	12	.908	.976
Cronbach's Alpha			. 870	.991

Qualitative part

To assure the trustworthiness of the qualitative part in this study, the following actions were carried out; the researcher ensured compatibility between research objectives and methods of data collection. Peer check to questions was conducted to ensure that they cover all the required dimensions. The researcher informed the participants that the participation in the interview is voluntary, and they have the right to accept or reject to answer any question. The interviews were recorded to be saved as a back-up once needed, Notes were taken same time of the interview. Moreover, data coding and analysis of the qualitative data were completed same day after the completion of each day scheduled interviews.

3.14 limitations of the study

The first limitation of the study refers to the cross sectional study design representing a specific snapshot of time, that might not necessarily be representative for the situation over a longer period of time as well as the subjective responses are affected by the HS context over the time of the study. In addition, over the study stages the researcher focused on the events occurred over a specific period, from 2008 (the time of the first war on Gaza) until the year of 2020. Moreover, while HS resilience is represented by health actors, institutions and the community, the study included health actors and institutions only represented by top to first level management staff at MoH, UNRWA and local NGOs. And did not include the perspective of the community or the private sector. Furthermore, the study reflected the perspective of health care providers themselves of the HS that they represent.

Chapter Four

Results, Analysis and Discussion

4.1 Sociodemographic characteristics of Respondents

Table 4.1 shows the sociodemographic characteristics of management staff participated in this study at the health care provision organizations. With regard to gender,79% of respondents were males while the females represented 21%. The distribution of gender is similar to Al-khaldi (2012) and Khader (2015); where in both studies the majority of managerial level respondents were males 85.4 % and 89.4% respectively, however, in this study the representation of females is slightly higher. Two age groups were identified; younger one with 45 years or less represented 38.9% of respondents. However, the older group with more than 45 years were 61.1%, This is explained by that the study participants were drawn from managerial levels that will not be provided to young staff if older staff are still there and more experienced to address the required responsibilities of higher positions.

Table (4.1): Distribution of respondents according to personal characteristics (N 157)

Variable	Category	No.	Percent
Gender	Male	124	79
	Female	33	21
Age	45 years or less	61	38.9
	More than 45 years	96	61.1
Profession	Administrative	53	33.8
	Doctor	46	29.3
	Paramedical	44	28
	Support services	14	8.9

However, the representation of younger participants is higher than Al-khaldi (2012) and Khader (2015). In the study sample, the distribution of management staff's professions was 33.8% administrative, doctors represented 29.3%, paramedical 28% and support services 8.9%. This result was not consistent with Khader (2015) where the highest percentages were for doctors then administrative.

4.2 Job Characteristics

Table 4.2 displays the job characteristics of the managerial staff at the health care provision organizations. For their years of experience more than half; 57.3% had 16 to 25 years of experience, 23.6% had 15 years of experience or less and 19.1% had more than 25 years of experience. Targeting managerial level staff and the age distributions explains the relatively high number of the years of experience. It's worth to add that the high unemployment rate of 70% among youth explains those results, even if they were employed; most likely will be in a non-managerial short-term job.

Table (4.2): Distribution of respondents (according to job characteristics (N 157)

Variable	Category	No.	Percent
Years of Experience in the Health Sector	15 years or less	37	23.6
	16-25 years	90	57.3
	More than 25 years	30	19.1
Sector of Work	MOH	121	77.1
	UNRWA	18	11.5
	NGO	18	11.5
Managerial Level	Top level management	27	17.2
	First to middle level management	130	82.8
Working Governorate	North	11	7.0
	Gaza	106	67.5
	Middle	11	7.0
	Khanyounis	16	10.2
	Rafah	13	8.3
Nature of Work	Administrative	73	46.5
	Technical	4	2.5
	Both	80	51
Field of Work	Central management	64	40.8
	Primary health care	49	31.2
	Hospitals	44	28

77.1% were from MoH, while the UNRWA and NGO were represented with similar percentages of 11.5 each. The respondent management staff were categorized in to two levels of management, the top level represented 17.2% of respondents, while the other level was first to middle who represented 82.8% of respondents. Participants' managerial level is consistent with Khader (2015). Regarding the working governorates, the respondents were distributed in the five GS governorates. The majority of 67.5% were in Gaza, 10.2% were in Khanyounis, 8.3% in Rafah, for the north and middle governorates it was the same at 7% each. Where Gaza is the center of the GS, that explains its high

representation where such targeted central jobs will be in the center. This is also consistent with Al-khaldi (2012) and Khader (2015). About the nature of work 46.5% had an administrative work nature, 2.5% technical. However, 51% of respondents' work nature was a mix of both administrative and technical. This is explained by that we are talking about health management positions which logically will be distributed between admins and health professionals' whose technical capacity should be utilized or will be wasted. Respondents were represented by 3 fields of work; 40.8% were from the central management, 31.2% from PHC and 28% from hospitals. It's believed to be a fair distribution of the field of work, with the highest percentage in the central management to support PHC and Hospitals to address the technical aspects of work.

4.3 Education and training characteristics

Table 4.3 shows the educational and training characteristics of the respondent management staff. 51.6% of managers at health care provision organizations had master's degree, 31.8 % had bachelor's degree, while holders of PhD were 16.6%. This is an indicator of the high level of qualifications that the HS management staff obtains and points to the attention of the health care provision organization to allocate highly qualified staff for such managerial positions. Those results are consistent with Hammad (2013) and Khader (2015). It's worth to mention that 81.5% of responding management staff received different levels of public health raining, when 43.3% received a short course, 29.9% received higher certificate master or PhD, those who received a diploma or bachelor's degree were the least at 8.3%.

Table (4.3): Distribution of respondents according to education and training characteristics (N 157)

Variable	Category	No.	Percent
Qualification	Bachelor	50	31.8
	Master	81	51.6
	PhD	26	16.6
Public Health Training	Yes	128	81.5
	No	29	18.5
Level of Public Health Training	Short Course	68	43.3
	Diploma or Bachelor	13	8.3
	Master or PhD	47	29.9
	No Training	29	18.5

4.4 Focus of international agencies' interventions

Table 4.4 presents the focus of IAs interventions towards the health care system in the GS where the five most selected types of intervention were; awareness and health education 78.3% which agrees with Al-khaldi (2012) that awareness and health education comes as number one intervention. Following interventions were, Training and capacity building 72.4%, PHC 67.1%, equipment and constructions 67.1% and finally secondary health care 35.5%. On the other side the focus of IAs interventions was mostly perceived to be on emergency 63.4% rather than development 4.9%. However, those who perceived that interventions were focused on both emergency and development were 31.7%.

Table (4.4): Focus of international agencies interventions towards the HS in the GS

Direction	Category	No.	Percent
Type of Intervention	Awareness and health education	119	78.3%
	Training and capacity building	110	72.4%
	Primary health care	102	67.1%
	Equipment and constructions	102	67.1%
	Secondary Health care	54	35.5%
	Policies and regulation	51	33.6%
	Rehabilitation and Social	40	26.3%
	Diagnostic	33	21.7%
	Research and Development	28	18.4%
	Advocacy	28	18.4%
	Relief	5	3.2%
Focus of financed interventions	Emergency	90	63.4%
	Development	7	4.9%
	Both	45	31.7%

4.5 Health system resilience characteristics

4.5.1 Diversity:

Table 4.5 summarizes the respondents' perspective of the diversity characteristic of the HS in the GS. Where the overall Wt. Mean for this characteristic was 77%, indicating that the HS is relatively characterized with good level of diversity. However, it should be

improved. The table shows that the highest three Wt. means were the current number of heath care facilities is enough to provide appropriate coverage of community health needs, the health care provided to the population during crisis is respectful and the available package of health services is well utilized by the population.

Table (4.5): Distribution of responses about the diversity characteristic

Items	Zero – 3		4 – 7		8 - 10		Weighted (Wt.) Mean
	No.	%	No.	%	No.	%	
The HS does effectively respond to the population health needs	1	.6	87	56.1	67	43.2	81%
The HS delivers services that respond to population primary health care needs and expectations through basic primary care packages	3	1.9	87	55.8	66	42.3	80%
The available package of health services is well utilized by the population	8	5.2	69	44.5	78	50.3	82%
The current number of heath care facilities is enough to provide appropriate coverage of community health needs	1	.6	49	31.4	106	67.9	89%
The HS has sufficient capacity in all health workforce categories	8	5.2	111	71.6	36	23.2	73%
HS secures adequate drugs to meet people's need	15	9.7	120	77.4	20	12.9	68%
Basic health care packages include quality services that effectively respond to sentinel health conditions	2	1.3	107	68.6	47	30.1	76%
The care provided to the population during crisis is respectful	1	.6	76	48.7	79	50.6	83%
Health care facilities are well equipped to respond to the population health care needs	1	.6	105	67.3	50	32.1	77%
The structures of health care facilities including water and sanitation facilities meet quality standards (separated areas for males and females and adapted for persons with disabilities)	8	5.2	89	57.4	59	37.4	78%
The health system funding is enough to support functioning services	27	17.4	108	69.7	20	12.9	65%
Point of services payments (out of Pocket payments) do not lead to putting people in impoverishment	22	14.5	67	44.1	63	41.4	76%
Wt. Mean = 77%							

The three mentioned aspects are tightly connected where if one is strong the other will consequently be strong. It's believed that the number of health care facilities including hospitals and PHC centers is enough for the GS population. Where that includes the facilities managed by the three health care providers, that are also fairly distributed in the five GS governorates. According to one of the interviewed managers at MoH, "*one of the main HS capacities that enabled the system to respond to the population needs is the capacity to distribute PHC centers in all areas including marginalized areas, in addition to the MoH 13 hospitals including the mental health*." However, comparing the number of healthcare facilities between the GS and other neighbors; according to the World Bank document on the project of West Bank and Gaza - Health System Resiliency Strengthening; in the West Bank, there is one MoH clinic for every 6000 inhabitants however in Gaza the ratio is more than double at around one clinic for every 12000 population this in part explained by the HS stratification and the different geography of the areas compared. Comparison of the number of PHCs per 10,000 population shows that Jordan is in a better status with a rate of 7; while in Palestine 1.6. However, Palestine is better of Lebanon at 0.5 (WHO, 2020). This justifies Lebanon experience with the influx of refugees from Syria after the 2011 civil wars, when in 2015 Lebanon had to respond by increasing its PHC capacity to respond to the health needs of the 1.5 million additional population (Kurk et al., 2017). According to the results this is not the case for Gaza.

About the level of utilization, available services are perceived to be highly utilized by the population, Considering the 53% poverty rate (OCHA, 2018); people will head to the covered services. especially that about 78% of the population in Gaza and Westbank are covered by a prepaid health insurance plan, out of which 90% by MoH and UNRWA and it's worth to mention that they significantly overlap (WHO, 2019). One of the interviewed experts mentioned that: "*As long as services are free, they will be utilized*". On the other hand; bed occupancy rates explain the high level of utilization where in 2019 bed occupancy at MoH hospitals was 95%, with overly occupied at Shifa hospital 124% (MoH, 2020)[b]. NGOs beds where occupied by 41.4%, however, in the private sector it was 1.7%(MoH, 2020)[b].

However, the lowest diversity score was for the availability of funds to support the functioning of health services. Variability and lack of funding is the most critical issue facing the HS in the GS to respond to the population health needs.

One of the funding challenges faced by the HS is that the MoF does not allocate specific budget for the MoH. Moreover, all income received through the NHI goes to the MoH where it gets mixed with racecourses from other ministries. In this regard; a senior manager from the MoH stated that "*One of the most crucial challenges we have as HS is the Lack of allocating funds by the MoF for the MoH. There is no planned budget for the MoH in Gaza. MoH does not have independent resources, all MoH incoming resources go to be combined with resources from other ministries. Despite that its vital contribution to the government sector through its work and outputs. Even NHI that include lots of exemptions some people might pay 10 NIS only, however, MoH must deal with those patients without funding*"

The capacity of the HS to secure adequate drugs to meet people's need was scored with a Wt. mean of 68%. When compared to the other diversity capacity items it's ranked as the second lowest after the lack of funding. This is simply explained by the zero stock levels report issued monthly by the MoH central drug store that is the store of the main provider in Gaza. Along 2019 the zero-stock level of essential drugs ranged between 45 and 51.9 (MoH, 2020[a]). And the chronic depletion continues in 2020, with no progress. Drug shortages are of the main routine stresses that threatens the resilience capacity of the HS in Gaza and must be addressed. As explained by an interviewed manager: "*We are providing services from the nothingness, no budget, we are donor dependent and we suffer ongoing shortages of drugs that has it's negative impact on the delivered services*"

Moreover, the third lowest score for diversity was for the system obtaining enough capacity in all health work force categories, it's Wt. mean was 73%. Enough as well as qualified health workforce was set by WHO as one of the six building blocks for a strong health system and is a main pillar for resilience. It was evident through interviews that the shortage of health workforce is threatening the system. The shortages are mainly in doctors particularly subspecialties and in nurses. According to the (MoH, 2020[b]) reported number of health professionals in the GS in 2019, total number of doctors was 2853 and nurses 3617. Meaning that 1.4, 1.8 per 1000 respectively. Compared to the OECD (2.9, 9.6) much lower (World Bank, 2020[a]). However, those numbers might not reflect the actual numbers because methods of calculating and counting might be different. Experience from the field should reflect the truth. In addition to the shortage in numbers. Other health workforce challenges mentioned during the interviewed was that currently the HS is experiencing a gap between the generations of doctors; where those who are experienced are old and

retiring soon, however younger doctors does not have sufficient experience. To elaborate more an expert said that: *"There are two generations of doctors, those who are old and experienced but will be lost when retired and those who are young but lack the experience and skills due to the lack of specialized training opportunities outside of Gaza. Furthermore, it should be added that as a result of the political division there are no new permanent employments since 2006.*"

Liberia had a similar experience, 41% of government health workers were not on the payroll, workforce model was not fit for purpose with gaps in skills as well as equitable distribution in addition to disincentives to performance, workforce exhaustion. However, between 2010 and 2015 there has been an increase of 37% in the percentages of health professionals. But they are still facing inequal distribution in the levels of care and roles (Ministry of Health Government of Liberia, 2015). For Gaza, it's essential to consider the gaps in the number of HW in order to respond to the increasing demand and utilization of healthcare services.

