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Continuity Management
The Palestinian Health Care Sector

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This thesis was defended successfully on 20\ 12 \2012 and approved by:

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3. Dr. Husam Arman / Internal examiner	.....

Dedication

I would like to dedicate this thesis to the memory of my beloved father. May Allah grant him eternall rest, Ammen. I hope he would have been proud.

Acknowledgement

After sincerely thanking God for making me the person I am today, it becomes a privilege and a great pleasure for me to start with a word of gratitude to so many people around me who have provided me with the encouragement and support to accomplish this research. First and foremost, I wish to express my deepest appreciation to my mother who constantly prays for me. I would like to thank the wonderful man in this life, my husband Rateb because of being an endless source of love, strength and determination. I would also like to specially thank my sister Kefaya as well as the amazing family of my husband; Uncle Nabeel and Aunt Salwa, who all have supported me whenever I needed the support through some difficult times. Moreover, a special warm appreciation is extended to my angels Nabeel and Salwa for putting up with a busy mother during the entire time of studying and working on this research.

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الإقرار

أنا الموقعة أدناه، مقدمة الرسالة التي تحمل عنوان:

Continuity Management
The Palestinian Health Care Sector
إدارة الاستمرارية / حالة القطاع الصحي الفلسطيني

اقر بأن ما اشتملت عليه هذه الرسالة إنما هو نتاج جهدي الخاص، باستثناء ما تمت الإشارة إليه حيثما ورد، وأن هذه الرسالة كاملة، أو أي جزء منها لم يُقدم من قبل لنيل أي درجة أو لقب علمي أو بحثي لدى أي مؤسسة تعليمية أو بحثية أخرى.

Declaration

The work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

Student's Name: **اسم الطالبة:**

Signature: **التوقيع:**

Date: **التاريخ:**

Table of abbreviations

Abbreviation	Name
AAAQ	Available, Accessible, Acceptable and of good Quality
BCI	Business Continuity Institute
BCM	Business Continuity Management
BCMS	Business Continuity Management System
BCP	Business Continuity Plan
BIA	Business Impact Analysis
BPHS	Basic Package of Health Services
BS	British Standard
BSI	British Standards Institute
CME	Continued Medical Education
DCPP	Disease Control Priorities Project
DRP	Disaster Recovery Planning
EDL	Essential Drug List
EHR	Electronic Health Record
EMR	Electronic Medical Record
EPR	Electronic Patient Record
EQA	Environment Quality Authority
FCPA	Foreign Corrupt Practices Act
FMEA	Failure Modes and Effects Analysis
GDP	Gross Domestic Product
GHI	Governmental Health Insurance
GIS	Geographic Information System
GMP	Good Manufacturing Practice
GS	Gaza Strip
EHR	Electronic Health Record
HI□	Health Information Strategy
HIS	Health Information System
HTA	Health Technology Assessment
IT	Information Technology
ISO	International Standards Organization
MCP	Multilateral Continuity Planning
MDGs	Millennium Development Goals
MOD	Ministry Of Defence
MOF	Ministry Of Finance
MOH	Ministry Of Health
MPWH	Ministry of Public Works and Housing
MRI	Magnetic Resonance Imaging
NGOs	Non-Governmental Organizations
NHDD	National Health Data Dictionary

Abbreviation	Name
NPP	National Pharmaceutical Policy
OPT	Occupied Palestinian Territory
PA	Palestinian Authority
PCBS	Palestinian Central Bureau of Statistics
PHC	Primary Health Care
PHIC	Palestinian Health Information Centre
PLC	Palestinian Legislative Council
PLO	Palestinian Liberation Organization
PMOH	Palestinian Ministry Of Health
PNA	Palestinian National Authority
QOL	Quality Of Life
RPN	Risk Priority Number
SOPs	Standard Operating Procedures
TIPs	Treatment Improvement Protocols
4Ts	Transfer, Tolerate, Treat and Terminate
UK	United Kingdom
US	United States
UN	United Nations
UNESCAP	United Nations Economic & Social Commission for Asia & the Pacific
UNRWA	United Nations Relief and Work Agency
UPS	Uninterruptible Power Supply
USAID	United States Agency for International Development
WB	West Bank
WHO	World Health Organization

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Continuity Management / The Palestinian Health Care Sector

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Abstract

Business Continuity Management (BCM) is fairly considered a new area of management. It has emerged to minimize and, in many cases, to avert the damaging consequences on businesses when disasters, that will surely strike vast majority of businesses at one time or another, do actually strike.

According to some analysts specialized in Palestinian affairs, after handling Palestinian health sector over to Palestinian Authority (PA) in 1994, Israel bet on collapse of this sector in a maximum period of three months. Unexpectedly, a considerably sweeping rehabilitation has been accomplished. However, as more challenging risks have increasingly become prevalent, sustainable rehabilitation has considerably become out of reach. Sustainability remains a dream for people in Occupied Palestinian Territory (OPT) and a nightmare for policy developer and implementer alike. Accordingly, developing a Business Continuity Plan (BCP) for Palestinian Ministry Of Health (PMOH) has become a necessity that must be seriously taken by top management at this ministry. This research is an attempt to satisfiy this necessity; it aims at preparing a BCP for the largest provider of health services in OPT; Ministry Of Health (MOH).

However, this research starts with reviewing relevant researches and studies on two main concepts; BCM and health systems. This is followed by conducting a number of interviews, documents collection, as well as making observations to sustain the research's findings.

For this research, a "framework for action" drawn by World Health Organization (WHO) for implementation is considered the cornerstone. Its different "building blocks" are thouroughly analyzed using the thematic approach in order to reveal all risks encounter performance of MOH. However, it is confessed that vast majority of previous researches lucubrate in problems outlining while they brief when talking about solutions. Therefore, this research elaborates solutions as well as an analysis of the problem; it suggests a set of mitigation strategies. This is provided within the suggested continuity plan. This plan includes theoretical as well as practical phases that together are depicted through a framework presented by this research. Moreover, recommendations and suggestions for future researches are introduced.

The output of this research is considered to have a great importance to MOH by helping it in providing safer, more sustained and high quality health services. In addition, it is considered beneficial to all parties that are interested in health system in OPT. Finally, it is hoped that this research would build awareness about this field of management and its importance.

Chapter One
Introduction

1.1 Overview

Business interruptions are inevitable; fast changing business conditions are considered huge. Organizations have recently discovered the importance of being effectively prepared to such rapid changes in order to continue their operations. As a result, awareness of what BCM grows all around the World over the last few years and a BCP has become a priority for good management (Gallagher, 2003).

However, as BCM is a relatively new concept compared to most other managerial concepts, there is no commonly accepted definition for it. Paton and Hill (2006) introduce a simple definition for this concept as the process of assessing business risks and then developing strategies to mitigate these risks.

Today's World is encompassed by numerous risks. Similar situation is for Palestine; more challenging risks have become increasingly prevalent. Nevertheless, while many organizations in the World have efficiently prepared for disasters and developed BCPs, Palestinian organizations, including health care ones, are not, even partially, prepared for disasters.

In the event of vast majority of disasters, health care organizations are expected to play a vital role. Therefore, it is important to ensure that this role can be successfully continued, taking into consideration the

potential increase in the demand for health care services during disasters. According to Rozek and Groth (2008), continuity at healthcare organizations does not end; working at such these organization is kept open 24/7. On the other hand, they point out that developing a continuity plan for such organization can be a dispirited and increasingly challenging job.

Literature cites a number of frameworks for BCM. Nevertheless, there is no one plan that would work best for every country or at least for every system in the World; each one has different surrounding circumstances. A plan that is originated at one setting will not work, or ineffectively work, in another. Therefore, this research attempts to develop a BCP for Palestinian health sector, which is crafted to its unique challenges.

1.2 Problem of the research

During last few years, MOH has accomplished significant endeavours to reform and improve its services. However, the priorities of MOH for years 2010 and 2011 highlight definite areas for reform (MOH, 2010; MOH, 2011). There is no doubt that these identified priorities are considered fine. Nevertheless, a significant issue is overlooked among almost all of them; continuity is that issue. Sustainability is pursued with only one priority; appropriate health financing mechanisms.

However, as we all realize, many challenges encounter Palestinian health sector reform process. The main one is Israeli occupation. This

malicious occupation besides all other challenges adversely affects the sustainability of all priorities. Therefore, as a "continuity culture" must be established for each single priority of MOH, this research analyzes and addresses achievements, failures, threats and opportunities of governmental health sector in OPT using the lens of continuity. Moreover, a framework for a continuity plan will be developed to tackle these failures and propose solutions for them as well as to enhance previously accomplished achievements.

1.3 Importance of the research

This study drives its importance from the importance of management discipline it tackles; BCM, as well as tackled sector of health care. Health is the biggest asset that all have; disease or illness can really end life. In addition, BCM is needed to ensure that businesses can continue uninterrupted provision of their services and operations even when disasters strike.

As mentioned formerly, organizations in Palestine do not prepare BCPs. Moreover, they are not aware about the concept. Health organizations in Palestine are not exceptions. There have been no formal attempts to examine the continuity of managing the process of providing health services in OPT particularly in light of current numerous disruptions that interrupt providing health services.

Therefore, this research aims at helping in developing a framework for a continuity plan designated specifically for Palestinian health sector. It

will be the first in Palestine that handles the new concept of BCM whether for health sector or even for any other one.

As a result, this research will add to the literature by providing valuable knowledge about BCM that contributes in understanding and building awareness about the importance of continuity management. Furthermore, it provides a comprehensive analysis for current health sector in OPT, using an international framework developed by WHO, for all interested parties as PA, policymakers, donors, Non-Governmental Organizations (NGO's), all other providers, relevant professional associations, relevant academic institutions as well as researchers.

Finally, it is hoped that this research would serve as a foundation for conducting further future researches on such discipline of management for other health service providers, as well as other sectors than health in OPT.

1.4 Questions of the research

This research aims at answering the following questions:

1. How can PMOH continue its functions related to service delivery?
2. How can PMOH continue its functions related to health workforce?
3. How can PMOH continue its functions related to health information?
4. How can PMOH continue its functions related to medical products and technologies?

5. How can PMOH continue its functions related to health financing?

6. How can PMOH continue its functions related to leadership?

1.5 Objectives of the research

For any research, it is necessary to define its objectives in order to indicate the means to achieve them (Walliman, 2006). The objective of this research study is mainly to develop a BCP framework that supports continuity of MOH's functions. This will be achieved through the following objectives:

1. Exploring and understanding the concept of BCM.
2. Generally analyzing health systems in the World.
3. Thoroughly analyzing Palestinian health situation and systems, particularly the governmental system.

1.6 Structure of the research

The research study is organized into seven chapters. Chapter one outlines the character of the research; it clearly shows the problem statement of the research as well as its importance and objectives. Moreover, the structure of the research is included.

Chapter two reviews relevant literature on the concept of BCM, it's evolution as well as a brief introduction about a well-known international standard. Finally, BCM is put in practice, and a general framework is presented. The different phases of this frame are thoroughly discussed.

Chapter three contains two important parts. Whilst the first one generally investigates health systems in the World, the second investigates health system in Palestine.

Chapter four provides an overview for the methodology chosen to conduct the research. It discusses research purposes, research categories, research validity, data collection methods and sampling techniques as well as research analysis.

Chapter five presents a comprehensive analysis of results obtained from semi-structured interviews. Thematic approach is used at this chapter to analyze data. The central themes of each building block are thoroughly identified and discussed.

Chapter six introduces a general framework for continuity management of governmental health services. Moreover, it discusses the achieved results and puts the introduced framework in practice.