4.5.2 Adaptiveness:

Table 4.6 displays the respondents' perspective of the adaptiveness characteristic of the HS in the GS. The total score for the adaptiveness capacity was 71%; indicating an agreement by the respondents that the HS is adaptive but to an extent. The Wt. means for the adaptiveness items' scores laid between the middle and high; meaning that there is an overall agreement by the respondents that the HS has a relatively highly adaptiveness. The highest Wt. mean was perceived by respondents to be for the availability of mechanisms to, track progress and evaluate health system performance in calm times. However, the same capacity was evaluated to be a bit lower considering the crisis time. Which indicate that still there is area for improving the HS monitoring and evaluation capacity to improve HS adaptiveness. A participant in the qualitative part stated that: "*We have always failed to evaluate our response either in the 3 wars or after GMR. This is one of our weaknesses. For GMR one of the efforts was in systematic discussions and meetings to evaluate the response. But not an audit for cases*."

Table (4.6): Distribution of responses about the adaptiveness characteristic

Items	Zero – 3		4 – 7		8 - 10		Wt. mean
	No.	%	No.	%	No.	%	
Spending of national funds is characterized by flexibility	36	23.8	91	60.3	24	15.9	64%
Spending of international funds is characterized by flexibility	40	25.5	92	58.6	11	7.0	60%
During emergencies funds gets reallocated to respond to the immediate health needs	12	7.8	83	54.2	58	37.9	77%
The current financing mechanisms speed up response during emergencies and in other fast changing situations	12	7.8	115	74.7	27	17.5	70%
The HS financial resources are available	32	21.1	94	61.8	26	17.1	65%
The HS financial resources are adapted to achieve fair and equitable coverage of HW benefits/ salaries	58	37.7	88	57.1	8	5.2	56%
The local district health teams have the capacity to make rapid decision making	21	13.6	93	60.4	40	26.0	71%
The local district health teams are encouraged to make rapid decision making	12	7.7	101	65.2	42	27.1	73%
Local health teams have the capacity to interpret local data	8	5.2	91	58.7	56	36.1	77%
Local health teams have the capacity to interpret local data and local leaders are capable to make quick and sound operational decisions	15	9.7	92	59.7	47	30.5	74%
To promote rapid local decision-making during crisis a Pre-crisis authority delegation agreement are established to enable local decision making in crisis	18	11.8	95	62.1	40	26.1	71%
Mechanisms for, and capacity to, track progress and evaluate health system performance in crisis does exist	10	6.5	87	56.1	58	37.4	77%
Mechanisms for, and capacity to, track progress and evaluate health system performance in calm times does exist	3	1.9	81	52.3	71	45.8	81%
The HS performs rigorous monitoring during crisis and independent evaluation post-crisis	10	6.5	89	57.8	55	35.7	76%
Wt. Mean = 71%							

The capacity to reallocate funds during emergencies to respond to immediate needs was evaluated by respondents to be 77%. This points out that the reallocation of funds is perceived to be flexible but to an extent.

In the context of COVID 19; the humanitarian community prepared a detailed response plan. Humanitarian organizations reallocated amounts of their budgets and raised more donations for the emergency response. In addition to recruiting new funds particularly for COVID 19 (OCHA, 2020). Speaking about the flexibility of donors to make fund reallocations an IA representative said that; "*Our funds got reallocated for COVID 19 response. In addition to additional fund*"

The lowest adaptiveness capacity item was perceived to be for the HS capacity to adapt the financial resources to achieve fair and equitable coverage of HW benefits/ salaries. There is an agreement by respondents that the system failed to adapt financial resources to fairly cover HW benefits. It's one of the most apparent challenges the HS is suffering since 2006. MoH Gaza employees can hardly obtain 40% of their basic salary (OCHA, 2019). There has been initiatives by international donors to facilitate health worker re-integration in Gaza, including a solution to ensure sustainable salary payments (supported by the Swiss Government, EU and others) however, results shows that those initiatives did not achieve their intended outcome (WHO, 2017[b]).

Flexibility of spending national as well as international funds were both perceived to be of the lowest adaptiveness capacity items. At scores of 64% and 60% respectively. The researcher assumes that flexibility of spending is linked to the availability of funds to be spent on the competing needs or priorities, therefore, if funds were available there will be more flexibility in their spending funds. However, funding gaps do exist consequently; flexibility will be influenced.

Another perspective on the flexibility of international funds was revealed by the interviewees, where they think that even donors have their agendas but that does not necessarily mean spending funds is not flexible the relationship is more like a partnership. "*Donors are flexible when you provide justification because it's a partnership*".

4.5.3 Self-Regulation :

Table 4.7 shows a Wt. mean of 79.13% for the self-regulation resilience characteristic of the HS. All Wt. means for this capacity items were more than 70%; meaning that that the HS self-regulation capacity is perceived by the respondents to be relatively high.

The highest self-regulation capacity item was "Role distribution among providers increased the system's potential to expand services during emergencies and promoted collaboration during crises". This indicates respondents' agreement on that the system was capable to regulate itself through the collaboration between the three health care providers to deliver the needed care to the population during crisis.

Table (4.7): Distribution of responses about the self-regulation characteristic

Items	Zero – 3		4 – 7		8 - 10		Wt. mean
	No.	%	No.	%	No.	%	
The government possesses the required capacity to perform the HS leadership role in setting priorities	9	5.9	71	46.7	72	47.4	80.48%
The government possesses the required capacity to lead the implementation of rapid action plans in emergency and crisis situations	6	4.0	75	49.7	70	46.4	80.79%
The government possesses the required capacity to perform the HS leading role to provide timely and accurate information	10	6.6	74	49.0	67	44.4	79.25%
The government possesses the required capacity to lead the HS in community engagement	15	9.9	84	55.6	52	34.4	74.83%
In times of crisis the system can isolate threats and continue delivering needed care	10	6.6	87	57.2	55	36.2	76.54%
Role distribution among providers increased the system's potential to expand services during emergencies and promoted collaboration during crises	4	2.6	70	46.1	78	51.3	82.89%
Wt. Mean = 79 %							

In depth understanding achieved through the qualitative part reflected coordinated emergency response examples that resulted in responding to the emergency simultaneously continuing routine services delivery. This is attributed to the GS unique nature of protracted emergency that resulted in the accumulation of experiences leading to progressive adaptation by the HS.

The most recent examples are GMR that the system has not yet recovered its consequences and the COVID 19 where according to the latest MoH reports after 7 months of the pandemic zero cases were reported inside the Gaza community.

An example of coordination among the different health care providers in emergencies are the coordination activities of the MoH emergency committee. As explained by one of the interviewed health managers: *"In emergency situations a high-level emergency committee is formed; where Local NGOs are represented. Roles and referral pathways are agreed between MoH and other providers. Where MoH receive and save injuries, other NGOs provide services that stops. For GMR; two hospitals were allocated to injuries as they have enough HW capacity to manage injuries. However, other NGOs with less HW are assigned to receive cold or stable cases so that MOH can evacuate. In addition, they contribute with providing maternity services*".

The second highest scored self-regulating capacity was about the government possessing the required capacity to lead the implementation of rapid action plans in emergency and crisis situations. This reflects on the respondents admiring the government role in the implementation of quick responses during crisis. It was evident through interviews that COVID 19 intersectoral response was of the greatest examples of the government capacity to control the seen. The pillars of coordination and role distribution were the MoI, MoH and the MoSA. More explanation of procedures was stated by a local expert: "*The twin to MoH in COVID 19 crisis was the MoI. Without MoI's role; MoH would have never been capable to deliver any response. The main weapon in this crisis is the obligatory quarantine. The success of the quarantine depends on the control over borders. The role of MoH was the development of the guidelines and protocols. However, MoI's strength laid in controlling the borders and other internal procedures. Their role was the most essential to control the seen*".

The lowest scored self-regulation capacity item was 74.83%, for the government possessing the required capacity to lead the HS in community engagement. Being the

lowest indicates an agreement by respondents that if the system is to improve self-regulation community engagement will need to be improved.

However, community engagement's score is classified in the high level. But interviews results explained that there is a discrepancy among the health care providers in this regard. Where NGOs precedes MoH. Where they have established several communication channels with the community to collect their feedback, that was also followed by learning and transformations in service delivery like introducing new services based on demand as well as adding another working shift based on clients' feedback. For MoH there are some early initiatives however did not reach to the level of practice.

Similar Wt. means were reported in evaluating the government leadership capacities in possessing the required capacity to perform the HS leadership role in setting priorities and to lead the implementation of rapid action plans in emergency and crisis situations at 80.48% and 80.79% respectively. The researcher assumes that this an indicator of the perceived high leadership skills obtained by the government and the different providers' acceptance of the government leading the HS performance.

While the self-regulation capacity items are perceived by the respondents to be almost high for the HS in the GS. Those capacities were of the weakest that lead the western African countries to fail to respond to the Ebola epidemic. HS Liberia and Sierra Leone were characterized with weak governance and leadership capacities, they were systems that lack the involvement their communities in decision making. Moreover, lacked the trust between the government and people. Therefore, strengthening government leadership capacity and community involvement are pillars of resilience that are essential to be strengthened (Gostin & Friedman, 2015).

4.5.4 Integration:

Table 4.8 summarizes the respondents' perception of HS integration. The overall Wt. mean was 75.69%. The highest three reported Wt. means were for three integration capacity items that dealt with the coordination among health care providers and referral processes. Including referral of patients from primary to specialized care as soon as they need the specialized care, followed by the coordination of referral to reduce confusion and service delay, and streamlines service delivery for patients and finally the coordination of roles and responsibilities among health care facilities at the different levels with a referral system.

An example of coordinating service delivery during crisis is the agreement between MoH and UNRWA regarding the Non-Communicable Disease (NCD) patients. When in COVID 19 all the NCD patients are managed by UNRWA either they were refugees or non-refugees. This was confirmed through one of the interviews conducted with a senior PHC manager at the MoH: *"In the context of COVID 19; UNRWA is handling the NCD program by receiving non refugee patients in their PHCs*".

Despite the relatively high scores related to the coordination among health care providers and the success of the referral process. In-depth understanding through the interviews identified some gaps that if addressed the resources available at the health care provision would have been better utilized for the benefit of the citizen and the resilience of the HS. Those gaps included the duplication of some services as well as the lack of other services. Lots of PHC services are provided by the MoH, UNRWA and NGOs leading to the citizen shopping between the three options. Like for example the NCD patients who receive care from both MoH and UNRWA. According to a PHC expert "Until now NCD patients files are duplicated between MoH and UNRWA". On the other hand, some services are provided by limited number of providers.

One of the local interviewed experts mentioned the *Magnetic Reasoning Imaging* (MRI) as one of those examples when he said "*The MRI is provided by only three providers the MoH, The Palestinian Red Crescent Society (PRCS) and Red Crescent Society for GS (RCS – GS). Therefore, when a machine is broken this increase the load on the other two. And that did happen recently when the RCS machine was broken for more than 6 months and when it got fixed the PRCS machine got broken"*.

Table (4.8): Distribution of responses about the integration characteristic

Items	Zero – 3		4 – 7		8 - 10		Wt. mean
	No.	%	No.	%	No.	%	
A national emergency plan / emergency coordination system does exist with clear communication plans, leaders and distribution of roles among health and non-health actors	9	6.0	59	39.3	82	54.7	82.89%
In past crisis there were readily available emergency plans	8	5.3	66	43.4	78	51.3	82.02%
In past crisis, intersectoral coordination procedures encouraged fast decision making and implementation, that curbed the effects of emergencies	6	3.9	80	52.6	66	43.4	79.82%
Citizens and communities are engaged in health system planning and decision making	46	30.3	81	53.3	25	16.4	62.06%
Platforms for dialogue with community leaders are well established	32	20.9	91	59.5	30	19.6	66.23%

Continued Table (4.8): Distribution of responses about the integration characteristic

Items	Zero – 3		4 – 7		8 - 10		Wt. mean
	No.	%	No.	%	No.	%	
Regular input about health system functioning from citizens is used to improve emergency planning	49	32.2	87	57.2	16	10.5	59.43%
Two-way communication channels are established with the community to identify routine and emergency needs	38	25.0	96	63.2	18	11.8	62.28%
The HS responsiveness to community needs promotes the trust of the community in the HS	12	7.9	74	48.7	66	43.4	78.51%
The population trusts the health system	20	13.4	105	70.5	24	16.1	67.56%
Health care utilization during crisis is an indicator of the population's trust in the competency of the health system	9	6.1	78	52.7	61	41.2	78.38%
The population accepts the government's messages in crises	7	4.8	79	53.7	61	41.5	78.91%
Recruitment and capacity building activities involve not only clinical staff but also non-clinical and community health workers	9	6.0	90	60.0	51	34.0	76.00%
The HS supports establishment and capacity building of community-based health support mechanisms	23	15.4	93	62.4	33	22.1	68.90%
Health care provision is linked to public health concepts of (disease prevention, prolonging life and the promotion of health through organized society efforts)	6	3.9	82	53.9	64	42.1	79.39%
Health staff in your organization are trained enough in public health	7	4.8	84	57.1	56	38.1	77.78%
Roles and responsibilities among health care facilities at the different levels are coordinated with a referral system	3	2.0	71	46.7	78	51.3	83.11%
Coordination of referral is reducing confusion and service delay, and streamlines service delivery for patients	2	1.3	67	44.4	82	54.3	84.33%
Patients are referred from primary to specialized care as soon as they need the specialized care	3	2.0	53	35.1	95	62.9	86.98%
Referral pathways to specialized care and non-health actors (police, protection…etc.) do exist	3	2.0	85	57.0	61	40.9	79.64%
Health staff are aware of existing referral pathways	7	4.7	77	51.3	66	44.0	79.78%
Health staff use existing referral pathways effectively	12	7.9	86	56.6	54	35.5	75.88%
Wt. Mean 75.69%							

In addition to the duplication of services, referral of patients between the primary and secondary care also has issues to be solved. As mentioned by an MoH senior manager "*When patients get referred to the hospital, they do not go back to the PHC for follow up. Therefore, the referring doctor will not be able to know what happened with the patient"*. This reflects on two gaps, first; at the level of PHC follow up for their patients hence weaknesses in the referral process. Second; by the awareness of patients themselves who need to go back to the PHC for follow up.

The lowest Wt. means were given to the items related to the community engagement in HS management where, 59.43% for the capacity to obtain regular input from citizens about health system functioning in order to improve emergency planning, 62.28% for establishing two-way communication channels with the community to identify routine and emergency needs Lastly, 62.06% for engaging citizens and communities in health system planning and decision making. Those results are consistent with the previous result about the government possessing the needed capacity to lead community engagement item included in the self-regulation characteristic in table 4.6. Which points out that if the HS is to improve the integration capacity will need to exert more efforts to improve community participation.

Liberia could be copied as an example of community involvement; when succeeded to improve response to Ebola epidemic after they identified ways and implemented mechanisms to improve community participation in dealing with the crisis. That was through enlisting local leaders to contribute to the surveillance of the disease, community mobilization and other control measures. What could be concluded is that without strengthening the capacities at the community level, investments in physical and technical aspects of health emergency and preparedness will not be feasible (Alonge et al., 2019).

In between the highest and lowest Wt. mean ranges; 79.39% Wt. mean was reported for linking health care provision with public health concepts of (disease prevention, prolonging life and the promotion of health through organized society efforts). According to the followed resilience framework in this study; linking health care provision with public health is an important aspect of resilience health system. This score indicates that the links with public health concepts are established, however, might still need to be improved. An interviewee added that "*The HS succeeded in the prevention of communicable disease through vaccination. However, now the need is to focus on the NCD*".

This result point to the need to improve focus on supporting programs that aims to promote public health and to contribute to the prevention of NCDs. As they represent a main financial burden in Palestine. Where NCDs treatment is costly and require more interaction between the patient and the HS (World Bank, 2015).

4.5.5 Awareness:

Table 4.9 presented the respondents' evaluation of the HS's awareness characteristic. The Wt. means results for the awareness was 79.08%, reflecting high scores of more than 70% for all items of this characteristic. The highest Wt. mean was for the awareness item related to the existence of functioning civil registration and vital statistics systems, followed by the identification of focal Points/ key persons across sectors are identified and immediately accessible for communication, decision making, and sounding alarms. However, the lowest Wt. mean was 72.04% for the availability of systems to make accurate assessments of the impact of crisis and rate of return to baseline after shock.

Table (4.9): Distribution of responses about awareness characteristic

Items	Zero – 3		4 – 7		8 - 10		Wt. mean
	No.	%	No.	%	No.	%	
The HS in GS possess the needed capacity to identify risks and population status through a rigorous information system that provides timely and relevant information	5	3.3	84	56.0	61	40.7	79.11%
The HS in GS has a reliable mapping system of all health facilities including NGOs and private sector	8	5.4	59	40.1	80	54.4	82.99%
A routine monitoring system does exist and is utilized to detect services fluctuations	7	4.7	87	58.4	55	36.9	77.40%
Systems are available to make accurate assessments of the impact of crisis and rate of return to baseline after shock	16	10.7	93	62.4	40	26.8	72.04%
An active routine surveillance system exists to detect disease threats and trigger mitigation mechanisms	8	5.3	80	53.3	62	41.3	78.67%
The HS possess adequate research and development capacity to perform data collection, analysis, reporting and dissemination	11	7.4	100	67.6	37	25.0	72.52%
A Functioning civil registration and vital statistics systems exist	6	4.0	53	35.6	90	60.4	85.46%
Health actors possess basic knowledge of population demographics and use it to estimate health threats and trends as well as to understand crisis impact	5	3.3	67	44.7	78	52.0	82.89%
Focal Points/ key persons across sectors are identified and immediately accessible for communication, decision making, and sounding alarms	1	.7	67	44.7	82	54.7	84.67%
The HS current environment is an environment of free speech and freedom of press	13	8.7	95	63.3	42	28.0	73.11%
Functioning, open platforms and technology for timely communication (hotlines, community committees, social media) are available	4	2.6	76	50.3	71	47.0	81.46%
Communities are encouraged to notify and sound alarms	11	7.3	75	49.7	65	43.0	78.59%
Wt. Mean = 79.08%							

Approximately a similar Wt. mean 72.52%was reported for "The HS possess adequate research and development capacity to perform data collection, analysis, reporting and dissemination. In depth understanding through interviews showed that investment in research to conduct evaluation studies for the emergency responses and other interventions are needed. Moreover, studying the feedback of the citizens is essential to involve them in decision making. Stressing on the need to conduct monitoring for emergency response and evaluation after crisis ends; An in depth interviewed director at MoH said: "*The COVID 19 experience seems to be successful. However, there is a need to assess the response to create learning and to avoid illusions that does not exist*".

One of the main systematic weaknesses that impacted the Ebola affected countries to respond affectively was the inadequate investment in information systems, lack of monitoring and evaluation mechanisms and weak surveillance systems that are needed to monitor changes in the public health. In addition to mechanisms to early detect risks and health hazard. The need to invest information systems for better HS awareness was of the main lessons learned from the Ebola crisis in Africa (Moon et al. 2015). For the HS in the GS there is a need to improve the awareness capacity considering the epidemiological transition and the chronic emergency nature of the system where mass causality scenes are common. There are great examples that could be copied to improve this capacity like the Alabama Medicaid Electronic Health Record. That includes health records for every single patient of the 700,000 Alabama's Medicaid's patients. The system provides full information on patient's doctors, diagnosis, and drug needs that are accessible at the click of a button. Those could be used to look at patient population dynamics early before the occurrence of a disaster. This will help HS governors to identify the locations of fragile patients, chronic patients as well as their special needs in normal and crisis times. Upon which decisions could be taken on the appropriate interventions (Institute of Medicine (US), 2010).

4.6 Contribution of IAS to HS resilience characteristics in the GS

4.6.1 Contribution of IAs to supporting the diversity characteristic:

Table 4.10 highlights the contribution of IAs to supporting the diversity characteristic of the health system in the GS. Respondents overall perception about the contribution of IA's to the diversity characteristic was 61%.

Table (4.10): Contribution of IAs to supporting the diversity characteristic

Item	Zero – 39.9%		40% - 70%		More than 70%		Wt. mean
	No.	%	No.	%	No.	%	
The HS does Effectively respond to the population health needs	23	17.6	85	64.9	23	17.6	67%
The HS delivers services that respond to population primary health care needs and expectations through basic primary care packages	29	22.5	84	65.1	16	12.4	63%
The available package of health services is well utilized by the population	29	26.9	61	56.5	18	16.7	63%
The current number of heath care facilities is enough to provide appropriate coverage of community health needs	31	26.3	60	50.8	27	22.9	66%
The HS has sufficient capacity in all health workforce categories	66	57.4	38	33.0	11	9.6	51%
HS secures adequate drugs to meet people's need	44	35.8	64	52.0	15	12.2	59%
Basic health care packages include quality services that effectively respond to sentinel health conditions	39	31.5	61	49.2	24	19.4	63%
The care provided to the population during crisis is competent and respectful	38	32.2	52	44.1	28	23.7	64%
Health care facilities are well equipped to respond to the population health care needs	36	30.3	62	52.1	21	17.6	62%
The structures of health care facilities including water and sanitation facilities meet quality standards (separated areas for males and females and adapted for persons with disabilities)	41	34.7	50	42.4	27	22.9	63%
The health system funding is enough to support functioning services	46	35.7	69	53.5	14	10.9	58%
Point of services payments (out of Pocket payments) do not lead to putting people in impoverishment	65	57.5	33	29.2	15	13.3	52%
Wt. Mean = 61%							

The highest contribution of IAs to the diversity capacity items was perceived by respondents to be for the system to effectively respond to the population health needs. Where this lies as one of the main outcomes of the HS (WHO, 2007). In addition, it comes in line with Hammad (2013) result related to the contribution of Turkish aids to improving the level of governmental services with a Wt. score of 56%.

Interviews with IAs revealed that their contribution to the HS is about filling gaps so the system can keep standing. As stated by an IA manager "*We are working as a bandage, where there are gaps, we fill. We try to support the system to stand".* Another IA expert said that "*The demand is far beyond what we support, and we cannot support everything. Therefore, we focus on the priorities*". For the year 2020, 2.4 million people were identified by the humanitarian actors to be in need for humanitarian assistance, most of them from the GS. Planned health interventions aimed to target those affected by the limited availability and accessibility of essential life-saving health services, maternal and child health services, reproductive health services, and health care for the elderly, as well as reduced nutrition. An amount of 348 million USD was needed out of which (76%) for the GS. 37,481,920 USD for health and nutrition in the oPt. However, funding shortages does exist were until September 2020, only 27% were secured (Health Cluster oPt, 2020).

The second highest score for the contribution of IAs to resilience was to health facilities number to be sufficient to provide appropriate coverage of community health needs this is consistent with Hammad (2013).Where he provided that between 2007 and 2013, international donations to support building the infrastructure of the governmental health sector was 274,869,369 Israeli Shekels (78,534,105.42 US dollar).

The lowest IAs' contribution was to support the diversity capacity item related to the HS obtaining sufficient capacity in all health workforce categories. There is an agreement by the respondents that support to this item is in the middle level. Indicating that more attention is needed to this preparedness aspect of resilience. For the preparedness phase insuring that the HS obtains sufficient number of qualified health workers who are geographically well distributed is of great value for the system to respond to any sudden increase in demand (WHO 2020). Most of IAs interviewed are contributing to the capacity building of MoH employees through several types of medical training and education programs, either inside or outside Gaza, including fellowships, deployments, master programs, on the job training, etc. This comes in line with Al-khaldi (2012) and Khader (2015).However, it's essential to support this capacity item, not only with training and capacity building activities but also with efforts to increase the numbers health professionals officially enrolled in the HS.

4.6.2 Contribution of IAs to supporting the adaptiveness characteristic of the HS:

Table 4.11 shows the respondents' feedback on the contribution of IAs to the adaptiveness characteristic of the HS in the GS. The reported Wt. mean was quiet low at **58%**.

Table (4.11): Contribution of IAs to supporting the adaptiveness characteristic

Item	Zero – 39.9%		40% - 70%		More than 70%		Wt. mean
	No.	%	No.	%	No.	%	
Spending of national funds is characterized by flexibility	55	50.0	48	43.6	7	6.4	52%
Spending of international funds is characterized by flexibility	38	33.9	51	45.5	23	20.5	62%
During emergencies funds gets reallocated to respond to the immediate health needs	23	20.0	58	50.4	34	29.6	70%
The current financing mechanisms speed up response during emergencies and in other fast changing situations	25	21.4	73	62.4	19	16.2	65%
The HS financial resources are available	44	37.3	66	55.9	8	6.8	56%
The HS financial resources are adapted to achieve fair and equitable coverage of HW benefits/ salaries	62	53.9	42	36.5	11	9.6	52%
The local district health teams have the capacity to make rapid decision making	52	47.3	47	42.7	11	10.0	54%
The local district health teams are encouraged to make rapid decision making	55	50.9	42	38.9	11	10.2	53%
Local health teams have the capacity to interpret local data	49	45.4	50	46.3	9	8.3	54%
Local health teams have the capacity to interpret local data and local leaders are capable to make quick and sound operational decisions	51	47.2	43	39.8	14	13.0	55%
To promote rapid local decision-making during crisis a Pre-crisis authority delegation agreement are established to enable local decision making in crisis	54	50.0	43	39.8	11	10.2	53%
Mechanisms for, and capacity to, track progress and evaluate health system performance in crisis	41	36.9	45	40.5	25	22.5	62%
Mechanisms for, and capacity to, track progress and evaluate health system performance in calm times does exist	42	38.2	48	43.6	20	18.2	52%
The HS performs rigorous monitoring during crisis and independent evaluation post-crisis	46	41.8	41	37.3	23	20.9	62%
Wt. Mean = 58%							

The highest Wt. mean of IAs contribution to adaptiveness was to the item related to the reallocation of funds to respond to the immediate health needs. This is consistent with the protracted emergency nature of the GS and the nature of IAs intervention in Gaza that are concentrated on emergency rather than developmental interventions (OCHA, 2018).

The lowest score reported under the adaptiveness capacity items was for IAs contribution to the fair and equitable coverage of HW benefits/ salaries. Referring to one of the most challenging issues facing the HS in Gaza to respond to health needs that is the issue of salaries cut by the PA to the civil servants in Gaza. A local expert said that: *"Donors do not support paying neither incentives nor running cost. Considering the current circumstances when the basic salary is not paid, therefore, no possibility of using the human capacity in another shift. If there was a possibility for overtime operating theaters and daily care would have been utilized in night shifts. This would contribute to reduce the burden of waiting lists. However, MoH cannot do this because MoH cannot pay the incentives. Due to the no contact policy with the government, sometimes donors make an agreement with a third party. Instead of directly signing contracts with the MoH. As an example, one of the IAs supported the employment of 30 staff in a place. Through an agreement with another local organization where this organization is responsible for the employment and payment to this staff. By that agreement the local NGOs receive the fund and pay for the employees."*

4.6.3 Contribution of IAs to supporting the self-regulation characteristic of the HS:

Table 4.12 represents the respondents' view of the contribution of IAs' to the self-regulation characteristic of the HS. The respondents' evaluation of IAs contribution was scored low with a Wt. mean of 59.03%. The highest contribution to the self-regulation capacity item was reported for **"**Role distribution among providers increased the system's potential to expand services during emergencies and promoted collaboration during crises". This is reflected by the existence of the body responsible for coordination and partnership; the health cluster chaired by WHO and co-chaired by MoH. The health cluster is the active coordination body for the health sector. On the lower contributions side; the lowest Wt. means of IAs contributions were reported for "The government possesses the required capacity to perform the HS leadership role in setting priorities" and "The government possesses the required capacity to lead the HS in community engagement". Those self- regulation capacity items are related to the governance building block of the HS. When Al-khaldi (2012) assessed the IF contribution to governance and transparency

he had different result of 71.41% contribution by IF to the governance and transparency aspect of health system. However, this might be explained by that the targeted providers in this study include not only NGOs but also MoH and UNRWA. It's worth to mention that this result is consistent with Khader (2015).

Table (4.12): Contribution of IAs to supporting the self-regulation characteristic

Self-regulation	Zero – 39.9%		40% - 70%		More than 70%		Wt. mean
	No.	%	No.	%	No.	%	
The government possesses the required capacity to perform the HS leadership role in setting priorities	48	42.9	47	42.0	17	15.2	57.44%
The government possesses the required capacity to lead the implementation of rapid action plans in emergency and crisis situations	43	39.1	46	41.8	21	19.1	60.00%
The government possesses the required capacity to perform the HS leading role to provide timely and accurate information	44	41.5	42	39.6	20	18.9	59.12%
The government possesses the required capacity to lead the HS in community engagement	45	42.1	46	43.0	16	15.0	57.63%
In times of crisis the system can isolate threats and continue delivering needed care	44	40.0	50	45.5	16	14.5	58.18%
Role distribution among providers increased the system's potential to expand services during emergencies and promoted collaboration during crises	40	36.4	46	41.8	24	21.8	61.82%
Wt. Mean = 59%							

The contribution of IAs to supporting the self-regulation capacity was in depth explored in the qualitative part. Where the perspective was that it's about the MoH as the main health care provider and the main ambarella to the HS to decide what are the HS priorities that IAs needs to focus on. It was a consistent challenge for interviewed IAs to identify the priorities with MoH. It was mentioned by an IA expert that "*MoH is good* at *hunting opportunities rather than prior identification of their priorities*" another added "*It's a reactive system rather than strategic planning*".