Chapter seven summarizes conclusions, recommendations and suggestions for future researches based on results drawn from previous chapters particularly from chapters of data analysis and discussion.

Chapter Two
BCM Literature Review

2.1 Overview

As stated previously, this chapter reviews relevant literature on the concept of BCM and its evolution. Moreover, it briefly presents an introduction about a very well known and international standard. Finally, BCM is put in practice by thoroughly introducing a general framework.

2.2 Concept of BCM

BCM is fairly new practice. The publications on BCM are spare and narrow (Zalewski et al., 2008). Therefore, many authors recommend various definitions for BCM, each of which protests that the primary objective of BCM is to mitigate the effects of crisis events that threaten and cripple enterprises (Zsidisin, Melnyk & Ragatz, 2005; Gibb & Buchanan, 2006). Shaw and Harrald (2004) broaden the definition to enclose all exercises exert to impede, stand by, recommence and rebuild after a crisis event along with mitigation. These variations in BCM definitions also continue through the field of health services (Donaldson, 2001). According to Adkins, Thornton and Blake (2009) BCM is similarly defined from many different standpoints as information technology, health care management, banking and finance.

Adkins, Thornton and Blake (2009) point out that in recent years, especially after the unforgettable 9/11 attacks, publications of BCM literature are flourished and keep prosperity mostly after Hurricane Katrina

of 2005. They conduct a study explores that the BCM literature is dominated by banking/financial, Information Technology (IT) /computer systems and federal government, against the three dominated disasters; electronic, terrorism and natural.

In 2006, British Standards Institute (BSI) (BSI, 2006) defined BCM as “a holistic management process that identifies potential impacts which threaten an organization and provides a framework for building resilience and the capability for an effective response that safeguards the interests of its key stakeholders, reputation, brand and value creating activities”.

One of the most important assets of any organization that is challenged by being lost is knowledge (Morgan, Doyle & Albres, 2005). Therefore, the initial focus of BCM was on information technology (Zsidisin, Melnyk & Ragatz, 2005). Benyoucef and Forzley (2007) point out that this type of management was later expanded to involve many others functions in organizations as finance and marketing. Moreover, they and Watanabe (2009) greatly eulogize its coverage for relevant entities that react with and share risks with organization as customers and suppliers. Therefore, a new concept of Multilateral Continuity Planning (MCP) extends the concept of BCM beyond the organization’s boundaries, and considers the risks of key suppliers, customers and/ or partners (Hamilton, 2001).

In the same context, awareness of what is BCM grows all around the World over the last few years, particularly after some incidents (Bird,

2007). Herbane (2010) considers the evolution of BCM as being a response "to protect and restore the critical value-generating activities of an organization". Critical that should be considered is not that under normal conditions, but rather that follows a disaster (Myers, 2006).

The term BCM is sometimes used interchangeably with many other terms of which are disaster management (Benyoucef & Forzley, 2007) and crisis management (Blyth, 2009) and many others, though explicit or implicit differences between them exist.

Organizations are now understanding their risks as a result of many crises and disasters in the World as Y2K, earthquakes, hurricanes and many others. Although they increasingly realize the importance of BCM, so many of them refuse to be prepared for risks. Adkins, Thornton and Blake (2009) attribute this refusal for many reasons, most notably are; unrealistic optimism, lack of collaboration, absence of national standards, beside further cost and time needed. Duncan et al. (2011) add more reasons as complexity and forward cost of such planning, besides probable scanty or absence of return, as well as stress of present problems.

2.3 Evolution of BCM

As mentioned earlier, BCM is considered fairly new. However, Benyoucef and Forzley (2007) think that the ark of the prophet Noah was one of the oldest and most acknowledgeable examples of continuity plan. When Noah went aboard the boat to escape, as God commanded him,

along with pairs, male and female, from all the various kinds of birds and other small animals, he aimed at alleviating the negative effects of the flood disaster thus maintaining life on the Earth. This example is mentioned in the Holly Quran (Holly Quran, the believer, 27).

So We inspired to him, "Construct the ship under Our observation, and Our inspiration, and when Our command comes and the oven overflows, put into the ship from each [creature] two mates and your family, except those for whom the decree [of destruction] has proceeded. And do not address Me concerning those who have wronged; indeed, they are to be drowned".

Herbane (2010) thoroughly examines the evolution of BCM. He identifies four historical phases that are distinct, and may overlap. These phases are as follows:

2.3.1 Emerging legislation phase- arrival by stealth (mid-1970s to mid-1990s)

Herbane (2010) considers the introduction of the United States (US) Foreign Corrupt Practices Act (FCPA) to be the spark of BCM development in organizations. This act is contemplated as “an early piece of legislation” deals with crisis management by calling for achieving special arrangements to guard important records from demolition. After this act, a group of US sector-specific acts (legislations) were emerged as in finance, health, telecommunication and transportation sectors. These

legislations, explicitly or implicitly, boost the introduction of Disaster Recovery Planning (DRP) and BCM to safeguard resources and business. However, at initiation, most of BCM's practices are originated from finance sector.

2.3.2 Emerging standards phase- broader influence (mid-1990s to 2001)

The development accelerated during this phase. A group of national standards from some different countries as United Kingdom (UK) and Australia besides US were emerged for different sectors. These standards were revised many times and local ones transformed into international.

2.3.3 The post -9/11 phase- acceleration and focus (2002-2005)

More standards were emerged. Although there is no consensus to what event the diffusion of BCM can be attributed, it may be imputed to the attacks of September 2001 in New York and Washington, which are considered one of the "most acute crises" that change many BCM practices. The huge devastating impact that resulted after the attacks promoted organizations to re-evaluate their existing BCPs, or to activate them. The introduction of guidelines, legislation and standards maintained strong diffusion varying in rate and focus depending on those events that were seriously threatened by the attack with many standards focused on information systems.

2.3.4 Internationalisation phase- competing standards and breakout (2006-2010)

This period was characterized by a hard emulation to become the international standard among numerous competing and often inconvenient standards that initially developed as national ones. These standards ask for mutual working between organizations. The British standard BS 25999, that originates from the international UK-based Business Continuity Institute (BCI), seemed to be "the front-runner in the race". Disagreements about what standard can be considered the single international standard, and about the form of such standard appear. Moreover, counselling on how to create meaningful BCM metrics is "minimal at best" although measurements are important to advise improvements (Strong, 2010).

However, the recent complex need for developing common and applicable standards for BCM across all sectors and for all geographical areas gets greater attention (Bird, 2007). Gallagher (2007) believes that the British standard BS 25999 might increasingly become that standard. Following is a brief introduction about this standard.

2.4 The British standard 25999

The British satandard 25999 was published by BSI in the field of BCM. BS 25999 was written in two parts (BSI, 2009):

Part 1, the Code of Practice, was issued in December 2006. It sets out the processes, principles and terminology of BCM. It provides a basis

for understanding, developing, and implementing business continuity within an organization. Part 2, the Specifications, was published in November 2007. It specifies the reguiremnets for establishing, implementing, operating, monitoring, reviewing, exercising, maintaining and improving a documented Business Continuity Management System (BCMS) within an organization. This part of the standard is founded on Deming model of continuous improvement of Plan-Do-Check-Act cycle (BSI, 2009).

Whilst part one of the standard provides BCM recommendations, its second part provides an auditable framework by a third party, such as BSI management systems, to gain the certification (BSI, 2009).

The International Standards Organisation (ISO) has become strongly interested in BS 25999. It published two new ISOs; ISO 22399 (a Code of Practice) and ISO 22301 (Specification) to replace the two parts of BS 25999. It is fairly new that the ISO 22301 (Specification) was developed; it was in May 2012.

However, the contents of the two parts of the standard BS 25999 are identified in table (2.1).

Table (2.1): Contents of BS 25999; (BSI, 2009)

Contents of Part One	Contents of Part Two
Section 1: Scope and applicability	Section 1: Scope
Section 2: Terms and definitions	Section 2: Terms and definitions
Section 3: Overview of BCM	Section 3: Planning the BCMS (Plan)
Section 4: The BCM policy	Section 4: Implementing and operating the BCMS (Do)
Section 5: BCM programme management	Section 5: Monitoring and reviewing the BCMS (Check)
Section 6: Understanding the organization	Section 6: Maintaining and improving the BCMS (Act)
Section 7: Determining BCM strategies	
Section 8: Developing and implementing a BCM response	
Section 9: Exercising, maintenance, audit and self-assessment of the BCM culture	
Section 10 : Embedding BCM into the organizations culture	

2.5 BCM in practice

As mentioned earlier BCP is considered a fairly new practice. Therefore, there are many different methodologies and templates to prepare BCPs from different perspectives (McDonald, 2007; Hickey, 2007). The best of them is not determined yet, thus needing more research (Zsidisin, Melnyk & Ragatz, 2005). Even in the field of health services, the literature does not provide a clear framework of BCM (Donaldson, 2001). The resulted frameworks reflect and, can be tailored to, satisfy many different perspectives.

However, all proposed methodologies assert the importance of BCM team that must be created to efficiently continue business during

disruptions. This team should be hierarchical in nature and composed of staff with appropriate experiences and skills (Tammineedi, 2010).

According to Myers (2006), good contingency program is characterized by being; workable, cost-effective, flexible and easy to maintain, and that deals in strategies, not detailed procedures.

BSI (2006) specifies six essential elements of BCM lifecycle represented in figure (2.1). However, although the scope and structure of its program can modify to be appropriate to the need of each single organization, all these elements must be accomplished (BSI, 2006).

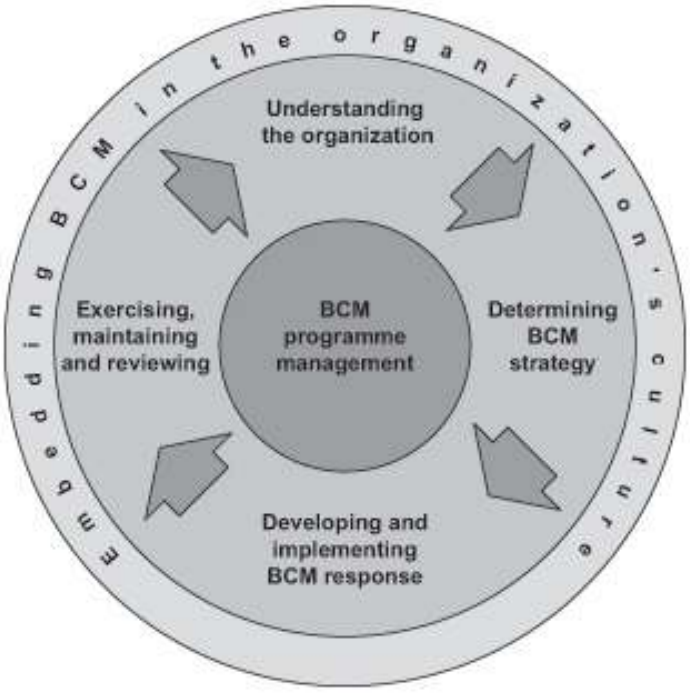

Figure (2.1): The business continuity management lifecycle; BSI (2006)

On the other, many researchers specify what they consider the principal phases of BCM. Amongst them is Gallagher (2003).

Figure (2.2): The principal phases in BCM; Gallagher (2003)

Yet, whatever methodology is undertaken, it becomes obvious that all must share emphasis on all, or even part of, the following phases:

2.5.1 Business (Organization) analysis

Business analysis aims at thoroughly understanding business with emphasis on critical functions (Gibb & Buchanan, 2006). Critical functions are those that must be performed to deliver the key products and services of organization (BSI, 2006). If they stop; the greatest impact (damage) upon business will be, thus having the priority for recovery. According to NORMIT (2009), business analysis is also known as Business Impact Analysis (BIA) whereas, according to Gallagher (2003), BIA is closely related to the second phase; risk analysis. According to BSI (2006), many issues that assist the delivery of products and services, inside and outside the organization, are to be identified in this phase as organization's objectives, activities, assets and resources.

Moreover, all types of used resources are to be considered, in this phase, as people (employees, suppliers, distributors and customers), time, money, machines and facilities, communications, data and information. According to Duncan et al. (2011), the five types of resources that are necessary for ensuring continuity of operations are facilities (physical assets), communication, records and databases, supplies, and human resources.

2.5.2 Risk analysis

Risk analysis stage is considered the cornerstone of BCM. Unfortunatelly, risk has no generally accepted definition (Zsidisin, Melnyk & Ragatz, 2005). The majority of existing definitions for risk in literature override the positive effects that a risk can cause. ISO 31000 defines risk as the "effect of uncertainty on objectives" where an effect is defines as a positive or negative deviation from expectaion (ISO, 2009 a; 2009 b).

Gibb and Buchanan (2006) break risk analysis down into three definite phases, which are risk identification, risk evaluation and BIA.

2.5.2.1 Risk identification

It is a process designed to create a risks register involves all sources of risks that affect the organization, as well as evaluation and any mitigation strategies associated with each risk, which will be selected later during BCM process (Gibb & Buchanan, 2006).

Benyoucef and Forzley (2007) point out that 43% of business interruptions are caused by human errors. Soderholm and Karim (2010) recommend considering those risks with very small probability; since, according to them, once these risks occur, they may result in very sever consequences.

2.5.2.2 Risk evaluation (assessment)

Wallace and Webber (2011) consider risk assessment as the heart of business continuity planning process. Once risks are assessed, priorities for investment can be established (Gibb & Buchanan, 2006). Tammineedi (2010) recommends performing risk assessment for critical activities only among all business activities. Although several methodologies can be used to assess risks and thus prioritize investments, she considers that effective risk assessment could be applied using two parameters. The first is called Risk Priority Number (RPN) that can be identified during a Failure Modes and Effects Analysis (FMEA). RPN is a product of three features of risk; severity, likelihood and detectability before occurrence. Tammineedi points out that the use of RPN only, sometimes, may result in investment for low severity risks. Therefore, she recommends the joint use of another parameter. This parameter is the "criticality no." which is a product of severity and likelihood. However, Dustin (2006) believes that risk assessment skills are new skills that must be acquired by care managers.

2.5.2.3 Business impact analysis

Business Impact Analysis of each individual risk must be identified especially the impact on the critical activities; in order to prepare mitigation strategies. Moreover, this impact identifying of risks on business operations can provide a basis for risk assessment.

According to Gibb and Buchanan (2006), for a risk event, one or more of the following possible impacts can be resulted:

- Financial loss as loss of market share.
- Reputational damage as loss of goodwill or credibility.
- Legal action as contractual breach.

2.5.3 Identifying risk mitigation strategies

Once the business and its associated risks are analyzed, it is now important to determine options for dealing with these risks. According to Gibb and Buchanan (2006), the approached strategies can be classified into two classes; proactive and reactive ones. For each single risk, one or both of the two classes can be used. Tammineedi (2010) recommends weighing the pros and cons of each alternative strategy, including the cost, before going ahead. These criteria of cost and benefits of each strategy are also recommended by Engemann and Henderson (2012). According to Gibb and Buchanan (2006), the choice depends on risk's consequence, and on the effect that a mitigation strategy will have on the level of the risk.

Proactive approaches deal with risks by “transferring, minimizing, absorbing or pooling”, while reactive ones deal with risks through DRPs. However, transferring risk, either totally or partially, is carried out through insurance and outsourcing. Regarding minimizing approaches, they are carried out by avoiding when it is possible, or by reducing or eliminating in situations that are more complex. Redundancy availability within the organization is used as a minimizing approach. However, in the ever most complex situation, where the previous approaches are impossible or uneconomic to be applied, and as a last resort, the organization should absorb the definite risk and allocate resources to deal with it. The organization can cooperate with other organizations and pool the risk together. When one risk neutralizes all protective approaches, it may then be important to develop an inclusive recovery plan to compromise the consequences of this risk when a disaster happen, and thus to reduce effect escalation (Gibb & Buchanan, 2006).

A simplest approach is suggested by Bartlett et al. (2007). This is the 4Ts process of Transfer a risk using insurance or 3rd parties , Tolerate by taking no actions against the risk because of many reasons as its low level of impact or high cost of mitigation strategy, Treat by taking actions that control the risk, and finally, Terminate by changing or removing the risky item if possible.

In this phase, the involvement of department managers is important since according to Myers (2006), they are the only persons who know the alternative strategies that are practical.

2.5.4 Education and training

Active training is important to success. In this stage, Western Australian Government (2009) communicates the importance of BCM to the workforce and clarifies their roles and responsibilities.

Therefore, it is important for active training to select the staff capable to confront complex circumstances when risks appear; in order to realize the benefits of the plan (Paton & Hill, 2006). Wallace and Webber (2011) recommend considering all stakeholders at this stage. Stakeholders are all people with direct and/ or indirect relation with the organization.

2.5.5 Implementation and testing

Having a program on papers only is the “most serious mistake” (Myers, 2006). Accordingly, testing is important to ensure that a plan is workable. An evident demonstrates that majority of BCPs are only textual documents (Zalewski et al., 2008).

According to Gibb and Buchanan (2006), proactive strategies are accomplished at implementation phase by implementing the needed improvements as those to organization’s activities and assets, etc. On the other hand, they consider that mitigation strategies are accomplished at testing phase by testing the DRPs.

According to BSI (2008), there are three types of exercising can be used to test BCPs. The simplest exercise is called "workshop" or "desktop". It focuses on a particular aspect of plan and involves a small group of

people. The medium exercise focuses on more than one aspect of the plan and involves several teams working together. This type of exercises attempts to reflect as realistic an environment as possible. The third type is often considered the most complicated and expensive exercise to conduct; since great attempts must be made to gain much more realism than that involved in the medium testing. In this regard, while Rozek and Groth (2008) believe that BCP is no longer just a phase or project to be implemented when time and resources allow, rather it must be an incessantly-implemented program, Tammineedi (2010) recommends conducting exercises at least once a year in a gradual manner; beginning with simple types and gradually moving towards complex ones.

2.5.6 Monitoring and controlling

At this phase, the effectiveness of tested plans is evaluated. Successful and unsuccessful strategies are highlighted in order to be addressed (Gibb & Buchanan, 2006). Effective audit designates where improvements are required. Moreover, it confirms that designated staff is fully aware of their responsibilities (Gallagher, 2003). Learning from previous lessons, whether the organization itself or others incur, is important (McDonald, 2007).

2.5.7 Review

Planning is an environmentally dependent process. Therefore, reviewing is an endless process; all organizations experience changes over

time. Gallagher (2003) considers “the hard part of BCM is not creating the plan – it is keeping it up to date”. At this phase, BCM strategy is periodically reviewed and updated to verify it remains effective and responsive to new changes that new risks and requirements bring on (Gibb & Buchanan, 2006). Tammineedi (2010) points out that the two typical triggers for BCP review are either calendar; once a year or on any other basis, or event (change) based; when definite events occur.

Chapter Three
Health Systems

3.1 Overview

In this chapter, a general investigation of health systems in the World is conducted. A theoretical background about concept of health system is presented. In addition, this chapter talks about health crisis from the standpoint of WHO as well as about the framework for action that was drawn by it for implementation. Its different building blocks are discussed. In addition, health related millennium development goals are described. Moreover, this chapter gives a glance at evolution of Palestinian health system and highlights obstacles to health reforms, as well as at influential characteristics of health in Palestine.

3.2 Part One: Health systems in the World

3.2.1 Concept of health system

According to WHO (2007), a health system is the one that consists of all people, organizations and actions that primarily work together to maintain, restore and promote health. Among this system, hospitals are "the most complex institutions in our societies". They touch all our lives (Snook, 1992).

3.2.2 Health crisis from the standpoint of WHO

Health systems are being faced with new challenges. They encounter rapid adjustments to adapt these challenges and complexities. Many issues

affect the capacity of health systems to deliver care as governance in health, finance, human resource and others that must be examined (EMRO, 2006).

According to Balabanova (2010), many contemporary health systems, in both richest and developing countries, are challenged by complex emerging conditions. These challenges are made less difficult in countries that become rich before they are old, in comparison to countries that become old before they are rich (Engelhardt, 2008). WHO (2008) identifies that each year, one WHO's member state in five encounters a crisis that jeopardizes the health status by imposing unexpected and drastic demands on health services; thus crippling routine health services and development process. Therefore, it is critical for health sector to be prematurely prepared to effectively and quickly response to emergencies; as rapider response yields to less worse consequences, in addition to allocate sufficient funding (WHO, 2008). However, this effective response can be guaranteed by an effectively developed BCP.

3.2.3 A framework for action

In 2007, WHO (2007) drew up a framework for action to be implemented by itself and within countries. This framework defines a set of inter-dependence building blocks that must be carried out together to achive effective outcomes. These building blocks are represented in the following figure:

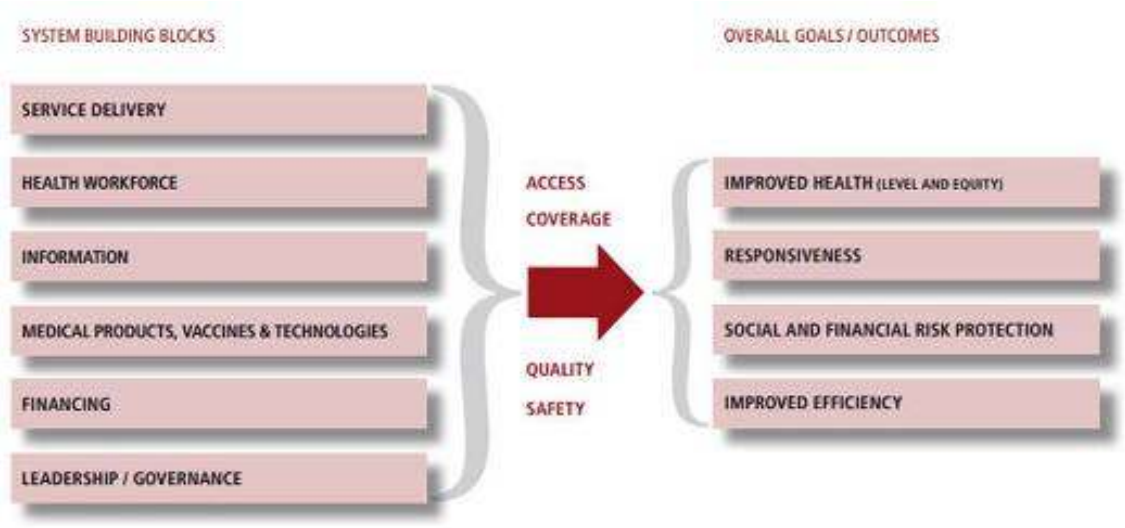

Figure (3.1): The WHO health system framework; WHO (2007)

3.2.3.1 Service delivery

"Good health services"; be they prevention, promotion or treatment for acute and chronic conditions, are those organized and managed to deliver high quality, safe and effective care to whom they need, where they need and when they need (WHO, 2007).