It was also reported that the gap exists due to the in mature experiences by the high-level officials, who also get replaced before obtaining the required skills. Therefore, it must be a priority to support building he technical and financial capacity of high level MoH officials in governance. In addition to the development of a strategic plan that address the reals

needs, followed by operational plan and a monitoring and evaluation plan.This comes in line with Swanson et al. 2015 Call for strengthening the leadership capacity in low- and middle-income countries. Through the improvement of local organizations' leader's capacity to obtain a vision and to be courageous, to obtain the skills to network with others, to enhance shared learning and cooperate with external donors and experts as much as needed. Which will create and build learning organizations (Swanson et al., 2015).

4.6.4 Contribution of IAs to supporting the integration characteristic of the HS in the GS:

Table 4.13 displays the respondents' perception of the IAs contribution to the integration characteristic of the HS. The resulted Wt. mean was 56.57% in the middle of the scale. Highest reported IAs contribution to integration was to linking Health care provision to public health concepts of (disease prevention, prolonging life and the promotion of health through organized society efforts followed by contribution to the public health training of health staff.

In addition, a medium level contribution was reported for; the existence of national emergency plan and emergency coordination system with clear communication plans, leaders and distribution of roles among health and non-health actors. The lowest IAs' contribution to integration capacity was reported for community engagement items including; "Regular input about health system functioning from citizens is used to improve emergency planning**"** and **"**Two-way communication channels are established with the community to identify routine and emergency needs".

As per one of the IAs' directors, Community engagement is believed to be the role of the health care providers rather than the IAs. **"***It's the responsibility of the service providers rather than IAs*". Moreover, Proximate Wt. means of IAs contributions to integration were reported between 53.14% and 53.40% to engaging citizens and communities in health system planning and decision-making platforms for dialogue with community leaders are well established and Referral pathways to specialized care and non-health actors (police, protection…etc.) do exist. According to an interviewed health care provider, "*community engagement used to be supported by Arab donors who supported the establishment of societies for hospitals like (Shifa hospital friends) where those societies were active in the community engagement and communication. However, now due to political division Arab donors are not interested in Gaza".*

Table (4.13): Contribution of IAs to supporting the integration characteristic

Item	Zero–39.9%		40%-70%		More than70%		Wt. mean
	No.	%	No.	%	No.	%	
A national emergency plan / emergency coordination system does exist with clear communication plans, leaders and distribution of roles among health and non-health actors	38	35.2	45	41.7	25	23.1	62.65%
In past crisis there were readily available emergency plans	38	35.5	51	47.7	18	16.8	60.44%
In past crisis, intersectoral coordination procedures encouraged fast decision making and implementation, that curbed the effects of emergencies	40	37.0	45	41.7	23	21.3	61.42%
Citizens and communities are engaged in health system planning and decision making	52	50.5	40	38.8	11	10.7	53.40%
Platforms for dialogue with community leaders are well established	54	53.5	34	33.7	13	12.9	53.14%
Regular input about health system functioning from citizens is used to improve emergency planning	58	56.9	35	34.3	9	8.8	50.65%
Two-way communication channels are established with the community to identify routine and emergency needs	54	54.0	37	37.0	9	9.0	51.67%
The HS responsiveness to community needs promotes the trust of the community in the HS	49	48.5	37	36.6	15	14.9	55.45%
The population trusts the health system	45	45.0	42	42.0	13	13.0	56.00%
Health care utilization during crisis is an indicator of the population's trust in the competency of the health system	47	46.5	41	40.6	13	12.9	55.45%
The population accepts the government's messages in crises	47	46.1	43	42.2	12	11.8	55.23%
Recruitment and capacity building activities involve not only clinical staff but also non-clinical and community health workers	50	48.1	42	40.4	12	11.5	54.49%
The HS supports establishment and capacity building of community-based health support mechanisms	51	49.0	44	42.3	9	8.7	53.21%
Health care provision is linked to public health concepts of (disease prevention, prolonging life and the promotion of health through organized society efforts)	33	30.3	51	46.8	25	22.9	64.22%
Health staff in your organization are trained enough in public health	38	34.2	48	43.2	25	22.5	62.76%
Roles and responsibilities among health care facilities at the different levels are coordinated with a referral system	42	40.4	44	42.3	18	17.3	58.97%
Coordination of referral is reducing confusion and service delay, and streamlines service delivery for patients	47	46.1	42	41.2	13	12.7	55.56%
Patients are referred from primary to specialized care as soon as they need the specialized care	43	43.9	38	38.8	17	17.3	57.82%
Referral pathways to specialized care and non-health actors (police, protection…etc.) do exist	52	55.3	28	29.8	14	14.9	53.19%
Health staff are aware of existing referral pathways	47	47.5	38	38.4	14	14.1	55.56%
Health staff use existing referral pathways effectively	50	49.5	38	37.6	13	12.9	54.46%
Wt. Mean = 56.57%							

4.6.5 Contribution of IAs to supporting the awareness characteristic of the HS:

The contribution of IAs towards the awareness characteristic of the HS is displayed in table 4.14 The overall score for this capacity was evaluated by respondents to be 58.86%.

Table (4.14): Contribution of IAs to supporting the awareness characteristic

Item	Zero – 39.9%		40% - 70%		More than 70%		Wt. mean
	No.	%	No.	%	No.	%	
The HS in GS possess the needed capacity to identify risks and population status through a rigorous information system that provides timely and relevant information	35	33.0	51	48.1	20	18.9	61.9%
The HS in GS has a reliable mapping system of all health facilities including NGOs and private sector	43	41.7	41	39.8	19	18.4	58.9%
A routine monitoring system does exist and is utilized to detect services fluctuations	48	48.5	36	36.4	15	15.2	55.6%
Systems are available to make accurate assessments of the impact of crisis and rate of return to baseline after shock	47	46.1	37	36.3	18	17.6	57.2%
An active routine surveillance system exists to detect disease threats and trigger mitigation mechanisms	35	33.0	46	43.4	25	23.6	63.5%
The HS possess adequate research and development capacity to perform data collection, analysis, reporting and dissemination	43	42.2	43	42.2	16	15.7	57.8%
A Functioning civil registration and vital statistics systems exist	42	43.8	38	39.6	16	16.7	57.6%
Health actors possess basic knowledge of population demographics and use it to estimate health threats and trends as well as to understand crisis impact	45	43.7	37	35.9	21	20.4	58.9%
Focal Points/ key persons across sectors are identified and immediately accessible for communication, decision making, and sounding alarms	42	40.4	42	40.4	20	19.2	59.6%
The HS current environment is an environment of free speech and freedom of press	48	48.5	32	32.3	19	19.2	56.9%
Functioning, open platforms and technology for timely communication (hotlines, community committees, social media) are available	40	38.1	43	41.0	22	21.0	61.0%
Communities are encouraged to notify and sound alarms	44	44.0	42	42.0	14	14.0	56.7%
Wt. Mean = 58.86%							

The highest contribution to HS awareness by IAs was perceived by respondents to be for the existence of an active routine surveillance system to detect disease threats and trigger mitigation mechanisms, followed by the contribution to the HS to possess the needed capacity to identify risks and population status through a rigorous information system that provides timely and relevant information. This comes under the IAs role to strengthening HS named as creating public goods like surveillance of diseases, developing standards, creation of data and knowledge. However, this area needs to be improved. The lowest contributions to HS awareness were for supporting the existence of routine monitoring system that is utilized to detect services fluctuations. The need for strengthening health information system and better information for decision was a consistent comment by most of interviewees. However, it's a large investment that need specialized organizations with adequate technical and financial capacity to support it. WHO is the leading organization supporting Health Information Systems. Of the most recent advancement in this regard was the Health Resources and Services Availability Monitoring System (HeRAMS) dashboard providing instant and updated information. Support was through training of staff and building the Information Technology (IT) infrastructure.

4.7 Final score of the HS resilience and the contribution of IAs to the system resilience

Table 4.15 showed that the total HS resilience score was perceived by respondents to be 75.9%, while the perception of respondents about IAs' contribution to the HS resilience was 58.4%. Therefore, the health care system in the GS is resilient to an extent with inadequate level of contribution by IAs. However, resilience needs to be strengthened with more contribution and support from IAs.

Table (4.15): Summary of the total score of the HS resilience and the contribution of IAs to the HS resilience

Capacity	Resilience Score	Contribution of IAs to HS Resilience
Diversity	77.3%	61%
Adaptiveness	71.0%	58%
Self-regulation	79.1%	59%
Integration	75.69%	56.57%
Awareness	79%	58.86%
Total score	**75.9%**	**58.4%**

4.8 Differences in perceptions about health care system resilience and contribution of IAs

4.8.1 Personal characteristics :

As described in table 4.16, the statistical differences were studied between the personal characteristics and the overall scores of the HS resilience. Males had a statistically significant higher perceptions of the HS resilience than women. (P= .023). This result was not consistent with Al-khaldi (2012) or Khader (2015), whom both concluded that there are no statistically significant differences due to gender.

Table (4.16): Analysis of the statistical differences between the overall HS resilience scores and the personal characteristics

Variable		N	Mean	SD	Factor	Value	P-Value
HS resilience score	Male	91	150.75	20.174	t	2.309	.023
	Female	25	140.32	19.321			
	Doctor	29	140.17	19.043	F	2.865	.040
	Paramedical	32	147.81	19.811			
	Support services	12	150.58	19.407			
	Administrative	43	154.05	20.619			

Differences in the evaluation of the HS resilience were statistically significant between the profession groups. A Bonferroni post hoc test revealed that the administrative group had a higher evaluation of the HS resilience than doctors, Paramedical and Support services by mean differences of 13.874, 6.234, 3.463, respectively. The significant difference was between the administrative and doctor groups. This might be explained by that the administrative staff are more involved with the managerial aspects of the HS rather than provision of services. However, overall differences were not so high.

Table 4.17 Compared the evaluation of males and females to the contribution of IAs to resilience; males provided higher scores. However, differences were not statistically significant. This result agrees with Al-Khaldi (2012) and Khader (2015), whom both concluded that there are no statistically significant differences due to gender.

Table (4.17): Analysis of the statistical differences between the overall IAs contribution to HS resilience scores and personal characteristics

Variable		N	Mean	SD	Factor	Value	P-Value
Gender and IAs' contribution to HS resilience score	Male	53	113.53	37.796	t	.960	.347
	Female	14	103.79	32.610			
Profession and IAs' contribution to HS resilience score	Doctor	18	104.50	36.869	F	0.372	0.774
	Paramedical	13	109.69	29.632			
	Support services	7	116.71	26.856			
	Administrative	29	115.38	42.103			

There were no statistically significant differences between the Profession groups in their evaluation of IA contribution to HS resilience. It was noted that doctors provided the lowest score.

4.8.2 Job characteristics:

According to table 4.18 First to middle level management group overall evaluation score of HS resilience was a little higher than the score provided by top level management. However, that difference was not statistically significant. This is an indicator of convergence of views or perceptions among managerial staff. This conclusion is consistent with Khader (2015), where job title had no statistically significant difference related to job title.

Approximate scores were given by the three health sectors for the HS resilience. However, UNRWA provided a little lower mean score. That reflects on the homogeneity of the health care providers perspective of the HS. In addition, represents similar influence of the Gaza context on the three sectors of health work. Differences were not statistically significant. Hence, this result is consistent with Khader (2015) who also reached to a conclusion that there were no statistical differences related to sector of work and respondents' evaluation of WHO's role in strengthening the HS in the GS.

Table (4.18): Analysis of the statistical differences between the overall HS resilience scores and Job Characteristics

Variable		N	Mean	SD	Factor	Value	P-Value
Job title and HS resilience	Top level management	19	145.11	21.718	t	-.370	.458
	First to middle level management	97	149.16	20.148			
Sector of work and HS resilience	MoH	92	149.93	19.885	F	2.068	.131
	UNRWA	10	136.30	26.145			
	NGO	14	147.79	17.321			
Field of work and HS resilience	Central management	46	149.17	20.814	F	.924	.400
	Primary health care	37	145.00	21.511			
	Hospitals	33	151.48	18.371			
Nature of work and HS resilience	Administrative	55	154.45	20.162	F	6.721	.002
	Technical	3	122.33	15.275			
	Both	58	144.21	18.839			

Between the three studied fields of work there was no statistically significant difference in the evaluation of the overall HS resilience score. This reflects an agreement among the different fields of the health care provision in addition it's an indicator of the integration of this system. Khader (2015) results are consistent with this conclusion.

There was a statistically significant difference between Nature of work groups in their evaluation of the HS resilience. The administrative group responded with the highest score. A Bonferroni post hoc test revealed that the administrative participants responses were statistically significantly higher than technical and participants doing both technical and administrative work, mean differences were 32.121, 10.248, respectively.

According to table 4.19 first to middle level management group overall evaluation score of IAs contribution to HS resilience was a little higher than the score provided by top level management. However, that difference was not statistically significant. This is an indicator of convergence of views or perceptions among managerial staff. This conclusion is consistent with Khader (2015), where there was no statistically significant difference related to job title and respondents' evaluation of WHO's role in strengthening the HS in the GS.

Table (4.19): Analysis of the statistical differences between the overall HS resilience scores and Job Characteristics

Variable	Job title	N	Mean	SD	Factor	value	P-Value
Job title and IAs' contribution to HS resilience	Top level management	16	108.13	43.691	t	-.754	.715
	First to middle level management	51	112.55	34.724			
Area of work and IAs' contribution to HS resilience	North	2	108.50	34.648	F	0.402	.807
	Gaza	49	109.33	36.146			
	Middle	3	113.33	36.143			
	Khanyounis	6	109.67	35.540			
	Rafah	7	128.29	48.417			
Sector of work and IAs' contribution to HS resilience	MoH	47	108.26	35.024	F	.611	.546
	UNRWA	8	120.38	43.964			
	NGOs	12	118.25	39.921			
Field of work and IAs' contribution to HS resilience	Central management	29	102.45	34.748	F	1.907	.157
	Primary health care	23	122.17	36.820			
	Hospitals	15	112.60	38.277			
Nature of work and IAs' contribution to HS resilience	Administrative	34	110.24	39.968	F	0.439	.646
	Technical	2	135.50	9.192			
	Both	31	111.32	34.230			

There were no statistically significant differences among the areas of work in their evaluation of the IAs' contribution to HS resilience. However, Rafah's area provided the highest score.