In health care system, each single demand (input), process and end product (output) are unique (Meijboom, Bakx & Westert, 2010). Therefore, no universal mechanism for good and high quality service delivery exists (Glickman et al., 2007). However, there is a consensus about some requirements that are needed to effectively provide the service. These requirements are trained staff, right medicine and equipment, besides sufficient funds (WHO, 2007).

Many authors discuss the right to health as stated in general comment 14 adopted by the United Nations Committee on Economic, Social and Cultural Rights in 2000 (UN, 2012). This comment states that

health goods, facilities and services must be Available, Accessible, Acceptable and of good Quality (AAAQ) (MacNaughton & Hunt, 2009; Kabengele Mpingaa & Chastonaya, 2011).

It is obviously demonstrated that wars seriously challenge health status and delivering health services. Implications outdistance the direct loss of lives and infrastructure. They reach the non-profound cultural and social threats that are not appropriately considered, though they significantly affect the health and well-being of people (Pedersen, 2002) with women and children become the most prevalent long term victims (Ghobarah, Huth & Russett, 2004).

Williamson (1999), Streefland (2005) and many others ascertain that fortifying Primary Health Care (PHC) is the cornerstone of succeeded health reforms; as it was designated to be in 1978 the first International Declaration of Primary Health Care that was emerged in Alma-Ata (WHO, 1978). Nevertheless, the problem of chronic; non-communicable conditions, is currently one of the major causes of death in almost all countries, and it is expected to increase. Therefore, creative, not traditional single-sector, approaches are needed to deal with this problem (WHO, 2008). Accordingly, the importance of informal care in Southern Europe is recognised; the responsibility of care is increasingly shifted from government onto the family (Oudijk, Woittiez & de Boer, 2011). Moreover, in many western countries, a shift from a problem-oriented to a more demand-oriented approach has been witnessed. This shift is popularly

thought to be most effective in generating health advantages (Kupper et al., 2011).

However, it is realized that the negative effects of health risk factors as tobacco, unhealthy diets, physical inactivity and obese have been made to prevent or reduce effects of creative approaches (WHO, 2008). Nevertheless, health promotion and prevention programmes that are being recognized as the most cost effective interventions (WHO, 2008; Parkinson & Goodall, 2010) as they decrease the utilization of expensive curative ones (Oyaya & Rifkin, 2003) are given low priority, and scarce resources are allocated to them (WHO, 2008). Indeed, one major risk that WHO bothers about is that focus be only on secondary and tertiary care at expense of primary care (WHO, 2008). The few existing data indicates that national health budget that is invested in preventive health strategies is very moderate. In the 20th century, "hospital-based care" became the governing structure among others of health care delivery institutions (Glickman et al., 2007).

3.2.3.2 Health workforce

A "well-performing health workforce" (whether he/she health service provider, manager or support worker) is one whose basic goal is to guard and advance health in fair, responsive and efficient way (WHO, 2007).

Human workforce is considered the “ultimate resource of health systems” (Chen et al., 2004) as well as the central to develop health care systems, and to reach the health Millennium Development Goals (MDGs)

(Connella et al., 2007). Therefore, it is important to motivate and satisfy these workers. In this regard, Arnetz (1999) identifies that job satisfaction is determined by different issues as workload, management style, quality of services, etc.

Dussault (2008); Chen et al. (2004); and WHO (2008) discuss the weaknesses and challenges that face health workforce development in nearly all countries, but more intensified in low income ones. They are imbalances in the number, sex and distribution; inconsistency between training programs and required skills; weak productivity; migration; poor work environments; and limited focus on public sector besides weak coordination between other sectors. Among them, one significantly increased problem of health workforce is migration. Connella et al. (2007); Martineau, Decker and Bundred (2004); and Chen et al. (2004) thoroughly discuss this increasing problem, that touches doctors and other health professionals, and call for urgent solutions. In addition, the problem of "skill loss", that also known as "brain drain, is beyond the problem of migration. It hinders migrants from effectively utilize their experience and qualification thus wasting them (Connella et al., 2007). In this regard, WHO (2008) points out that many push and pull factors motivate health professionals to migrate. Accordingly, both recipient and sending countries must work together to reduce, or at least mitigate the damaging effect of this problem (Connella et al., 2007).

3.2.3.3 Health information

A "well functioning information system" is one that collects, analyzes and disseminates dependable and timely information on health status, health determinants and health system performance, on a regular or emergent basis, in order to build strong health management and surveillance system (WHO, 2007).

According to Gerrity (2005); and Tsiknakis, Katehakis and Orphanoudakis (2004), IT benefits all; patients, health professionals, decision-makers and policy formulators. Access to information is a prerequisite to effective monitoring upon the practices of health service provision (Mamdani et al., 2004). One study reports that about one-half of all dangerous remedy errors proceed from incomplete information (Bates & Gawande, 2003). Underdeveloped, inflexible and late health information among providers is the “main resource barrier to effective cooperation”. Incomplete information wastes time, money and effort, and threatens the quality of delivered services (Meijboom, Bajx & Westert, 2010). For these and other causes, more information is necessary to be collected than in the past (Singer, Enthoven & Garber, 2006). Nevertheless, in many countries, the capacity of information systems is limited (WHO, 2008). They are weak in low-income countries (Balabanova et al., 2010).

However, although applying IT solutions in health care is regarded by many to be very costly (Glickman et al., 2007), WHO (2008) supposes that national and global investments in information systems are sufficient

to satisfy ever-growing demand. The matter is about strengthening these systems to match this demand. IT is now a proportional part of Health Information Systems (HIS). Electronic Patient Record (EPR); that also known as Electronic Health Record (EHR) and Electronic Medical Record (EMR), has been ongoing since over a decade.

However, many challenges hinder the implementation of electronic HISs from the perspective of patient, clinician and organization. For example, these HISs are still relying on improperly integrated combination of electronic and paper-based data (O'Connor, Erwin & Dawson, 2009). Helles and Lorensen (2005) declare that only few EPR systems are accomplished due to many matters; human factors, organization, technology, etc, despite of many advantages associated with them. Accordingly, more research is needed on what information are considered “adequate and accurate” to be handled and exchanged relying on EPR.

3.2.3.4 Medical products and technologies

A "well-functioning health system" is one that guarantees safe, equitable, high quality and cost-effective access to essential medical products and technologies (WHO, 2007).

However, although all these circumstances are not fulfilled in many countries (WHO, 2008), medical products and technologies were given the least priority for future development until the end of 2013 by WHO member states (WHO, 2011).

In most countries, computers and its application will play much wider roles in the near future across the entire of health care system though the biggest challenge of limited allocated resources (Kalra & Forslund, 2005). However, drugs and technologies, though they are expensive (Engelhardt, 2008), are now “far cheaper and more widely available than just a few years ago” (Chen et al., 2004). Nevertheless, it is estimated that about half of the overall expenditure on health in WHO member states, is on medical products (WHO, 2008).

In related context, in many developing countries, the greatest problem of medical equipment is that they are inoperative rather than unavailable (Khalaf, 2007). It is estimated that 50% of medical equipment are not used either because of a lack of workers who know how to use them, or because of a lack of maintenance or spare parts (WHO, 2007).

Regarding drugs, the two important issues are inadequate supply of drugs, and unfair and inefficient distribution of these drugs (Mamdani & Bangser, 2004). In low-income countries, procurement and distribution systems for pharmaceuticals are weak (Balabanova et al., 2010). There is no national comprehensive procurement policy (WHO, 1999). However, tendering is becoming the well known tool for purchasing pharmaceuticals for hospitals in the health care industry all over the World with some variations as in the criteria, no of winners, frequency of tenders, etc (Dylst, Vulto & Simoens, 2011). Nevertheless, purchasing has not thoroughly debated in healthcare (Gehmlich, 2008).

3.2.3.5 Health financing

A "good health financing system" is one that ensures efficient, effective and equitable use of the available funds, while trying to develop new sustainable ones (WHO, 2007).

The three main elements of financing of health systems are; funds collection, funds pooling and purchasing effective care. In low-income countries, all these elements frequently fail. Therefore, most care is funded through a combination of out-of-pocket payments and external funds (Balabanova et al., 2010). These health care systems that depend heavily on out-of- pocket payments are considered inequitable (WHO, 2008). Over-provision of services is for the wealthy, comparing with under-provision for the poor (WHO, 2007). On the other hand, raising available funds depending on external funds by donors and lenders is assumed to have a “strong negative” influence on leadership, service delivery and budget; since they focus on “simple and measurable outcomes” in recipient countries (Yazbeck, 2004).

Engelhardt (2008) believes that all health systems; developed and developing alike, are countered with rising costs and limited resources available for health intervention. Therefore, more funds are necessarily needed, especially in poor countries, with more necessary need for developing mechanisms for efficient and equitable prepayment and use of funds (WHO, 2008). Access, quality and equity must not be scarified while

limiting the rise in health care costs (Tsiknakis, Katehakis & Orphanoudakis, 2004).

However, unfortunately, there is no ideal set of strategies that are cost-free, (Donaldson, 2001). As well as, there is no unified approach for appropriate allocation of health care resources among all societies (Engelhardt, 2008).

Accordingly, as mentioned earlier, the challenge in health care is to find and experiment more appropriate strategies and approaches. One of these cost-effective interventions is strengthening PHC (Williamson, 1999).

3.2.3.6 Leadership and governance (stewardship)

This block discusses the surveillance on the whole health system, all health care providers, and on the challenging management for the relation with the community and other systems in the country (WHO, 2007).

WHO (2007) considers this block as “the most complex but critical building block of any health system”. Multisectoral actions are essential for managing health sector since the major determinates of the main risk factors arise from outside the health sector itself (WHO, 2008).

Generally, in the past, a policy developed in one context was assumed applicable in another (Balabanova et al., 2010). At present, it is recognized that priority-setting process in health institutions is context-dependent (Byskov et al., 2009). It requires making multiple hard decisions to efficiently balance between competing demands amongst many needed

essential resources (WHO, 2008). In related context, though WHO (2008) considers that there is no "universal model" to manage health service delivery systems, it supposes that there are constant principles. Of them are; efficient partnership with all providers, avoidance of unessential duplication, bolstering efficient accountability mechanisms that entails fruitful community participation. The same matter is ascertained by Margaret Chan; the director-general of WHO. He declares that "as health systems are highly context-specific, there is no single set of best practices that can be put forward as a model for improved performance". Nevertheless, he adds that well performing health systems share definite characteristics. However**,** Gauld (2005) claims that the New Zealand health system is the "most restructured" one in the World.

It is recognized that in many health systems in the World, policy planning functions are better than policy implementing (Schoenbaum, Afifi & Deckelbaum, 2005) with decentralization regarded as "the panacea to most of the systemic problems bedevilling the health sector" (Oyaya & Rifkin, 2003).

Leadership at health systems in low-income countries is "especially weak", and such systems are regarded among the most corrupted ones in many countries (Balabanova et al., 2010). However, for newly established health ministries, the leadership function has become much more difficult. Kruk and his friend (2010) claim that the Afghanistan Basic Package of Health Services (BPHS) experience is becoming a model for the rehabilitation of health systems in post-conflict countries.

3.2.4 Millennium development goals

In Sep 2000, all United Nations (UN) member states agreed to try to accomplish eight MDGs by the year of 2015, in cooperation with UN's partners in order to push and continue the global development progress. The UN places health at the heart of the millennium development process whereas all MDGs are either directly or indirectly related to health (WHO, 2003) since investment in health systems is a vital prerequisite to achieve all these goals. "The MDGs are inter-dependent; all the MDGs influence health, and health influences all the MDGs" (WHO, 2012).