The respondents from the three studied sectors of work agree that the level of IAs' contribution to HS was in the middle level. It's worth to mention that, the MoH evaluation was a little lower. However, this difference is not statistically significant. That is also consistent with the above result related to the sector of work and the overall HS resilience score.

There are differences between the three fields of work in their evaluation to the contribution of IAs' to the HS resilience. However, as shown in table 4.19 differences are not statistically significant. Again, this is consistent with Khader (2015) as there was no statistically significant differences attributed to the field of work. There were no statistically significant differences between the three studied work groups in their evaluation to the IAs' contribution to the HS. Both results related to the nature of work are consistent with Khader (2015).

4.9 Strengths and Weaknesses of IAs contributions to the HS in the GS

The most prevailing strength of IAs is their strong capacity to mobilize financial resources to fund the functionality of the HS. However, they are criticized for having their hidden politically influenced agendas that might not all the time be in line with the best national interests or priorities. Invested funds are characterized with conditionality in terms of targeted priorities, places and beneficiary groups. IAs are perceived to be imposing some rules and restrictions that constricts the spending or the best utilization of the available funds. As an example, a local expert mentioned "*Sometimes, their contributions are unrealistic and irrelevant to the situation on the ground. Like if they have experience in another country like Latin America or Syria and try to or implement it in Gaza".* Those conditions for funding create gaps between the national development agendas and the implementation of IAs programs on the ground. Moreover, other critical factors that influence the directions of funding is the policy announced by multiple donors named as "No contact policy" with the local authorities in Gaza. Which affects the equity of distributing funds and benefiting of those funds by the population in Gaza. Furthermore, despite the large amounts of investments poured they are instable, unpredictable and lacks the sustainability factor.

In terms of service delivery, IAs investments contributed to the coverage of HS expenditures through their support to the provision of drugs, medical consumables and equipment as well as their continuous support to the vaccinations. Thus, protected the HS from collapse. However, respondents pointed to the need to enhance support to the PHC services that is perceived to be in adequate. Focus is believed to be on specific services while other services are neglected. Moreover, IAs contributions are not perceived to be equally distributed among geographical areas.

On the other hand; considering the protracted emergency in the GS, IAs succeeded to support the HS to immediately respond to emergency. However, of the identified weaknesses was the inadequate support to the emergency preparedness that is an important aspect of resilience. This led to the conclusion that contributions are directed towards emergency rather than development.

For the human resources aspect of the HS. IAs interventions have hugely supported the training and capacity building of health staff, particularly for needed specialties; through the deployment of medical training missions into Gaza. However, opportunities to train

staff outside of Gaza to obtain new experiences is not enough. Moreover, there is a lack in support to the training of administrative staff as well as to the HS leaders at health care organizations. Which are both important for the strengthening of HS resilience.

Regarding the administrative and organizational capacity of IAs they were described to be strong organizations equipped with qualified and well-trained staff. In addition, procurement systems were perceived to be strong and compatible with the MoH procurement system. In addition, IAs are respected for being international. IAs has contributed to advocate for the rights to health of the Palestinian people. WHO and other IAs through their interventions support the system to overcome challenges caused by the occupation and reduce the impact of blockade, at the same time transfer the suffering of Gaza to the world.

IAs are criticized for having large administrative costs. Moreover, IAs follow strong monitoring and evaluation systems that contributed to strengthening the local health organizations research, monitoring, evaluation and documentation capacity. However, there interventions are project based. Therefore, once the project is ended there are no follow up or monitoring after the implementation of the project is completed.

IAs contributions lacks the sustainability aspect. Where, most of the interviewees when asked about what would happen if IAs stopped supporting the HS in the GS replied that it will most likely collapse with only one sustaining resource that is the human resource. It's worth to mention here that the HS succeeded to deliver advanced as well as high quality health services like interventional cardiology that might not be delivered in the neighboring countries. However, it's totally dependent on the availability of donated medical consumables. Therefore, if IAs stopped such services consequently will stop. This was confirmed by local expert "*For COVID 19 response, if we know an information that the government secured only 6% of the needs for MoH, and the remaining 96% were covered by partners and donors. This will mean that the consequence of a stop or a drawback in international support will mean that services will be deeply affected. Some services will stop others will deteriorate to be provided in a very primitive methods as it was provided in the 80s. The reason for that deterioration will be the severe shortage in resource and materials. You will find a well-equipped Intensive Care Unit (ICU) cadre who cannot deliver the needed care. We have very strong interventional cardiology cadre capable to implement superior interventions like Percutaneous coronary intervention (PCI) and stinting that are not operated in WB or in other neighboring countries. This is a well-*

trained cadre. This service is based on consumables and will not provide any service without the guide wire or stint. The professor will stand arm folded because he can do nothing without the consumables. Patients will die waiting for resources and now we have examples of cases died waiting for Cath, other wait for open heart surgeries. The cadre exist but the patients died waiting their turn on the list because of the shortage of resources.

Another perspective about the sustainability of the HS if IAs support was stopped was reflected by an MoH expert who thought that the system will sustain mentioning that "*If IAs stopped supporting the HS in the GS the system will sustain, employees will continue to deliver, we are already a fragile with their support. Employees receive 40% despite that they deliver their duty. Palestinian people used to suffer, we used to loose we will still standing The international fund now is not making a strong system but supporting us with one thing to alleviate people suffering with securing drugs and other medical supplies that are not enough".*

Chapter Five

Conclusion and Recommendations

5.1 Conclusion

The Palestinian HS and particularly in the GS is performing under harsh circumstances of political division, occupation, economic depression and protracted emergency.

Circumstances that had their negative impact on the outcomes of the system. Which increased the HS's dependency on donations in an environment of which international agencies are of the main factors contributing to the articulation of this system. The question on whether the current interventions supported by the IAs are strengthening the resilience of the systems is always a legitimate. This study was conducted to assess the resilience of the Palestinian HS in the GS and to ascertain the degree to which the IAs are contributing to this resilience, to study the personal and job variations among health care providers in their perspectives about the resilience of the HS and the contribution of IA's to HS resilience, to identify the main strengths and weakness of the IAs' contributions to supporting the resilience of health system in the GS in order to identify answers for how to best utilize IAs contributions towards a more resilient HS in the GS.

For the purpose of this study a triangulation of quantitative and qualitative tools was utilized. Where a questionnaire was designed to assess five characteristics of HS resilience and to measure the contribution of IAs towards each characteristic both from the perspective of managerial staff at the main health care provision organizations. In addition, key informant interviews were conducted to achieve in depth understanding of the results.

The study found that most of management staff at the studied health care provision organizations were males. More than half were older than 45 years old. Most of them had more than 16 years of experience. The majority were from the MoH, drawn from first to middle levels of management and work in the Gaza governorate. Almost more than half of respondents' work nature was a mix of administrative and technical. Moreover, the majority had postgraduate certificates either master or PhD. In addition, the majority have ever received a kind of public health training.

Respondents' perspective of the diversity characteristic of the HS in the GS was relatively high. The highest aspects of diversity capacity were having enough number of heath care facilities capable to cover the community health needs, providing respectful health care services during crisis and the high utilization of the available package of health services.

However, there were contradictory perspectives of the respectfulness and the high utilization of services that they do not necessarily reflect the responsiveness aspect of diversity. Where the quality of the provided services was not perceived to be appropriate. Variability and lack of funding is the most critical issue facing the HS in the GS to respond to the population health needs. Other two main aspects threating the diversity of the HS were the chronic drug shortages that also affect the responsiveness aspect of diversity and the shortages of health work force particularly doctors. With future predictions that the number of qualified doctors will be even lower. If the system is to improve the diversity capacity health workforce issues must be addressed.

Contribution of IA's to the diversity characteristic is perceived to barely be in the medium level. IAs are highly contributing to supporting the system to effectively respond to the population health needs. IAs consider their contributions to the system as filling any existing gaps so that the system can keep standing. Moreover, it's believed that IAs highly contributed to the upgrading of health care facilities whether with constructions or equipment. However, the lowest contributions to the diversity capacity was concluded to be to support the system to obtain enough numbers of health workers. However, that doesn't cancel the fact that IAs support capacity building of health workforce through different forms of training and education activities.

The HS in the GS is relatively can be described to be an adaptive. However, not to a satisfactory level. The availability of mechanisms to, track progress and evaluate health system performance in calm and crisis times needs to be improved in order to improve the adaptiveness of the HS. The system is flexible to a medium level to reallocate funds to respond to immediate needs; Where IAs are the main factor behind this flexibility. The HS's largest failure; that if not addressed will always affect its adaptiveness is the failure to allocate financial resources to achieve fair and equitable coverage of health workforce benefits. And the IAs contribution to this capacity item was found to be in the medium level.

The HS is relatively characterized with high self-regulation capacity. It was evident that the system obtains high capacity to respond to emergencies, where roles get appropriately distributed among health care providers to guarantee the continuity of service delivery. IAs are highly contributing to this capacity item. However, for the emergency preparedness phase its concluded that the different stakeholders' efforts need to be organized to improve preparedness. The government obtained an accumulative experience for responding to emergencies that have improved over years to lead to high self-regulation capacity level. However, community engagement is still at its early stages. There are discrepancies among health care providers in their approach and implementation of this concept. Systematic organized efforts are essential to improve community engagement and participation.

It could be concluded that the HS in the GS is characterized with integration. However, results showed that it must improve. The strongest integration capacities are related to the coordination and referral among health care providers to reduce confusion and service delay. However, coordination is strong and effective during emergencies, but in calm times there are some internal political and communication issues that hinder effective coordination between and within health care providers. Community engagement in identifying health priorities, decision making, identifying routine emergency needs and establishing two-way communication channels with the community are the weakest integration capacity items than need to be strengthened. Overall contribution of IAs to the HS integration capacity is weak. The lowest IAs' contribution to integration capacity was related to community engagement.

The HS in the GS obtains a good level of awareness as a result of a combination of factors including the existence of a functional civil registration system, the identification of focal Points/ key persons across sectors who are immediately accessible for communication, decision making, and sounding alarms. However, the research, monitoring and evaluation capacity of the system need to be improved particularly to make accurate assessments of the impact of crisis. In addition, community awareness is essential to make them part of the system's planning, implementation and evaluation processes

The highest contribution of IAs towards HS awareness capacity is for supporting an active routine surveillance system, followed by the contribution to the HS to possess the needed capacity to identify risks and population status through a rigorous information system that provides timely and relevant information. However, there is a need to improve the concept of information for better decision through the development of a rigorous information

system that connects all health care providers and all citizens information in one integrated platform.

The five most areas of interventions towards the IAs are contributing to are awareness and health education, training and capacity building, PHC, equipment and constructions and secondary health care.

The Palestinian HS in the GS is evaluated to be resilient with some limitations. Where it's essential to strengthen all resilience characteristics. Either diversity, adaptiveness, self-regulation, integration or awareness. The IAs' contribution to the HS resilience is quite low. Given the results of the study and the resources that the HS obtains in the GS particularly the human resources; It's believed that the HS in the GS can be more resilient. However, that will not be possible without one national vision on how to best utilize the resources and interventions of the IAs.

The IAs interventions in the HS in the GS has their strengths as well as their weaknesses. However, strengths outweigh weaknesses. The IAs has strong capacity to mobilize resources to fund the functionality of the HS. However, they have their agendas that might not all the time be in line with the best national interest. They succeeded to support the immediate response in emergency. However, they are more focused on emergency rather than development. IAs contributed to the introduction of specialized medical services as well as the training of the health workforce. However, that did not reach the level of sufficiency. IAs contributions to the HS are affected by politics they are not sustainable, not constant and might not be continuous which threatens the future of the HS which at that day will most likely collapse, when the only sustainable HS resource will be the human resource who will keep standing to give but with nothing in their back.

5.2 Recommendations

1. It's difficult to separate health from politics. However, politics and particularly political division are of the most harming factors affecting the HS in the GS. The researcher recommends health actors mobilize political agendas to support health sector.
2. To strengthen the diversity capacity of the HS. A sustainable source of income must be generated by the government with support of IAs to cover the cost of service delivery and to improve the utilization rate as well as to avoid waste of

available resources. The highly equipped facilities and the available health workforce should be better employed. Therefore, its suggested to partially privatize the MoH services by establishing agreements with NGOs and the private sector to rent the MoH facilities, equipment and staff in a second shift at a reasonable price that generate income and does not lead to impoverishment. And IAs are invited to support the partial privatization of the government health services.

3. The HS financial system must be improved through a reform that provides financial autonomy to the health care providers particularly hospitals.
4. To improve the integration capacity of the HS in the GS. The Coordination among the different health actors must be improved. Through the development of national health strategic plan with clear and achievable vision. That needs to be attached with an annual operational plan distributing the roles among the national and international health actors and identifies pathways of coordination between the health actors.
5. To enhance the awareness and self-regulation capacities of the HS. It's recommended to rethink about the distribution of roles among the health care providers to avoid duplication of services and the over utilization of health sector resources. A country level mapping study for the capacities of all health care providers is recommended to be developed upon which health service delivery is to be distributed among providers to cover the health needs fairly in all geographical areas. Reform of services provision must take place.
6. To enhance all resilience capacities, the health workforce capacities must be improved. Therefore, it's recommended to save and best utilize the available local and international expertise through the designing and implementation of a long-term national health workforce development plan. This plan to be developed collaboratively by national and international health actors. Built on a strategy that supply and demand of competent health workers is managed on a national level.
7. Community engagement and participation in HS management and decision making is crucial to strengthen the HS resilience. Therefore, the researcher recommends improving the community engagement and participation to become deciders of their own health. Through first improving community awareness about their health rights and the role of the system. The next step will be a nationally coordinated community engagement program.

8. IAs constitutes a major source of financing health services in Gaza, however, this fund is not appropriately utilized and its contribution to supporting resilience of the HS is not adequate. It is important to jointly work with the IAs to formulate a clear national health strategy and to direct the IAs to support that strategy. Moreover, IAs should be better regulated, monitored and evaluated to increase its relevancy to the Palestinian needs. Clear policy to recruit, deploy, utilize, monitor and evaluate IAs should be developed and rigorously implemented.
9. Finally, to guarantee a sustainable resilience. Governance is the cornerstone. IAs are recommended to support building the local leadership capacity by equipping this team with the needed financial, managerial and technical skills to govern the health care system.