However, each of eight goals has specific stated targets and indicators to monitor progress which is measured in terms of development progress since 1990.

3.2.4.1 Health related millennium development goals

According to Disease Control Priorities Project (DCPP) (2007), the health related MDGs are the following:

Goal 1: to eradicate extreme poverty and hunger. This goal includes the target of halving, between 1990 and 2015, the proportion of people who suffer from hunger.

Goal 4: to reduce child mortality;

Goal 5: to improve maternal health;

Goal 6: to combat HIV/AIDS, malaria, and other diseases;

Goal 7: to ensure environmental sustainability. This goal includes the target of halving, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.

Goal 8: to develop a global partnership for development. This goal includes the target of providing access to affordable essential medicines in developing countries in cooperation with pharmaceutical companies.

3.2.4.2 Challenges to achieving health related-MDGs

According to the director general of WHO; Margaret Chan, "the health related goals are the least likely to be met" (WHO, 2011).

However, while some states make considerable gains in achieving health-related targets, others remain behind. Often the countries which make the least advancement are those influenced by high levels of conflict, economic crisis and HIV/AIDS (WHO, 2012). The challenges that face the achievements of health related-MDGs are still great all over the Globe. According to United Nations Economic & Social Commission for Asia & the Pacific (UNESCAP) (2007), these challenges in the Asia-Pacific region are presented in the following table.

Table (3.1): Challenges to achieving health related-MDGs in the Asia-Pacific region; (UNESCAP, 2007)

1. Obstacles within health systems
2. Insufficient spending on health
3. Undeveloped health-protection systems
4. Inequitable allocation of health budgets
5. Poor working conditions and professional aspects
6. Poor governance and low efficiency in health systems
7. Weak health information systems
8. Low levels of capacity at local level in decentralized health systems
9. Obstacles outside health systems
10. Exploring the interconnectedness among determinants

3.3 Part two: Health system in Palestine

3.3.1 Evolution of Palestinian health system

After the first Arab-Israeli war in 1948, and the administrative separation of West Bank (WB) and Gaza Strip (GS) between Jordan and Egypt, two separate health systems were emerged with different protocols for health-relevant issues; whereas Jordan supervised the public health system in WB, the system in GS came under Egyptian supervision. Many of these protocols continued to be different up to the establishment of PMOH (Schoenbaum, Afifi & Deckelbaum, 2005).

In 1949, UN established United Nations Relief and Work Agency (UNRWA) to deliver key services (including health ones) to Palestinian

refugees, through regular programmes and those developed in crises (Takkenberg, 2010).

During the period between 48-67, provided health services were mainly rudimental and curative (Giacaman, Abdul-Rahim & Wick, 2003). Therefore, private and charitable health services emerged to counter these deficiencies (Giacaman et al., 2009).

After the Israeli occupation of Palestinian territories in 1967, the public health system was supervised by the Israeli Ministry Of Defence (MOD) not by MOH; forcing the health system in OPT to totally depend on the Israeli health system in order to keep it underdeveloped with sever restrictions on and shortages of infrastructures, services, drugs, staff, and funds (Giacaman et al., 2009). Accordingly, more independent Palestinian health organizations grew and developed with a more active role for the NGOs; with social, political and religious interests, over the private organizations (Giacaman, Abdul-Rahim & Wick, 2003). Private services concentrated on curative services in the larger urban regions (PMRS, 2011) and directed toward wealthy populations (Mataria et al., 2004).

After the signing of the Oslo Peace Accords in 1994, the responsibility for health services provision was transferred to PA, and PMOH was established.

The new status after the establishment of MOH changed the roles of other providers; whereas the private health services expanded, some NGOs

downsized their works. (Giacaman, Abdul-Rahim & Wick, 2003) keeping MOH the primary provider of health services in OPT; but without any comprehensive plan, coordination and regulation with other providers (EMRO, 2006).

The outbreak of the second intifada in 2000 created a new reality on ground affecting all aspects of life in the whole OPT including health parameters, and revoking many health progresses accomplished in past years. Batniji and his friends (2009) classify the resulting threats to health in OPT in two groups; direct ones as gunfire, imprisonment, displacement, infrastructure demolition, resources confiscation, and indirect as restriction on all aspects of life imposed by the Israeli network of checkpoints, barriers, closures and curfews that all have influential effects on access and quality of health.

3.3.2 Obstacles to Palestinian health system reforms

In spite of the massive rebuilding and reform initiatives of the neglected health system that were undertaken by MOH in cooperation with other providers, Mataria et al. (2009) believe that the probability of accomplishing most MDGs in OPT is low.

Giacaman, Abdul-Rahim and Wick (2003) outline the major obstacles face the health system reform initiatives in Palestine:

1. Ongoing conflict in addition to assumption of transition to peace building; the post-Oslo period negatively affected the society, politic,

economy and human; thereby made health initiatives to focus on emergency needs, and made any reform efforts impossible to be accomplished.

2. Weakened Palestinian state structures and institution.

- Nature and functioning of PA structures; dependence and authoritarianism. The emergence of an authoritarian regime constrains the development process; since this regime takes the one-party state. Therefore, PA is characterized by both political and economic dependency.

- Limited capacity of Palestinian health institutions to implement reforms. Building strong institutions in times of instability, with problems in administration and finance is complicated.

3. Donor policies and practices; many donors are involved in the development process; thus creating more disunity than cooperation between those donors whose mechanisms need flexibility, and are not match the reality on the ground, with requirements of unstable “quick fixes”.

4. The policy vacuum; “OPT still lacks a general development policy”. Moreover, although the objectives of the medium term MOH development strategy are admirable, the path to reform is improperly delineated.

3.3.3 Influential characteristics of health in Palestine

Because “the conditions in which people live and work can help to create or destroy their lives” according to the Commission on Social Determinants of Health (WHO, 2006), Hamdan and Defever (2002), and many others believe that without understanding the context in which a health system operates, you cannot understand this system. The same believe can be applied to the Palestinian health context; as many complex characteristics influence the Palestinian health system (Giacaman et al., 2009). Most notably of these characteristics are demographic and social, political, as well as economic ones. An understanding of all these characteristics serves as a background for extra analysis of the Palestinian health care status and system, and accordingly for developing a health continuity plan.

Next is a brief look at each of the previously mentioned characteristics, not the political ones that are thoroughly looked at, which surround and shape the Palestinian health settings.

3.3.3.1 Demographic and social characteristics

According to Batniji et al. (2009), threats to the Palestinian health need social solutions that are beyond the capability of the health sector.

However, at the end of year 2010, the population of the Palestinian people was estimated to be about 4.1 millions, including the Palestinians live in East Jerusalem; distributed as 62.1% in WB and 37.9% in GS, of

whom 44% were registered as refugees (MOH, 2011a). The population density in OPT was 654 persons per km^2 in 2009 distributed as 433 and 4073 persons per km^2 in WB and GS respectively (PCBS, 2011).

Males represented 50.8% of the total population (MOH, 2011a) with a life expectancy at birth for both males and females was 70.5 and 73.2 respectively in year 2009 (PCBS, 2011). Crude birth rate and total fertility rate declined in Palestine during the period 1997 to 2010. Data indicates that the crude birth rate was 42.7 births per one thousand of population, with 6 births per each reproductive woman in 1997, compared with 31.0 and 4.6 respectively in 2010 (MOH, 2011a). However, these two attributes are still considered high, and are predicted to be high mainly due to early marriages of women, and to under-utilization of family planning programmes (Hamdan & Defever, 2002).

Data also indicates that the crude death rate declined progressively from 3.0 per one thousand of population in 2000 to 2.7 in 2010, with about 48% of deaths were caused by cardiovascular and cerebrovascular disease besides cancer deaths (MOH, 2011a).

Moreover, it was found that the Palestinian society is a young one. The percentage of population who were less than 15 years in 2010 was 41.1% (39.2% in the WB and 44.2% in GS), while the percentage of population who were 65 years and above by the mid of 2009 was 2.9 (MOH, 2011a).

In 2010, 85.8% of families were nuclear ones with a decrease in the average family size in 2007 compared with 1997. It decreased from 6.3 to 5.8 persons (PCBS, 2011).

Education in OPT is considered as the only investment in the Palestinian population. Accordingly, an increase in literacy rates for all age groups and both sexes exists. There was a rise in the rates of people with high educational qualifications (intermediate diploma and above) from 11.9% in 2004 to 14.9% in 2009 (PCBS, 2011). Similar increased rates are for health education; as health positions increase considerably. By year 2010, there were about 25,000 health workers in OPT (PHIC, 2011).

3.3.3.2 Political characteristics

The political situation in OPT, particularly the Israeli military occupation, is still considered a top determinant of Quality Of Life (QOL) in OPT (Giacaman et al., 2007) and thus the main impediment to reform in Palestine. Giacaman, Abdul-Rahim and Wick (2003) believe that "serious attempts at health sector reform require a just resolution to the Palestinian-Israeli conflict".

The recent complex political situation in Palestine started on 15 May 1948 when the first Arab-Israeli war began, a day after the Israeli decleration of independence. As a result of this war, Israel occupied large areas in Palestine, causing hundreds of thousands of Palestinians forced out of their homes and bacame refugees.

Before the Israeli occupation in 1967, WB, including East Jerusalem, and GS were administratively come under Jordan and Egypt respectively (Hamdan & Defever, 2002). After the second Arab-Israeli war in 1967, the rest of Palestine (WB including East Jerusalem and GS) was occupied by Israel.

On 9 December 1987, the first Palestinian intifada against the continued Israeli military occupation took place in WB and GS.

On 13 Sep 1993, the Palestinian Liberation Organization (PLO) officially assigned the historic declaration of principles on interim self-government arrangements causing the first intifada to end. This declaration was intended to be the corner stone for future negotiations. It aims to resolve the prolonged ongoing Palestinian-Israeli conflict and to establish the Palestinian National Authority (PNA) (Giacaman et al., 2009).

In 1994, a phased transfer of power and responsibilities to PA, including the overall responsibility of health care sector, was achieved.

The Oslo agreements partition WB into three areas; A, B and C. "Area A" is made under complete control, for both security and civil affairs, by PA. This area covers the main cities of WB, that holds only about 3% of land in comparison with 70% that is under complete Israeli civil and security control in "area C", which is characterized by low population density and rich natural resources. "Area B", which holds the remaining 27% of land, is made under partial Palestinian control; PA

maintains control over civil affairs but shares the security ones with Israel (Giacaman et al., 2009). This political division makes the performance of MOH in almost all areas of WB weak or even prohibited.

In fact, however, although an obvious progress towards building the Palestinian state started after the signing of the accords, continuous crisis were encountered. These crises were marked by the Israeli reinvasion of the Palestinian controlled areas, tight restrictions on movement, growing exportation of natural resources, and sharp economic deterioration (Giacaman, Abdul-Rahim & Wick, 2003).

At the end of Sep 2000, the second Palestinian intifada broke out and a set of accelerated political events deteriorated the situation on ground, resulting in PNA collapsing (Giacaman et al., 2009).

In June 2002, the Israeli government decided to construct the massive "wall" between Israel and WB. This wall severely restricted movement, confiscated Palestinian natural resources and worsened the economic situation. As a result, access for patients and health workforce, as well as for medical equipment and essential drugs was complicated or extremely prevented.

On 25 Jan 2006, the elections for the Palestinian Legislative Council (PLC) were held. "Hamas"; the islamic resistance movement, won a majority of seats in the Palestinian parliament. Following these elections and the formation of Hams-led cabinet, both Israel and the international donors punished the Palestinians for this unexpected achievements by

Hamas, thus created a sever financial and political crisis (Giacaman, et al 2009). Moreover, inter-Palestinian violent clashes progressively rose between the forces of the two Palestinian political organizations, "Fatah" and Hamas, causing the latter to take over GS in June 2007, and thus compounding the divide between the two organizations.