5.3 Suggestions for future studies

- Assessment of the resilience of health care system from the perspective of the Community in the GS
- Country level mapping study to assess the local health care providers capacities based on the HS six building blocks
- Evaluation of the health system leadership capacity

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Annexes

Annex (1): The study questionnaire

Questionnaire Form

Dear Participant,

My name is Rasha Almoghany, a post graduate student at the School of Public Health, Al-Quds University - Abu Dees, I am conducting a study on:

" Contribution of The International Agencies to Supporting the Resilience of The Health Care System in The Gaza Strip"

Which is being submitted in partial fulfillment of requirements for the degree of master's in public health - health management track.

The study has two aims; the first is to assess the contribution of international agencies in supporting the resilience of the health system in the Gaza Strip and the second is to identify potential areas for improvement within this contribution. The overall objective of this study is to improve the wellbeing of Palestinians in the Gaza Strip through the provision of effective and efficient healthcare services.

For this purpose, a questionnaire was developed and based on your experience as a manager in a health care institution, I'm inviting you to participate in this study by completing the attached questionnaire.

The questionnaire will require approximately 30 minutes to complete. There is no compensation for responding nor is there any known risk. I would like to confirm that all information will be anonymized and will only be used for research purposes. If you choose to participate in this study, I would be most grateful if you could answer all questions as transparently as possible in order to ensure that the study findings are accurate.

Participation is strictly voluntary, and you may refuse to participate at any time.

Thank you for taking time to assist me in my educational endeavors. If you require additional information or have questions, please contact me using my contact details below.

Sincerely,
Rasha Ziad Almoghany
0595124089 – ralmoghany@gmail.com
Research supervisor: Prof. Yehia Abed

Health care Providers Questionnaire

Serial No.: ☐ **Date: / /20**

First part: Participant Demographic and Personal Information

1.	**Gender:**	☐ Male	☐ Female		
2.	**Age**	…….			
3.	**Qualification**	☐ Diploma	☐ Bachelor	☐ Master	☐ PhD
4.	**Number of years of experience in the health sector ……**				
5.	**Profession**	☐ Doctor	☐ Nurse	☐ Pharmacist	☐ Technician
		☐ Administrative	☐ Support Services	☐ Other Please Specify …	
6.	**Sector of Work**	☐ MoH	☐ UNRWA	☐ NGO	☐ INGO
7.	**Job Title**	…….			
8.	**Area of Work (Governorate)**	☐ North	☐ Gaza	☐ Middle	
		☐ Khanyounis	☐ Rafah		
9.	**Nature of Work**	☐ Administrative	☐ Technical	☐ Both	☐ Other Please Specify ……
10.	**Field of Work**	☐ Central Management	☐ Primary Health Care	☐ Hospital	☐ Other Please Specify ……
11.	**Did you receive public health training?**	☐ No	☐ Yes		
12.	**If Q11 is yes**	☐ Short course	☐ Diploma	☐ Master	
		☐ Higher degrees	☐ Other Please Specify ……		

Second Part: Assessment of the Resilience of the Palestinian Health System in the GS and the contribution of the International Agencies (IAs) to HS resilience:

Dear Participant,

The following part of the questionnaire includes number of statements that describe the characteristics and capacities of a resilient health systems.

Definition of resilient HS: *'The capacity of health actors, institutions, and populations to prepare for and effectively respond to crises; maintain core functions when a crisis hits; and, informed by lessons learnt during the crisis, reorganize if conditions require it'*

For each statement you are kindly asked to:

1- *In the (Score) column: to use a score (from 0 to 10) to indicate the degree to which you agree that this statement applies to the Palestinian health system in the GS.*
0 mean strongly disagree – 10 strongly agree

2- *In the (% IAs): to use a percentage (from 0% to 100%) to indicate the degree to which the international agencies' interventions contribute to the Palestinian health system to get the score you gave in the score column.*
0% mean low or limited contribution– 100% high contribution

#	Q	Score (0-10)	% IAs (0-100)
First: Diversity of Health System (HS)			
Response to population health care needs			
13.	The HS does Effectively respond to the population health needs		
14.	The HS delivers services that respond to population primary health care needs and expectations through basic primary care packages		
15.	The available package of health services is well utilized by the population		
16.	The available package of health services is well utilized by the population		
17.	The current number of heath care facilities is enough to provide appropriate coverage of community health needs		
18.	The HS has sufficient capacity in all health workforce categories		
19.	Basic health care packages include quality services that effectively respond to sentinel health conditions		
20.	The care provided to the population during crisis is competent and respectful		
21.	Health care facilities are well equipped to respond to the population health care needs		
22.	The structures of health care facilities including water and sanitation facilities meet quality standards (separated areas for males and females and adapted for persons with disabilities)		

#	Q	Score (0-10)	% IAs (0-100)
Financing of healthcare: adequacy of government health expenditure and financial Protection			
23.	The health system funding is enough to support functioning services		
24.	Point of services payments (out of Pocket payments) do not lead to putting people in impoverishment		
Second: Health system adaptiveness			
Shifting resources to meet needs			
25.	Spending of national funds is characterized by flexibility		
26.	Spending of international funds is characterized by flexibility		
27.	During emergencies funds gets reallocated to respond to the immediate health needs		
28.	The current financing mechanisms speed up response during emergencies and in other fast changing situations		
29.	The HS financial resources are available		
30.	The HS financial resources are adapted to achieve fair and equitable coverage of HW benefits/ salaries		
Promotion of rapid local decision making			
31.	The local district health teams have the capacity to make rapid decision making		
32.	The local district health teams are encouraged to make rapid decision making		
33.	Local health teams have the capacity to interpret local data		
34.	Local health teams have the capacity to interpret local data and local leaders are capable to make quick and sound operational decisions		
Evaluation for improvement			
35.	Mechanisms for, and capacity to, track progress and evaluate health system performance in crisis and in times of calm does exist		
36.	The HS performs rigorous monitoring during crisis and independent evaluation post-crisis		
Third: Health system self-regulation			
Isolation of threats and maintaining core functions			
37.	Mechanisms for, and capacity to, track progress and evaluate health system performance in calm times does exist		
38.	The HS performs rigorous monitoring during crisis and independent evaluation post-crisis		
39.	The government possesses the required capacity to perform the HS leadership role in setting priorities		
40.	The government possesses the required capacity to lead the implementation of rapid action plans in emergency and crisis situations		
41.	The government possesses the required capacity to perform the HS leading role to provide timely and accurate information		
42.	The government possesses the required capacity to lead the HS in community engagement		

For each statement you are kindly asked to:

1- *In the (Score) column: to use a score (from 0 to 10) to indicate the degree to which you agree that this statement applies to the Palestinian health system in the GS. 0 mean strongly disagree – 10 strongly agree*
2- *In the (% IAs): to use a percentage (from 1% to 100%) to indicate the degree to which the international agencies' interventions contribute to the Palestinian health system to get the score you gave in the score column. 0% mean low or limited contribution– 100% high contribution*

#	Q	Score (0-10)	% IAs (0-100)
Forth: Health system Integration			
National emergency planning and Coordination with non-health actors (education, protection, transport, police, media, private enterprise)			
43.	In times of crisis the system can isolate threats and continue delivering needed care		
44.	Role distribution among providers increased the system's potential to expand services during emergencies and promoted collaboration during crises		
Engaging citizens and communities to build trust			
45.	A national emergency plan / emergency coordination system does exist with clear communication plans, leaders and distribution of roles among health and non-health actors		
46.	In past crisis there were readily available emergency plans		
47.	In past crisis, intersectoral coordination procedures encouraged fast decision making and implementation, that curbed the effects of emergencies		
48.	Citizens and communities are engaged in health system planning and decision making		
49.	Platforms for dialogue with community leaders are well established		
50.	Regular input about health system functioning from citizens is used to improve emergency planning		
51.	Two-way communication channels are established with the community to identify routine and emergency needs		
52.	The HS responsiveness to community needs promotes the trust of the community in the HS		
53.	The population trusts the health system		
54.	Health care utilization during crisis is an indicator of the population's trust in the competency of the health system		
55.	The population accepts the government's messages in crises		
Linking healthcare provision to public health			
56.	Recruitment and capacity building activities involve not only clinical staff but also non-clinical and community health workers		
57.	The HS supports establishment and capacity building of community-based health support mechanisms		
58.	Health care provision is linked to public health concepts of (disease prevention, prolonging life and the promotion of health through organized society efforts)		
59.	Health staff in your organization are trained enough in public health		

Coordination of primary and referral care			
#	**Q**	**Score (0-10)**	**% IAs (0-100)**
60.	Coordination of referral is reducing confusion and service delay, and streamlines service delivery for patients		
61.	Patients are referred from primary to specialized care as soon as they need the specialized care		
62.	Referral pathways to specialized care and non-health actors (police, protection…etc.) do exist		
63.	Health staff are aware of existing referral pathways		
64.	Health staff use existing referral pathways effectively		
65.	Coordination of referral is reducing confusion and service delay, and streamlines service delivery for patients		
Fifth: Health system awareness			
Health system capacity			
66.	The HS in GS possess the needed capacity to identify risks and population status through a rigorous information system that provides timely and relevant information		
67.	The HS in GS has a reliable mapping system of all health facilities including NGOs and private sector		
68.	A routine monitoring system does exist and is utilized to detect services fluctuations		
69.	Systems are available to make accurate assessments of the impact of crisis and rate of return to baseline after shock		
Awareness of risks and population trends			
70.	An active routine surveillance system exists to detect disease threats and trigger mitigation mechanisms		
71.	The HS possess adequate research and development capacity to perform data collection, analysis, reporting and dissemination		
72.	A Functioning civil registration and vital statistics systems exist		
73.	Health actors possess basic knowledge of population demographics and use it to estimate health threats and trends as well as to understand crisis impact		
Communication			
74.	Focal Points/ key persons across sectors are identified and immediately accessible for communication, decision making, and sounding alarms		
75.	The HS current environment is an environment of free speech and freedom of press		
76.	Functioning, open platforms and technology for timely communication (hotlines, community committees, social media) are available		
77.	Communities are encouraged to notify and sound alarms		

Third part: Nature of International Agencies' (IAs) interventions in the HS in the GS

78. Most IAs support to service delivery goes to: (choose Five)

☐ Public health services	☐ Secondary health care	☐ Primary health care	☐ Awareness and health education	☐ Training and capacity building
☐ Infrastructure	☐ Research/monitoring and evaluation	☐ Diagnostic	☐ Rehabilitation and social	
☐ Advocacy	☐ Relief	☐ Policies and regulations	☐ Other (…….....)	

79. Focus of financed interventions are:

☐ Emergency ☐ Development ☐ Both

80. Who are the main active IAs supporting your organization? In terms of amounts of funds and activities?

……
……
……
……
……
……

81. From your perspective what are the strengths and weaknesses of the IAs contributions to the health system in the GS?

Strengths:

……
……
……
……
……
……

Weaknesses:

……
……
……
……
……
……
……

استبانة

الأخ الفاضل / الأخت الفاضلة ،،،

السلام عليكم و رحمة الله و بركاته ،،،

أنا الباحثة رشا المغني، من كلية الصحة العامة – جامعة القدس– أبو ديس، أقوم بإجراء دراسة حول:

"مساهمة الجهات الدولية في دعم صمود نظام الرعاية الصحية في قطاع غزة"

" Contribution of The International Agencies to Supporting the Resilience of The Health Care System in The Gaza Strip"

وذلك استكمالا لمتطلبات الحصول على درجة الماجستير في الصحة العامة– مسار الإدارة الصحية

حيث تهدف الدراسة إلى تقييم مدى إسهام الجهات الدولية في دعم صمود نظام الرعاية الصحية في قطاع غزة، وكذلك تحديد الفرص الممكنة لتطوير هذا النظام من خلال هذه المساهمة، و ذلك لتقديم توصيات للنظام الصحي لتطوير فعالية و كفاءة الخدمات المقدمة لتحقيق الرفاهية للفلسطينيين في قطاع غزة.

ولهذا الغرض فقد أعددت استبانة لمقامكم الكريم باعتباركم أحد المديرين الفاعلين في النظام الصحي و ممثلا عن الجهات المقدمة للخدمات الصحية، وتقديرا لخبراتكم المتراكمة ودوركم الهام في هذا المجال.

أرجو منكم التكرم بتعبئة هذه الاستبانة بدقة وموضوعية، بما يتفق مع وجهة نظركم مع الأسئلة الواردة فيها، آملة بتعاونكم لتحقيق النتائج المرجوة لهذه الدراسة العلمية.

علما بأن الاستبانة تتطلب تعبئتها 30 دقيقة من وقتكم الثمين، مؤكدين لكم أن المعلومات التي سيتم الحصول عليها سوف تعامل بسرية تامة ولن تستخدم إلا لأغراض البحث العلمي. مع ملاحظة أن المشاركة طوعية، و يمكنكم الانسحاب أو رفض المشاركة في أي وقت تشاءون.

الرابط الالكتروني للاستبانة https://www.surveymonkey.com/r/gazhsresilience

شكرا جزيلا لكم على مساعدتي في تحقيق أهدافي العلمية، في حال كان لديكم أي استفسار، أرجو التواصل معي حسب معلومات الاتصال المدرجة أدناه.