Moreover, Israeli aggression against Palestinians intensified. On 27 December 2008, the Gaza war took place. By the end of 2009, the number of martyrs killed during the second intifada reached unprecedented levels of 7235 (of whom 2183 and 5015 were from WB and GS respectively) (PCBS, 2011), comparing with about 1500 in the first intifada, and about more than 35000 injuries (Batniji et al., 2009). In this regard, Rubenstein and Bittle (2010) thoroughly categorize violations in OPT on patients and medical functions during 1989-2008.

So far, uncertainty is dominant the outcomes of negotiations process to reach a final agreement. Many obstacles face this process namely the return of refugees, the settlement, the status of Jerusalem, and the control over borders and water, etc (Hamdan & Defever, 2002). PNA currently still lacks control over both borders and natural resources. Besides that, according to 2008 data, the number of settlers in WB reached 500 thousand live in 144 settlements in WB, 26% of these were in Jerusalem governorate, whereas on the 1st of January 2012, about more than 4.7 million Palestinians were registered as Palestine refugees (UNRWA, 2012).

3.3.3.3 Economic characteristics

According to Pedersen (2002), poverty is considered the superior factor for illness and death. Generally speaking, economic status of people in one country does seriously affect their health status.

However, prior to Oslo agreement, the Palestinian economy was heavily reliant on the Israeli economy for both trade and labour (Hamdan & Defever, 2002). After the signing of Oslo agreement, massive international aids were poured into Palestine. Nevertheless, a sever economic deprivation continued because of a highly intricate situation on the ground (Giacaman, Abdul-Rahim & Wick, 2003).

A shocking and sever impoverishment faced OPT following the explosion of the second intifada. Its consequences affected primarily the most vulnerable groups among the population as women, children, elderly, handicapped and village dwellers (Mataria et al., 2006). The Palestinian economy by the beginning of 2002 suffered from an “unprecedented crisis with at least half of the population living under the poverty line”; resulting in collapsing of private sector, and shifting reform initiatives towards relief. These will together have sever long term effects on people especially the most marginalized groups (Giacaman, Abdul-Rahim & Wick, 2003). To soften this crisis, PNA put more people on the governmental payroll; resulting in 60% increase in governmental sector employment in 2006 comparing with year 1999. This emergent situation creates about fourth of the Palestinian people; workers and their dependents, dependent on

government-paid wages (Mataria et al., 2009). In response to this situation, PNA received more donations from international donors.

In Jan 2006, international funding and confiscated Palestinian taxes by Israel, which jointly represent 75% of the Palestinian budget (Giacaman, et al., 2009), were withheld as a mean of punishment of Palestinians for the unexpected achievements by Hamas in elections, as mentioned earlier, thereby increasing the burden on PNA (Giacaman et al., 2009). As a result, PNA became unable to pay salaries of governmental sector workers. This situation led to widespread strikes that created sever consequences on all contexts.

Figures released by a document of Palestinian Central Bureau of Statistics (PCBS); Palestine in figures, 2010 (2011), indicates that the unemployment rate in OPT, which is considered by World Bank (2011) in 2011 amongst the highest in the World during the past decade, was concentrated in 2009 among the youth aged (15-24) years, with a rate of 38.9%, following with 24.9% among persons aged (25-34). The Gross Domestic Product (GDP) in 2008 was 4.820US $ billion with a GDP per capita in the same year of 1,340.4 US $.

According to Hamdan and Defever (2002), the considerable losses in the Palestinian economy are created by the acute decline in PNA's revenues besides the devastation of some basic infrastructures and private properties. However, there was a Palestinian economic growth in 2010. This significant progress of PA in increasing domestic resources by 2010

resulted primarily from the increased tax revenues. Nevertheless, this growth does not appear sustainable since it is still primarily driven by donors and reflects recovery from the very poor situation arrived at during the second intifada, and that still continues, and because it is restricted by Israeli takeover on resources; land, water and export market (World Bank, 2011).

Generally speaking, PNA currently still lacks control over both borders and natural resources; the two important prerequisites needed to enhance an economic development (Hamdan & Defever, 2002).

Chapter Four
Methodology

4.1 Overview

As stated in chapter one, this research aims at developing a continuity plan for the Palestinian health care sector. In this chapter, an overview for the methodology chosen to conduct the research is provided. Furthermore, research purposes, research categories, research validity, data collection methods, sampling techniques as well as research analysis are discussed.

4.2 Types of purposes

The utmost purposes of a research are to draw up questions and then to answer them. However, as no researcher can ask all questions and find all answers to one question, it is imperative to determine the most needed questions and answers by defining the purpose of such research (Dane, 1990). Historically, qualitative research can be classified according to its purpose into three main categories; exploratory, descriptive and explanatory. A single research can have more than one of these purposes (Saundres, Lewis & Thornhill, 2000).

4.2.1 Descriptive research

Descriptive researches are conducted to describe the phenomenon that is known (Marshall & Rossman, 2006) by reducing complicated things to their components parts (Miles & Huberman, 1994). According to Jackson (1994), all researches do partly have a descriptive purpose.

4.2.2 Explanatory research

Marshall and Rossman (2006) state that the function of explanatory research is to explain patterns related to the phenomenon by identifying plausible relationships. It entails examining a cause-effect relation between two or more phenomena (Dane, 1990). In other words, the function of explanatory research is to thoroughly continue that of descriptive by going beyond describing the phenomenon to explaining it (Marshall & Rossman, 2006).

4.2.3 Exploratory research

Exploratory research investigates the phenomenon that is little-understood (Marshall & Rossman, 2006) by taking it from various angles and putting under light to unearth new meanings (Robson, 2002). Generally, qualitative studies are exploratory researches (Miles & Huberman, 1994) which may sometimes be very complex (Dane, 1990).

In short, Baraghani (2007) summarizes the justifications of use for the three types; while exploratory is used for unknown problems; descriptive is used for understood problems, and finally explanatory for clearly defined ones.

In this study, an exploratory research was conducted. This research looks at the Palestinian health system, and gathers a wide range of data and impressions in order to understand the system in a new way. Since the studies that assess the Palestinian health system from the scope of

continuity management, that in term is still globally understood, are very few, a strong belief that an exploratory research best suites the purpose of this research does exist.

4.3 Qualitative and quantitative

Researches can be classified according to the process in which data is collected and analyzed into two approaches; qualitative and quantitative.

Researchers in the domain of social sciences cognize the limitations of quantitative approaches for understanding situations which contain complex interaction of human behaviours and interpersonal relationships, cultural transitions, economics and politics. Accordingly, qualitative approaches have become increasingly desirable, especially in field of social sciences (Denzin & Lincoln, 2000).

Thomas (2003) provides what he considers the simplest distinction between the two approaches. According to him, qualitative researches involve describing kinds of the characteristics of people and events. They do not focus attention on measurements and amounts. On the other hand, quantitative researches involve describing measurements and amounts of the characteristics of people and events. In other words, while qualitative tools analyze the reasons behind a particular phenomenon, quantitative tools analyze the phenomenon itself, separated from human perceptions of why reasons (Creswell, 2003).

Table (4.1) provides a summary of the main differences between qualitative and quantitative researches.

Table (4.1): Key differences between qualitative and quantitative researches; (Creswell, 2003)

Qualitative research	Quantitative research
The aim is to discover new ideas and concepts	The aim is to explain what is already observed
Qualitative data type is in the form of words or/and images	Quantitative data type is in the form of numbers and statistics
How and why research questions	How many and how much research questions
Used tools are interviewing, observation and document analysis	Generally used tool is surveying
Samples are small and selective	Samples are large and random
Validity is through triangulation	Validity is through statistical and logical methods
Subjective approach	Objective approach
Inductive approach to data analysis	Deductive approach to data analysis
Thematic exploration analysis	Statistical analysis

4.4 Validity of research

One of the most important features of a successful research is the validity of its data. Validity is interested in truth worth of conclusions (O'leary, 2004). Generally, validity relates to the quality of data and analysis used in the research (Denscombe, 2002).

4.4.1 Types of validity

There are two ways used to validate the research findings; internal and external validities.

4.4.1.1 Internal validity

According to Willis (2007), internal validity asks whether the research is replicable; if another person searches the phenomenon again, will he/ she reach the same results as the original research; if the data/ results gained are alike under repeated trials (O'leary, 2004). If a research is not replicable, it has little value (Willis, 2007).

4.4.1.2 External validity

External validity concerns with the degree to which the research data can be generalized beyond the research itself (Dane, 1990). According to Campbell and Stanley (1963), external validity "asks the questions of generalizability; to what populations, settings, treatment variables, and measurement variables can this effect be generalized? ".

4.4.2 Validity of qualitative research

Since qualitative research does not work with numbers, its validity cannot be simply measured through calculations. Therefore, new measures have been identified, of which the most important is triangulation (Hair et al, 2011).

4.4.2.1 Triangulation

Guion, Diehl and McDonald (2011) represent several types of triangulation. Table (4.2) displays these different types.

Table (4.2): Types of triangulations; Guion, Diehl & McDonald (2011)

Data triangulation	Involves the use of different sources of information in order to increase the validity of a study
Investigator triangulation	Involves the use of several different investigators in the analysis process
Theory triangulation	Involves the use of multiple perspectives to interpret a single set of data
Environmental triangulation	Involves the use of different locations, settings and other key factors related to the environment in which the study took place such as time, day or season
Methodological triangulation	Involves the use of multiple qualitative and/or quantitative methods to study the program

However, qualitative researcher cannot use all four types of triangulation at once in a single research (Hair et al., 2011); they consume much time (Guion, Diehl & McDonald, 2011). Therefore, for this research, methodological, data and environmental triangulations were used to validate the research conclusions. Data was collected from different sources using different methods at different settings. Data was collected from literature, people and environment, through different data collecting techniques; interviews, observations and extensive document analysis. Besides, data was collected from different locations and at different times. More illustrations about the environment in which this study is conducted are introduced later through this research.

4.4.2.2 Other approaches for validity of qualitative research

However, Willis (2007) believes that even triangulation cannot fit some forms of researches. Therefore, he suggests many alternative approaches for validity. A number of these approaches were used in this

research to validate the confidence in results obtained. Following are these used approaches.

1. Member check; to check the formulated conclusions with the participants in such research. For this research, some interviewees were asked about what do they think about its conclusions. Moreover, to check the validity of the proposed framework in particular, some key persons at MOH were asked about it. These persons are primarily directors at MOH.

2. Participatory research; to ask the participants to actively participate in formulation of conclusions. For this research, some carefully selected persons from MOH were asked to take a part in formulating its conclusions. These persons are particularly general directors at MOH.

3. Extended experience in the environment; to spend more time in the environment under study in order to understand it more. This way was used for this research; conducting interviews lasted for about seven months with each single interview lasted between 25 and 180 minutes, thus the researcher experienced the environment well.

4.5 Methods of data collection

A number of data collection methods are advised for qualitative researchs (Walliman, 2006). Mason (2002) thoroughly examines three of the main methods used for collecting qualitative data. They are interviews, observations and document (archive) analysis. All these methods were used

to gather the needed data for this research. Following is a brief introduction for each.

4.5.1 Interviews

Interviews are one of the most commonly used methods in qualitative research (Mason, 2002). The process of interviewing entails asking questions, listening to individuals, and promoting conversation in order to gain information and understanding of opinions (Walliman, 2006; O'leary, 2004).

Walliman (2006) and O'Leary (2004) mention three types of interviews; structured with standardized questions and closed format answers, that minimizes personal interactions; unstructured with a flexible format without closed format answers, that is suitable for ongoing conversation; and finally semi structured interview that combines sections from the two previously mentioned types with standardized and open-format questions.

According to Marshall and Rossman (2006), one of the major limitations of interviews is the involvement of personal interaction. They may lack cooperation from interviewees. On the other hand, instant clarification and follow-ups are amongst their greatest strengths (Marshall & Rossman, 2006).

For this study, a considerably large number of semi-structured interviews with open-ended questions was used.

4.5.1.1 Questions of interviews

Yin (2009) believes that the process of defining the research questions as probably the most important task. Questions of interviews must be well defined. For this research, a set of questions for each single block of the six WHO building blocks was carefully developed and asked for a selected list of interviewees. Six different templates of questions were developed with some questions are common between some templates. See appendix 2 for comprehensive templates of interviews' questions.

4.5.2 Observations

Observation may be a useful method to gain a specific information from a specific angle (Mason, 2002). It is a method aims at gaining an understanding by observing, experiencing, asking and listening for a long period (Walliman, 2006). The process of observation is very exhausting and challenging, even more than in any other qualitative method (Mason, 2002; O'Leary, 2004). It embraces noting of incidents, behaviours and objects in the circumstances in which the research is conducted (Marshall & Rossman, 2006). In observation, the researcher uses the suitable full range of his/ her senses (O'Leary, 2004) through immersing himself/ herself in the environment of study (Mason, 2002).

Moreover, observations also more costly (Foster, 2006). O'Leary (2004); Foster (2006); and many others discuss the advantages and limitations of using observations. Amongst them are the biases come from the observers and the people who observe; people may consciously or

unconsciously, change their behaviours when they are observed, besides observations are interpreted by the lens of the observer (Foster, 2006).

However, almost all interviews can be considered observational methods. While the observer is nearly external to the environment he/ she observes; with interviews, it is usual for the observer to be the interviewer and be a part of the total environment in which observations are made. More observations that are accurate can be generated from an interviewer (observer) and a person responding to him (Travers, 1964).

For this study, many observations were made during conducting interviews.

4.5.3 Document (Archive) analysis

According to O'Leary (2004), the process of analyzing documents entails collecting, reviewing, examining and analyzing relevant documents. O'Leary (2004) points out to the confusion exists upon the term document; it refers "to more than just paper". Documents can refer to many things as research journals, audio, photographs, censuses, video sources, maps, etc (Marshall & Rossman, 2006; O'Leary, 2004; Finnegan, 2006).

Historical documents review is considered imperative for every qualitative research (Marshall & Rossman, 2006). Marshall and Rossman (2006) consider the unobtrusiveness of this method to be its enormous strength. On the other hand, they and O'leary (2004) alert from the

potential sources of bias associated with this process; author's bias and researcher's bias.

For this study, once the problem of this research was formulated, a focused literature review about the three main concepts; BCM, health system in the World, and Palestinian health system was carried out. However, since BCM is new, the existing literatures on this area of management are relatively few, and the vast majority of them discuss BCM from some definite perspectives.

Table (4.3) shows some advantages and limitations of the used data-collection methods as adapted from Creswell (2009).

Table (4.3): Advantages and limitations of data-collection methods; Creswell (2009)

Data collection method	Advantages	Limitations
Interviews	• Useful when participants cannot be directly observed • Participants can provide historical information • Allow researcher to control over the line of questioning	• Provide indirect information filtered through the views of interviewees • Researcher's presence may bias responses
Observations	• Researcher has a first-hand experience with participant • Researcher can record information as it occurs • Unusual aspects can be noticed during observation • Useful in exploring topics that may be uncomfortable for participants to discuss	• Private information may be observed that researcher cannot report • Researcher may not have good attending and observing skills • Certain participants (e.g., children) may present special problems in gaining rapport
Documents	• Enable a researcher to obtain language and words of participants • Can be accessed at a time convenient to researcher • Represent data which is thoughtful in that participants have given attention to compiling it • As written evidences, they save a researcher time and expense of transcribing	• May be protected; unavailable to public or private access • Require the researcher to search out the information in hard-to find places • Require transcribing or optically scanning for computer entry • Materials may be incomplete • Documents may not be authentic or accurate

4.6 Sampling

Sampling is the process of selecting a small group from a larger one. According to Walliman (2006), in order to successfully draw generalized conclusions about a population from a sample, a representative sample must be chosen; the reliability of generalization is greatly affected by the selected sample. Walliman points out that there are two basic types of sampling procedure; probability sampling that based on random selection, and non-probability sampling that based on non-random selection. The use of these procedures has many types. Amongst the non-probability types is the purposive sampling; where the researcher chooses the sample that he/ she considers ideal relying on knowledge on certain criteria (Walliman, 2006).

In this study, the non-probability type with purposive sampling was used. The sample of interviewees was carefully identified such that they are directly concerned with one or more of the six building blocks covered in this research, and have the experience and knowledge that asked for such research. Among them, considerable numbers are key decision makers at MOH; directors and general directors as well as the deputy minister.

According to Walliman (2006), there is “no sample that will be exactly representative of a population”. Moreover, he considers the random techniques to be more reliable and representative than the non-random. However, O’Leary (2004) gives justifications for researchers who look at

understanding the population rather than at representativeness; “rich understanding that may come from the few, rather than the many”.

Once a suitable sampling method is selected, a sample size is to be selected. The bigger it is, the more it will be representative (Walliman, 2006). In this research, the list of targeted interviewees was huge. Interviewees can be classified into three main groups; personnel from general administration of hospitals at MOH, personnel from other administrations at MOH; and personnel from six governmental hospitals. These hospitals are Rafidia, Thabit Thabit, Al Wattani, Khaleel Sulaiman, Darweesh Nazzal and Alia hospitals. See appendix 1 for a comprehensive list of interviewees. Conducting interviews was started with personnel from hospitals; they can provide the researcher with detailed data on the domain of this research with limited restrictions on time. However, the choice to consider some specific hospitals can be considered representative as all governmental health institutions operate under the same health system. Thus, this sample can highlight the prevalent problems in the entire governmental health system in Palestinian.

4.7 Methodology of the research

As mentioned earlier, three methods were used for this study to collect data. They are literature, interviews and observations. However, the resulted data was analyzed to introduce a generally developed framework for a continuity plan for the governmental health sector. The validity of the data and results, including the framework, was checked. Used approaches

have been discussed earlier during this chapter, particularly at section 4.4. Finally, based on these results and discussion, conclusions, recommendations and suggestions for future researches are introduced. However, the used methodology for this research is summarized by figure (4.1).

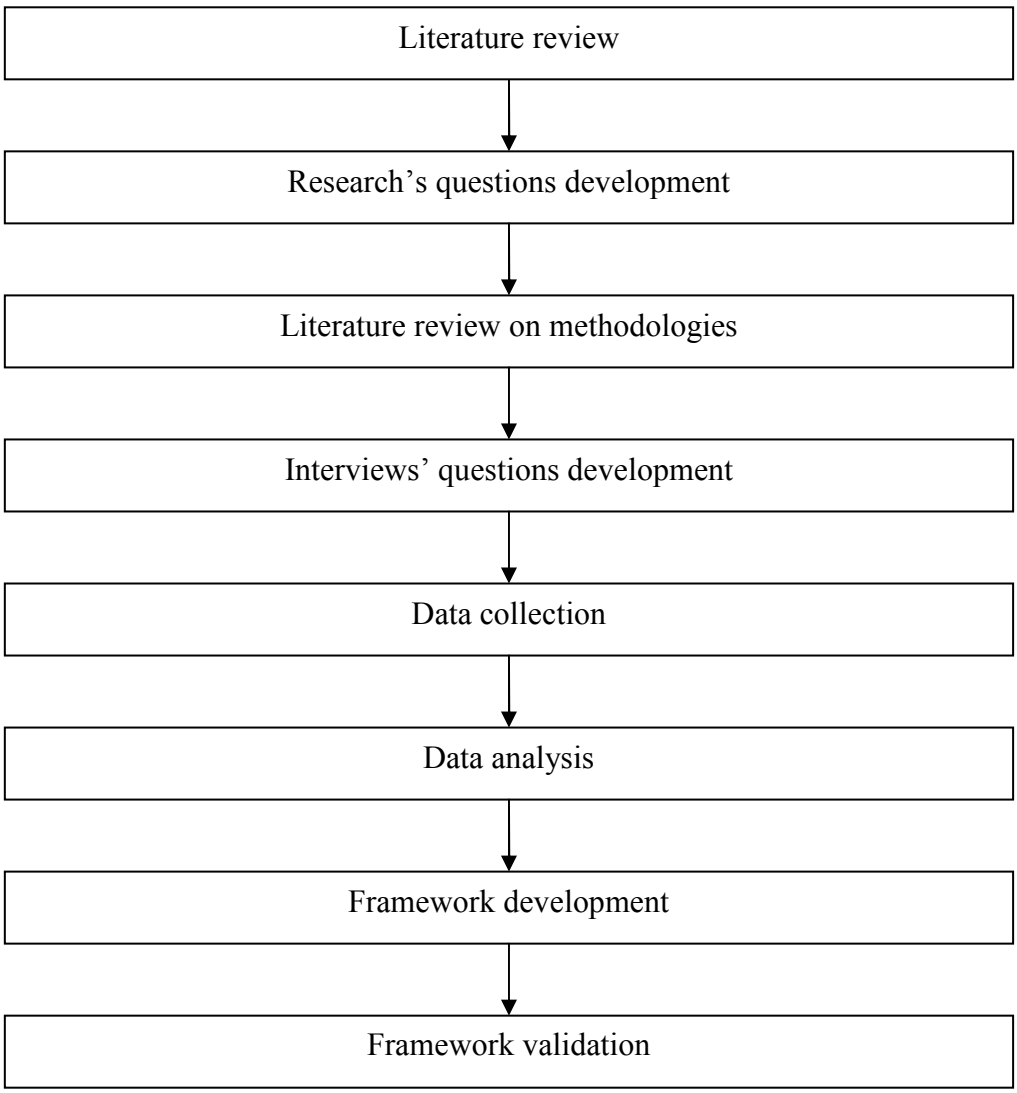

Figure (4.1): Methodology of the research

4.8 Analysis

4.8.1 Approaches of analysis

Analyzing process is the way of reasoning (Walliman, 2006). It aims at drawing meaningful conclusions. Several approaches are available for researches' analysis. According to its logic, a research can be classified; whether it moves from generalization to specification or vice versa, into two main approaches; deductive vs. inductive (Walliman, 2006).

4.8.1.1 Deduction

Deduction reasoning is strongly associated with qualitative research (O'leary, 2004). A deductive approach starts from generalizations, and through logical controversy, derives a specific conclusion. Initial generalization bases on specific theories (Walliman, 2006) which are tested through observations (O'leary, 2004). Serious problems appear when these theories are falsified and thus the generalizations (Walliman, 2006).

4.8.1.2 Induction

Induction is the earliest and most popular. It is strongly associated with quantitative research (O'leary, 2004). It involves making general conclusions from specific observations (Walliman, 2006). Some conditions must be satisfied in order to use this approach; the existence of a large number of observations that must be repeated under a large range of circumstances with no one observation contradicts the derived generalization. How large the number of observations and the range of

circumstance are two problems with the use of this approach (Walliman, 2006).