مشرف الدراسة : د. يحيى عابد **الباحثة: رشا زياد المغني**

0595124089 – ralmoghany@gmail.com

استبانة مقدمي الخدمات الصحية

الرقم المتسلسل ☐ **التاريخ:** / / **20**

الجزء الأول: المعلومات الشخصية

1.	**الجنس**	☐ ذكر	☐ أنثى		
2.	**العمر**	.....			
3.	**المستوى التعليمي**	☐ دبلوم	☐ بكالوريوس	☐ ماجستير	☐ دكتوراة
4.	**عدد سنوات الخبرة في القطاع الصحي .....**				
5.	**المهنة**	☐ طبيب	☐ ممرض	☐ صيدلي	☐ فني
		☐ خدمات مساندة	☐ إداري	☐ غير ذلك حدد	
6.	**قطاع العمل**	☐ وزارة الصحة	☐ وكالة الغوث UNRWA	☐ منظمة غير حكومية محلية	☐ منظمة دولية
7.	**المسمى الوظيفي**	.....			
8.	**منطقة العمل (المحافظة)**	☐ الشمال	☐ غزة	☐ الوسطى	
		☐ خانيونس	☐ رفح		
9.	**طبيعة العمل**	☐ إداري	☐ فني	☐ كلاهما	☐ غير ذلك، حدد .....
10.	**مجال العمل**	☐ الإدارة المركزية	☐ الرعاية الأولية	☐ مستشفيات	☐ غير ذلك، حدد .....
11.	**هل تلقيت أي تدريبات في الصحة العامة**	☐ نعم	☐ لا		
12.	**إذا كانت أجابة سؤال 11 نعم فما هو مستوى التدريب**	☐ دورة تدريبية	☐ دبلوم	☐ ماجستير	
		☐ دكتوراة	☐ غير ذلك، حدد		

الجزء الثاني: تقييم صمود النظام الصحي في قطاع غزة و مدى مساهمة الجهات الدولية في دعم صموده

الأخ/ الأخت المشارك/ة ،،،

يتضمن الجزء التالي من الاستبانة مجموعة من العبارات التي تصف خصائص و قدرات الصمود لدى النظام الصحي

تعريف صمود النظام الصحي: *قدرة الجهات والمؤسسات الصحية والسكان على الاستعداد للأزمات والاستجابة لها بفعالية، و الحفاظ على وظائفها الأساسية عند التعرض للأزمات ؛ و الاستناد على الدروس المستفادة من الأزمة لإحداث تغيير أو إعادة التنظيم في حال تطلبت الظروف لذلك*

Definition of resilient health system: *'The capacity of health actors, institutions, and populations to prepare for and effectively respond to crises; maintain core functions when a crisis hits; and, informed by lessons learnt during the crisis, reorganize if conditions require it'*

لكل عبارة من العبارات المطلوب كالتالي:

أ. في عمود (التقييم): إعطاء درجة من (صفر إلى 10) للإشارة إلى مدى توافق هذه العبارة مع نظام الرعاية الصحية في قطاع غزة، حيث (صفر تعني غير موافق بشدة – 10 تعني موافق بشدة)

ب. في عمود (مساهمة الجهات الدولية):
- **استخدام نسبة من (0% إلى 100%)، للإشارة إلى مدي مساهمة الجهات الدولية في دعم نظام الرعاية الصحية للحصول على الدرجة التي أعطيتها في عمود التقييم، حيث 0% تعني لا توجد أي مساهمة – 100 % تعني مساهمة عالية جدا.**

ج. إذا كنت لا تعرف ضع إشارة(DK)

#	العبارة	التقييم (10 – 0)	مساهمة الجهات الدولية % (100 – 0)
أولا: تنوع نظام الرعاية الصحية			
الاستجابة لاحتياجات الرعاية الصحية للسكان			
13.	يستجيب النظام الصحي للاحتياجات الصحية للسكان بفعالية		
14.	يقدم النظام الصحي مجموعة من خدمات الرعاية الأولية القادرة على الاستجابة لكل من احتياجات و توقعات السكان من خدمات الرعاية الصحية الأولية		
15.	يتم استخدام حزمة الخدمات الصحية المتاحة بشكل جيد من قبل السكان		
16.	العدد الحالي لمرافق الرعاية الصحية كاف لتوفير تغطية مناسبة للاحتياجات الصحية للمجتمع		
17.	تتوفر لدى النظام الصحي الكوادر البشرية الكافية من جميع التخصصات اللازمة		
18.	يوفر النظام الصحي الأدوية الكافية لاحتياجات السكان		
19.	تتضمن حزم الرعاية الصحية الأساسية خدمات ذات جودة عالية يمكنها التعامل بفعالية مع المشاكل الصحية التي يمكن الوقاية منها كبعض الأمراض و الإعاقات		
20.	تتسم الرعاية التي يتم تقديمها في أوقات الأزمات بالاحترام		
21.	مرافق الرعاية الصحية مجهزة جيدًا لتلبية احتياجات الرعاية الصحية للسكان		

.22	تتوافق مباني الرعاية الصحية بما في ذلك مرافق المياه والصرف الصحي مع معايير الجودة مثالا على ذلك (دورات مياه منفصلة لكل من الذكور والإناث ومهيأة للأشخاص ذوي الإعاقة)		
#	**العبارة**	**التقييم (10 – 0)**	**مساهمة الجهات الدولية % (100 – 0)**
تمويل الرعاية الصحية: كفاية الإنفاق الصحي الحكومي والحماية المالية			
.23	تمويل النظام الصحي كاف لدعم استمرار الخدمات الصحية		
.24	رسوم الخدمات الصحية (الدفع من الجيب مباشرة)[1] لا تؤدي لوصول السكان إلى حالة الفقر المدقع		
ثانيا: قدرة النظام الصحي على التكيف			
إعادة تخصيص الموارد لتلبية الاحتياجات			
.25	يتسم إنفاق التمويل الوطني بالمرونة حيث يمكن إعادة توظيفه حسب الحاجة		
.26	يتسم إنفاق التمويل الدولي بالمرونة حيث يمكن إعادة توظيفه حسب الحاجة		
.27	يتم إعادة توزيع مسارات التمويل في أوقات الطوارئ، للاستجابة للاحتياجات الصحية العاجلة		
.28	آليات التمويل الحالية تساهم في تسريع الاستجابة أثناء حالات الطوارئ		
.29	تعتبر مصادر تمويل النظام الصحي متوفرة		
.30	يتم تكييف مصادر تمويل النظام الصحي لتحقيق تغطية عادلة و منصفة لرواتب و مخصصات القوى العاملة		
تعزيز اتخاذ القرارات السريعة (القرارات اللامركزية)			
.31	تتمتع الطواقم الصحية المحلية في المحافظات بالقدرات اللازمة على اتخاذ القرارات السريعة		
.32	يتم تشجيع االطواقم الصحية المحلية في المحافظات على اتخاذا القرارات السريعة		
.33	تتمتع الطواقم الصحية المحلية بالقدرة على تفسير البيانات المحلية		
.34	يمتلك القادة المحليون مثل (مسؤولي الصحة في المناطق أو المحافظات) المقدرة على اتخاذ قرارات تشغيلية سريعة وسليمة		
.35	يتم إعداد اتفاقيات تفويض السلطة قبل الأزمة بهدف تعزيز عملية اتخاذ القرارات السريعة على المستوى المحلي أثناء الأزمات		
التقييم بغرض التطوير			
.36	توجد آليات لمتابعة وتقييم أداء النظام الصحي في أوقات الأزمات		
.37	توجد آليات لمتابعة وتقييم أداء النظام الصحي في الأوقات الاعتيادية		
.38	يقوم النظام الصحي بإجراء متابعة دقيقة أثناء الأزمات والتقييم لما بعد الأزمة		

[1] الدفع من الجيب مباشرة او إنفاق الأسر المعيشية (Out of Pocket Payment): النفقات المباشرة التي يدفعها الأفراد لمقدمي الرعاية الصحية وقت استخدام الخدمة

لكل عبارة من العبارات المطلوب كالتالي:

أ. في عمود (التقييم): إعطاء درجة من (صفر إلى 10) للإشارة إلى مدى توافق هذه العبارة مع نظام الرعاية الصحية في قطاع غزة، حيث (صفر تعني غير موافق بشدة – 10 تعني موافق بشدة)

ب. في عمود (مساهمة الجهات الدولية):

- **استخدام نسبة من (0% إلى 100%)، للإشارة إلى مدي مساهمة الجهات الدولية في دعم نظام الرعاية الصحية للحصول على الدرجة التي أعطيتها في عمود التقييم، حيث 0% تعني لا توجد أي مساهمة – 100 % تعني مساهمة عالية جدا.**

ج. إذا كنت لا تعرف ضع إشارة(DK)

#	العبارة	التقييم (10 – 0)	مساهمة الجهات الدولية % (100 – 0)
ثالثا: قدرة النظام الصحي على التظيم الذاتي			
عزل المخاطر و الحفاظ على الوظائف الرئيسية			
.39	تمتلك الحكومة القدرة اللازمة لممارسة الدور القيادي في تحديد الأولويات الصحية		
.40	تمتلك الحكومة القدرة اللازمة لقيادة تنفيذ خطط الاستجابة السريعة في حالات الطوارئ والأزمات		
.41	تمتلك الحكومة القدرة اللازمة لأداء الدورالريادي في توفير المعلومات الدقيقة و في الوقت المناسب		
.42	تمتلك الحكومة القدرة اللازمة لقيادة النظام الصحي في تعزيزالمشاركة المجتمعية		
.43	في أوقات الأزمات ، يمكن للنظام عزل المخاطروموصلة تقديم الرعاية اللازمة		
.44	يساهم توزيع الأدوار بين مقدمي الخدمات الصحية في توسيع نطاق الخدمات المقدمة أثناء الطوارئ وتعزيز التعاون في أوقات الأزمات		
رابعا: تكامل النظام الصحي			
التخطيط والتنسيق في حالات الطوارئ على المستوى الوطني مع الجهات و القطاعات المختلفة (التعليم ، الحماية ، النقل و المواصلات ، الشرطة ، الإعلام ، المؤسسات الخاصة)			
.45	توجد خطة طوارئ وطنية واضحة و تتضمن آليات للقيادة والتواصل و توزيع للأدوار بين القطاع الصحي و القطاعات الأخرى		
.46	توفرت في الأزمات الماضية ئخطط طوارئ جاهزة و واضحة		
.47	شجعت إجراءات التنسيق بين القطاعات المختلفة في الأزمات الماضية على اتخاذ القرارات بسرعة وتنفيذها ، مما حد من آثار الأزمة		
إشراك المواطنين و المجتمعات لبناء الثقة			
.48	يتم إشراك المواطنين والمجتمعات في تخطيط النظام الصحي واتخاذ القرارات		
.49	يوجد آليات واضحة و منصات للحوار مع قادة المجتمع		
.50	يتم الأخذ بآراء المواطنين حول النظام الصحي بشكل منتظم و ذلك يسهم في تحسين التخطيط للطوارئ		

51.	يوجد قنوات اتصال ثنائية الاتجاه مع المجتمع لتحديد الاحتياجات الروتينية و الاحتياجات الطارئة		
52.	استجابة النظام الصحي لاحتياجات المجتمع تعزز ثقة المجتمع في هذا النظام		
53.	يثق السكان بالنظام الصحي الفلسطيني		

#	العبارة	التقييم (10 – 0)	مساهمة الجهات الدولية % (100 – 0)
54.	يعتبر استخدام الرعاية الصحية أثناء الأزمات أحد المؤشرات على ثقة السكان في كفاءة النظام الصحي		
55.	يتقبل السكان الرسائل المرسلة من الحكومة في ظروف الطوارئ		
56.	لا تقتصر أنشطة التوظيف و بناء القدرات على الموظفين الاكلينيكيين ولكن أيضًا العاملين الصحيين غير الإكلينيكيين والعمال الاجتماعيين		
57.	يدعم النظام الصحي إيجاد آليات و بناء قدرات المجتمع للمشاركة في تقديم الدعم الصحي المجتمعي		
الربط بين تقديم الرعاية الصحية و مبادئ الصحة العامة			
58.	يرتبط تقديم الخدمات الصحية بمبادئ الصحة العامة مثل (الوقاية من الأمراض وإطالة الحياة وتعزيز الصحة من خلال جهود منظمة من قبل المجتمع)		
59.	يتم تدريب العاملين الصحيين في مؤسستك بدرجة كافية على مبادئ الصحة العامة		
التنسيق و التحويل بين الرعاية الأولية و الخدمات المختصة			
60.	يوجد نظام معروف للتحويل يتم من خلاله تنسيق الأدوار والمسؤوليات بين مرافق الرعاية الصحية بمختلف مستوياتها		
61.	يساهم تنسيق عمليات التحويل بين المرافق الصحية في تقليل الارتباك و تأخير الخدمات و كذلك في تيسير تقديم الخدمة للمرضى		
62.	يتم تحويل المرضى من الرعاية الأولية إلى الرعاية المختصة فور احتياجهم لها		
63.	يوجد آليات واضحة للتحويل بين الجهات الصحية و غيرها مثل (الشرطة و الحماية و غيرها)		
64.	الكادر الصحي لديه الوعي بآليات و مسارات التحويل الموجودة حاليا		
65.	يستخدم الكادر الصحي آليات التحويل بفعالية		
خامسا: وعي النظام الصحي			
المعرفة بقدرات النظام الصحي			
66.	لدى النظام الصحي القدرة على تحديد المخاطر التي تهدد المجتمع و التعرف على المؤشرات الخاصة بحالة المجتمع و ذلك من خلال نظام معلومات قوي يوفر المعلومات ذات العلاقة في الوقت المناسب		
67.	يوجد نظام جغرافي واضح يشتمل على الموقع الجغرافي لكل		

	المرافق الصحية التابعة لكل مقدمي الخدمات الصحية بما في ذلك المرافق التابعة للمنظمات الغير حكومية و القطاع الخاص		
.68	يوجد نظام روتيني للمتابعة و يستخدم في تتبع التغيرات و التقلبات في الخدمات المقدمة		
.69	يوجد أنظمة لإجراء تقييمات دقيقة لآثار الأزمات على الوضع الصحي و قياس معدل العودة للأوضاع الطبيعية بعد الأزمات		
الوعي بالمخاطر و التغيرات السكانية			
.70	يوجد نظام فاعل للمتابعة و المراقبة للكشف عن الأمراض التي تهدد المجتمع وإطلاق آليات للتخفيف و الوقاية منها		
.71	يمتلك النظام الصحي القدرات البحثية و التطويرية الكافية لإجراء جمع البيانات و تحليلها و كتابة التقارير و نشرها		
.72	يوجد نظام سجل مدني فاعل و يوفر الإحصاءات الحيوية اللازمة		
#	**العبارة**	**التقييم (10 – 0)**	**مساهمة الجهات الدولية % (100 – 0)**
.73	تمتلك الجهات الفاعلة في القطاع الصحي المعرفة الأساسية لديموغرافيا السكان ويستخدمونها في تقدير المخاطر والتغيرات الصحية و فهم آثار الآزمات على المجتمع		
الاتصال و التواصل			
.74	يوجد لكل قطاع أشخاص اتصال أو جهات اتصال معينة، يمكن الوصول إليهم بشكل فوري للقيام بمهام الاتصال و صنع القرارات و إطلاق الإنذارات في أوقات الطوارئ		
.75	تتسم البيئة الحالية للقطاع الصحي بحرية التعبير و الصحافة		
.76	تتوفر التكنولوجيا و الأدوات اللازمة للاتصال و التواصل (خطوط ساخنة ، لجان مجتمعية، وسائل الإعلام الاجتماعي)		
.77	يتم تشجيع المجتمعات على الإبلاغ عن المشاكل و إطلاق الإنذارات		

الجزء الثالث: طبيعة تدخلات الجهات الدولية في دعم النظام الصحي في قطاع غزة

.78	**تتجه معظم تدخلات الجهات الدولية الداعمة للنظام الصحي نحو : (اختر خمسة)** ☐ التوعية و التثقيف الصحي ☐ الرعاية الأولية ☐ الرعاية الثانوية ☐ التدريب و بناء القدرات ☐ التأهيل و الدمج المجتمعي ☐ التشخيص ☐ البحوث و المتابعة و التقييم ☐ المناصرة ☐ التجهيز و اللوازم و الإنشائات ☐ السياسات و الأنظمة ☐ الإغاثة **غيرها** (.....)
.79	**يتركز القدر الأكبر لتدخلات الجهات الدولية نحو** ☐ الطوارئ ☐ التنمية ☐ كلاهما

.80 من هي أهم الجهات الدولية الداعمة لمؤسستكم من حيث حجم التمويل و الانشطة؟

……

……

81. من وجهة نظرك، ما هي نقاط القوة و نقاط الضعف التي تختص بها إسهامات الجهات الدولية في النظام الصحي في قطاع غزة

نقاط القوة	نقاط الضعف

Annex (2) Key Informant Interview Questions

1. **Service delivery:**

- What do you think about the HS responsiveness to the population health needs?
    - What is a respectful health service? How does the system guarantee to provide it?
    - What do you feel about people's utilization of the available services?
- To what extent IAs support delivering responsive health services?

2. **Funding:**

- What about the availability of funding to keep services functioning? Is it enough? What are the sources?
- Flexibility of spending funds (local and international) - Reallocation of funds to respond to immediate health needs (examples)

3. **Health workforce:**

- What about the HW are they enough? Why? What could be done? Are they trained enough?
- Coverage of HW salaries benefits
- What is the role of IA in this part (examples)

4. **Governance - Self-regulation:**

- The government possess the leadership capacity to lead the HS in setting priorities
- Leadership capacity in community engagement
- Leading the setting and implementation of rapid action plans
- What is the role of IA in this part (examples)

5. **Integration**

- Referral and distribution of role, facilitation of providing the services in emergency
- Tell me about the coordination with other sectors? focal points across sectors are identified and immediately available for decision making and sounding alarms
- What is the role of IA in this part (examples)

6. **Community:**

- Community participation in health system planning, it's in the middle level how do you work to improve it, how do you guarantee community participation in planning and decision making
- What channels are available for community to communicate emergency needs
- What do you think about the community perspective of the services provided, is it trusted? Do they listen to the government messages?
- What is the role of IA in this part (examples)

7. **Health information system:**

- How does the system make decisions? Decision making process. Rapid decision making? Informed decision?
- Monitoring and evaluation - Tracking progress – analyzing and interpreting data - assessment of responses and rate of return to baseline after crisis
- Surveillance system to detect disease and trigger mitigation mechanisms
- What is the role of IA in this part (examples)

If international agencies stopped supporting the HS in Gaza, what would be the consequences?

Questions for International Agencies Only:

- As an international agency how do you support the health system (HS) in the Gaza Strip?
- How does your agency design its interventions?
- What are the main challenges you face in the GS?

Annex (3) Kurk and colleagues proposed index for resilient health system

Characteristics*	Aims	Measures	Rationale
Aware	Know health system capacity	1 Distribution of health system assets and weaknesses[a]	Real time geo-registry of HWs, supplies, and facilities (including NGOs and private operations) can realistically gauge available national capacities
		2 Health service utilisation trends	Routine health monitoring helps system detect service fluctuations and accurate assessments of crisis impact, and rate of return to baseline after a shock
	Know risks and population	3 Presence of active epidemiologic surveillance system[a,b]	Routine surveillance is necessary to detect disease threats and trigger mitigation mechanisms
		4 Functioning civil registration and vital statistics system	Basic knowledge of population demographics is important for estimating health threats and trends, and understand crisis impact
	Communicate	5 List of decision makers in key sectors[a]	Point persons across sectors must be immediately accessible for communication, decision making, and sounding alarms
		6 Breadth of functioning communication channels[a]	Communities must be able to notify and sound alarms—this requires an environment of free speech and freedom of press, and functioning, open platforms for timely communication (hotlines, community committees, social media)
Diverse	Effectively respond to range of health needs	7 Scope of health services available in primary care[c]	Including services that respond to population health needs and expectations in basic primary care package will promote routine health system utilisation and confidence in the health system
		8 Quality of care for sentinel conditions in basic package[c]	Health outcomes, healthcare utilisation during crisis, and trust in health authorities require competent and respectful care
	Adequately finance health systems; prevent financial harm	9 Financing of healthcare: adequacy of government health expenditure and financial protection[c]	Total health system funding must be sufficient to support functioning services; financing systems should aim to reduce catastrophic and impoverishing health spending[63–66]
Self regulating	Isolate threat and maintain core function	10 Memorandums of understanding with non-state providers	Establishing agreement about roles for private providers—not for profit and for profit—in crisis expands service provision in emergencies and may promote collaboration in times of calm
		11 Database of service delivery alternatives for affected and unaffected populations[a]	A routinely updated global, open access library of service delivery models tested and deemed effective in past crises promotes inter-country learning and lowers redundant reinvention and perpetuation of failed ideas
	Leverage outside capacity	12 Collaboration agreements with regional and global actors	Agreements on nature of collaboration (timing, type of support, roles or responsibilities) during emergencies is a form of smart dependency and contributes to a faster, more effective response[29]
Integrated	Coordinate with non-health actors (education, transport, police, media, private enterprise)	13 Existence of a national emergency coordination system and leaders[a]	Ready coordination systems encourages fast decision making and implementation, curbing potential effects of emergencies
		14 Frequency of joint planning sessions and drills[a]	Rehearsal of preparedness plans and regular collaboration establishes norms of intersectoral teamwork
		15 Process for development of a One Health strategy[b]	Acknowledging human ties to the environment and other species encourages an inclusive understanding of public health vulnerabilities
	Engage citizens and communities to build trust	16 Index of Ministry of Health and government responsiveness to community need	Quick action in responding to community needs can foster trust and promote containment of health shock
		17 Population trust in health system	Trust in government and the health system is essential to effective service delivery and for acceptance of government messages in crises—this is true in government run and mixed provider health systems[67,68]
		18 Platforms for dialogue with community leaders	Regular input about health system functioning from citizens will improve emergency planning and establish communication channels for routine and emergency needs
		19 In-country social scientists with experience working with health departments	Tapping experts in sociology, anthropology, and related disciplines strengthens understanding of key social structures in crisis response, local health determinants and the local appropriateness and acceptability of interventions
	Link healthcare provision to public health	20 Availability of district health staff with public health training[b]	Public health staff serve to promote public health practices and act as sentinels for potential outbreaks connecting local clinics to surveillance and monitoring system
	Coordinate primary and referral care	21 Agreement on roles and referral protocols for facilities	Defined agreements on the role of primary and referral facilities reduces confusion and service delay, and streamlines service delivery for patients
Adaptive	Shift resources to meet need	22 Formal provisions to reallocate funds in emergency	Flexible spending of funds—national and international—speeds up and better targets emergency response in fast changing situations

Characteristics*	Aims	Measures	Rationale
	Promote rapid local decision making	23 Management capacity of district or local health teams[c]	For decentralised responses, local health teams must be able to interpret local data and local leaders must be able to make quick and sound operational decisions
		24 Agreements on delegation of authority and funding in crises	Pre-crisis agreements permitting local decision making in crisis with sufficient support hasten response time to evolving challenges
	Evaluate to improve	25 Mechanisms for, and capacity to, track progress and evaluate health system performance in crisis and in times of calm[b]	Rigorous monitoring during crisis and independent evaluation post-crisis permits course correction and points to needed reforms. National capacity for data use and, more broadly, a culture of open inquiry and evaluation needs to be built in times of calm to deliver during a crisis.

*Characteristics are interrelated and interdependent. Decision making and coordination should occur across these characteristics

a, b, cindicate concepts similar to proposed International Health Regulation, Global Health Security Agenda, and sustainable development goals, respectively

Annex (4) Expert group reviewed the questionnaire:

1. Dr. Andy Ferguson
   Director of programs – Medical Aid for Palestinians

2. Mr. Abdul Nasser Soboh
   Acting Head of Gaza Sub-Office – World Health Organization

3. Dr. Bassam Abu Hamad
   Associate Professor – Faculty of Public Health – Al-Quds University

4. Dr. Louisa Baxter
   Health Advisor - Save The Children International

5. Dr. Mahmoud Radwan
   Public Health Institute – World Health Organization

6. Eng. Mahmoud Shalabi
   Senior Program Manager – MAP

7. Miss Samar Almoghany
   Senior Monitoring Evaluation Learning and Accountability Officer - Save The Children International

Annex (5) Helsinki Committee Ethical approval for the Study

المجلس الفلسطيني للبحث الصحي
Palestinian Health Research Council
تعزيز النظام الصحي الفلسطيني من خلال مأسسة استخدام المعلومات البحثية في صنع القرار
Developing the Palestinian health system through institutionalizing the use of information in decision making

Helsinki Committee
For Ethical Approval

Date: 2019/10/7 Number: PHRC/HC/605/19

الاسم:
Name: Rasha Ziad Almoghany

We would like to inform you that the committee had discussed the proposal of your study about:

نفيدكم علماً بأن اللجنة قد ناقشت مقترح دراستكم حول:

Contribution of International developmental Actors in Supporting the Resilience of Health System in the Gaza Strip

The committee has decided to approve the above mentioned research. Approval number PHRC/HC/605/19 in its meeting on 2019/10/7

و قد قررت الموافقة على البحث المذكور عاليه بالرقم والتاريخ المذكوران عاليه

Signature

Member 7/10/2019

Member

Chairman

Genral Conditions:-
1. Valid for 2 years from the date of approval.
2. It is necessary to notify the committee of any change in the approved study protocol.
3. The committee appreciates receiving a copy of your final research when completed.

Specific Conditions:-

E-Mail:pal.phrc@gmail.com

Gaza - Palestine غزة - فلسطين
شارع النصر - مفترق العيون

Annex (6) Letters for administrative approval from health care providers

Al-Quds University
Jerusalem
School of Public Health

جامعة القدس
القدس
كلية الصحة العامة

التاريخ:2019/12/23

حضرة الدكتور/ رامي العبادلة المحترم
مدير عام تنمية القوى البشرية–وزارة الصحة

تحية طيبة وبعد،،،

الموضوع: مساعدة الطالبة رشـا المغني

نشكر لكم دعمكم الدائم لمسيرة العلم والتعليم وخصوصاً دعم كلية الصحة العامة وطلابها، ونود أعلامكم بأن الطالبة المذكورة أعلاه تقوم بعمل بحث كمتطلب للحصول على درجة الماجستير في الصحة العامة–مسار إدارة صحية بعنوان:

"Contribution of International Agencies to Supporting the Resilience of Health System in the Gaza Strip"

وعليه نرجو من سيادتكم التكرم بالموافقة على تسهيل مهمة الطالبة في إنجاز هذا البحث حيث أن الفئه المستهدفة هم الموظفين الإدارية العاملين بوزارتكم الموقرة.

و اقبلوا فائق التحية و الاحترام،،،

د. بسام أبو حمد
منسق عام برامج الصحة العامة
فرع غزة

نسخة:
- الملف

Jerusalem Branch/Telefax 02-2799234
Gaza Branch/Telefax 08-2644220 -2644210
P.O. box 51000 Jerusalem

ع القدس / تلفاكس 02-2799234
رع غزة / تلفاكس 08-264420-2644210
ب. 51000 القدس

تقييم مدى صمود النظام الصحي الفلسطيني في قطاع غزة

إعداد: رشا زياد المغني

إشراف: د. يحيى عوض عابد

ملخص الرسالة

تهدف هذه الدراسة إلى تقييم مدى صمود النظام الصحي الفلسطيني في قطاع غزة، وذلك لتحديد مدى مساهمة الجهات الدولية في دعم صمود هذا النظام.

تم اعتماد المنهج الوصفي في أخذ عينة مقطعية من مجتمع الدراسة بالإضافة الى اعتماد مبدأ الخلط بين المنهج الكمي والكيفي، كذلك تم استخدام أداة للدراسة، وهي أداة تعبأ بشكل ذاتي لوصف وتحديد وجهة نظر الطاقم الإداري لدى المؤسسات الرئيسية المقدمة للخدمات الصحية، وعددهم 157 كادر وبمعدل استجابة 72%، بالإضافة الى إجراء 14 مقابلة مع ذوي الاختصاص.

أظهرت نتائج هذه الدراسة أن 79% من مجتمع الدراسة كانوا ذكورًا، كذلك 61.1% كانوا أكثر من 45 عامًا، و77% منهم كانوا يعملون في وزارة الصحة في غزة. المشاركين الذين يعملون في الإدارة المركزية كانوا يشكلون 40.8% بينما الباقين كانوا يعملون في مجالات الرعاية الصحية الأولية والثانوية، بالإضافة إلى ذلك معظم المشاركين في الدراسة كانوا يحملون المؤهلات العليا –ماجستير، دكتوراة– بنسبة 68.2%، كذلك 81.5% من مجتمع الدراسة تلقوا شكل من أشكال التدريب في مجال الصحة العامة.

بشكل عام، يعتبر النظام الصحي الفلسطيني نظامًا صامدًا بنسبة 75.9%، متنوعًا بنسبة 77%، في حين كان معدل التكيف 71%، و التنظيم الذاتي79%، ونسبة معدل التكامل 75%، والوعي بنسبة 79%. كما أن النتائج بينت أن مساهمة الجهات الدولية في دعم صمود النظام الصحي الفلسطيني قد بلغت 58.4% ، حيث كانت النسبة الأعلى للمساهمة في دعم القدرة على التنوع بمعدل 61%.

المجالات الخمسة لتدخلات الجهات الدولية كانت الوعي والتثقيف الصحي بنسبة 78.3%، التدريب وبناء القدرات بنسبة 72.4%، الرعاية الصحية الأولية بنسبة 67.1%، الأجهزة والبناء بمعدل 67.1%، والرعاية الصحية الثانوية بنسبة 35.5%.

ومن النتائج التي أثبتتها الدراسة أن الجهات الدولية لديها قدرة قوية في تحريك الموارد، ونجحت في الدعم والاستجابة الفورية في حالات الطوارئ ومع ذلك كان واضحًا بأن الجهات الدولية لديها أجندتها وبرامجها الخاصة التي تتأثر بالسياسة (سياسة الدول).

ومن خلال الدراسة أوصي الجهات الدولية بأن تأخذ بالاعتبار العمل المتعلق بالطوارئ من جهة والتنمية من جهة أخرى وذلك أثناء ممارسة عملها، كما أوصي صانعي القرار بالاستفادة من الجهات الدولية لدعم صمود النظام الصحي في قطاع غزة.