4.8.2 Thematic analysis

Although qualitative researches enjoy a rising publicity, there is a regrettable lack of tools available for analyzing them (Attride-Stirling, 2000). Consequently, a strong need for more sophisticated tools for qualitative analysis exists. However, at the time that some statistical approaches are available for analyzing quantitative data, qualitative data is analyzed using thematic approach (O'leary, 2004). Attride-Stirling (2001) considers this technique as a "robust and highly sensitive tool" for such analysis

According to Creswell (2009), qualitative data analyzing process entails "making sense out of text and image data". This process is a difficult one; it is often concurrently carried with data collection process that generates a progressive understanding; thereby gradually adjust what have been found (Walliman, 2006).

Attride-Stirling (2001) makes thematic network similar to a "web-like illustration" that summarizes a piece of text into main themes. He splits the full analysis process into three sequential stages; reduction of text, exploration of text and finally integration of exploration.

The process starts by studying the research text to pinpoint general topics available. These topics, also called coding schemes, would be used

to enumerate a group of words or subjects, that describes general meaning of interviewees stories (Jaaron & Backhouse, 2011). This process that reduces the data is called coding framework of analysis. It may be established on many bases (Attride-Stirling, 2001). According to O'leary (2004), exploring words, that leads to themes, can be through their repetition or their context and usage.

After that, textual transcripts are read again (Jaaron & Backhouse, 2011). They are divided into meaningful and explicit text segments (Attride-Stirling, 2001). These segments are then given codes (words) that describe the explored meaning and relate to the former coding framework (Jaaron & Backhouse, 2011).

By careful reading of coded text segments and clustering related codes, basic themes are abstracted. These themes are then clustered around more central themes (Jaaron & Backhouse, 2011).

However, for this research, an inductive analysis approach was used, with thematic process that is associated with qualitative researches. This use of inductive approach can be accounted for the aim of making general conclusions from what the researcher experienced during conducting this research.

Chapter Five
Data Analysis and Results

5.1 Overview

Since a clear analysis of one problem is essential in process of solving it, this chapter presents an analysis of data obtained from interviews using thematic analysis approach. However, as mentioned earlier, the framework for action drawn by WHO is handled for this research. It is found that handling such frame in conducting this research does highly suit its purpose. In addressing a health system, it is a must to expatiate on all, different but interrelated, building blocks identified by WHO in one way or another.

For each block of six ones; codes, basic and central themes are introduced. Moreover, all central themes related to each single block are thoroughly identified.

5.2 Analysis for block 1; service delivery

The full process of thematically analyzing service delivery block identifies a set of related codes, as well as basic and central themes. Table (5.1) provides a summary of these codes and themes. However, emerged central themes are used later for extensive interpretations.

Table (5.1): Summary of identified codes, basic and central themes of service delivery block

Codes	Issues discussed	Basic themes	Central themes
• Unsustainability • Duplication • Preventive programs • Improvements • Requirements	• Limited primary services • Duplicated secondary services • Unsustainable tertiary services • Quality degradation • Bad distribution of services among different levels • Ineffective internal referrals • Limited programs regarding chronic diseases • Successful programs regarding acute diseases • Tele consulting system, TIPs, committees	• Problematic services' expansion • Successful vs. limited diseases' fighting programs • New interventions for service improvement	Improvements and deficiencies
• Minimization • Prioritization	• Problematic mechanisms of pricing & distribution • Unjustified referrals • Localization of services • Prioritization for services of other Palestinian providers	• Continued problems • Managing & minimizing efforts	Outside treatment
• Shortage • Inefficiency	• Overlapping concepts • Media exaggeration • Lack of statistics • Lack of confidence • Lack of regulations • Ineffective investigatory committee • Absence of insurance	• Obstacles • Violations	Medical errors
• Achievements • Needs	• Quality planning department & quality coordinators • Funds, training, power & confidence • Quality initiatives & quality standards	• Attention to quality • Requirements • Interventions	Quality improvements
• Absence • Poorness	• Absence of a formal organizational structure • Absence of a national plan • Absence of awareness, training & assessment • Poor supplies	• Malfunctions	Preparedness for emergencies

5.2.1 Theme one; improvements and deficiencies

Interviewees thoroughly discussed this theme. They identified that MOH has expanded clearly its network of facilities by increasing and developing infrastructure projects (see block 4.1). They saw such expansion problematic; it is not built on effective assessment for needs, and thus comes at expense of improving services' quality. However, theme four at this block thoroughly discusses some accomplishments as well as deficiencies of MOH regarding improving services' quality.

In addition, interviewees identified that MOH has expanded its services. They also saw such expansion problematic; MOH focuses on expanding secondary and tertiary services at expense of primary ones. The scope of available primary services, especially preventive and promotional ones, has become limited. Moreover, they believed that accomplished expansion in many secondary services creates duplication between different providers as well as within institutions of MOH itself, although there are some modest attempts, which all do not fall within a strict and clear mechanism which seek to control this phenomenon. Furthermore, they recognized that current expansion of tertiary services is limited but is proposed to be significantly increased. They queried about sustainability of such increase in light of available material resources and human expertises. In addition, they were dissatisfied with distribution of health service's levels among different types of its health institutions, as well as with current internal referral system between all health care levels; primary, secondary and tertiary. However, external referral system is discussed later.

Regarding MOH's programs of fighting chronic diseases, interviewees believed that they are still much less than needed although MOH has paid an attention to them, and has accomplished some achievements. Many health-damaging behaviours such as weight gain, lack of exercises, smoking and excessive use of antibiotics are prevalent within Palestinians. On the other hand, they believed that programs of fighting many of acute; communicable diseases are extremely successful, especially that related to child and mother health. Nevertheless, they indicated that MOH still needs more efforts to control and eliminate the few challenging remaining diseases. They recognised that MOH's efforts of paying attention to health of people in all life stages are not integrative. There is a gap in strategic plans developed to take care of some stages, especially adolescence, youth as well as aging. In addition, process of preparing unified written national Treatment Improvement Protocols (TIPs) for diseases is limited and slow. However, they eulogized accomplished protocols for scheduling surgical operation dates depends on emergent-cases priority, by an administrative officer, in addition to activation of tele-consulting system after implementing the first phase of telemedicine project. This project enables Palestinian practitioners to communicate with their counterparts inside and, pretty, outside OPT.

Finally, all interviewees declared that MOH has established many committees in its institutions as those for quality, infection control, and scientific committees. However, activities of these committees need to be re-organized and activated in order to satisfy the role assigned to them,

with a need for many additional ones. However, more improvements and deficiencies regarding provided services are presented later during analyzing remaining blocks.

5.2.2 Theme two; outside treatment

The issue of external treatment referrals outside governmental health institutions has created a chronic crisis that adversely affects the confidence in MOH. However, interviewees admitted that MOH seeks to minimize such referrals that burthen its budget annually. In spite of this, they believed that controlling regulations are still unable to solve some related problems especially when referrals occur for unjustified reasons.

However, MOH has settled many services in local institutions, in particular in governmental ones. Nevertheless, interviewees doubted about the sustainability of such interventions, in particular for tertiary services. However, interviewees valued MOH's actions to give a priority in such referrals for private and NGOs institutions inside OPT at expense of those outside, with much more priority given for hospitals in East Jerusalem; to enhance the Palestinian steadfastness in the holly city. Nevertheless, they nibbled defects exist in mechanism of implementation; in pricing of, paying for, and distributing of purchased services. Bills of outside treatment are paid late although they represent the largest part of revenues of most private and NGOs health institutions, particularly hospitals. This was considered as a prejudice against some investments in health field. Moreover, NGOs and private institutions are more or less allowed to

individually price their bills. However, a new study of cost analysis project was conducted at Rafidia hospital about costs of procedures and medical services that provided by MOH. It was revealed that data of this study is not comprehensively accurate and representative.

5.2.3 Theme three; medical errors

Interviewees argued that although medical errors are often non-compensable, MOH has been failed to handle such issue. They identified many obstacles and violations in organizing the process of dealing with such errors. Following are the discussed issues:

- A great misleading overlap exists between some definite concepts in medicine; they are complications, unintentional errors, and negligence.
- A lack of confidence in committees that investigate in complains about medical negligence exists. These committees are set up from parties from MOH itself, which is the defendant. However, MOH sometimes cooperates with expertises from outside.
- Inaccurate statistics of medical negligence exist. Interviewees attributed this to data dispersion between many official and unofficial bodies to which victims refer, if they originally report. However, there is a general increase in number of reported cases.
- Palestinian judiciary is unable to successfully discuss such issues; there is no regulatory law nor specialized medical courts and lawyers.

- Governmental health institutions and their employees are insecure against medical errors although MOH provides that health institutions of other providers must be insured to obtain a license.

- Media deals with issues of medical errors with much exaggeration. As a result, this harms the health system in the country in light of sever lack of specialists in medical press.

5.2.4 Theme four; quality improvements

It was revealed that quality of many existing and new services has been degraded. On the other hand, interviewees declared that a strong recent attention to quality returned within MOH according to organizational structure of 2008 by re-establishing a special department for quality planning. Furthermore, a full-time coordinator position was created for quality in every governmental hospital besides a committee of quality. Quality coordinators have been trained on many varied issues related to quality and emergency management at homeland and abroad. However, all interviewed coordinators confirmed that they still need a lot of training courses because of position' recentness. Some complained that powers granted to them are few. Moreover, faith in importance of their efforts is weak, especially by hospitals' administrators. Besides that, absence of financial support hinders their work.

In this regard, interviewees declared that MOH has become interested in hospitality services provided to patients and their attendants as

an important part of high-quality health services. Moreover, they praised other initiatives as those of baby-friendly and patient safety friendly hospitals. On the other hand, they belittled a recent work of developing national standards for quality, as well as local adoption standards for all health institutions at all levels.

5.2.5 Theme five; prepardness for emergencies

Interviewees identified some basic malfunctions of MOH in dealing with emergencies, these discussed malfunctions are:

- A specialized department for emergencies according to the organizational structure within MOH is absent. There is nothing but only a unit of relief and emergency belongs to the deputy.
- A national emergency plan, or at least a plan between all related parties on the level of each individual governorate is absent.
- Emergency plans that were prepared in all health institutions last September; when Palestinian leadership went to gain the recognition of the state of Palestine, are not followed seriously, except for only three plans of three hospitals.
- Training on emergencies is almost completely absent, even at simplest actions such as evacuation or use of extinguishers.
- Efforts of MOH to reduce the widely spread unfamiliarity with dealing with emergencies among Palestinians are modest.

- Distribution of emergency centres at various health institutions is bad, in addition to much more sever problem with bad distribution of health institutions themselves.

- Available materialistic preparations for emergencies, even simplest ones as emergency exists and fire extinguishers, are few.

5.3 Analysis for block 2; health workforce

The thematic analysis of health workforce block identifies a set of related codes, as well as basic and central themes. Table (5.2) provides a summary of these codes and themes.

Table (5.2): Summary of identified codes, basic and central themes of work force block

Codes	Issues discussed	Basic themes	Central themes
• All categories • Shortage • Distribution • Brain drain • Job description	• Inappropriate quantities & qualities • Poor distribution • Duplication • External migration • Internal migration • No comprehensive & written job description	• Problems with supply • Migration • Needs identification problems	Needs
• Job description • Non cooperation • Under-skilled tutors • Loss of opportunities • New faculty	• Poor education needs identification • Weak residency programs • Ineffective scholarship system • Establishment of faculty of medicine and health sciences" • Tele-consulting system, TIP & scientific committee	• Needs identification problems • Weak educational interventions • Specialization regulation • New interventions	Education programs
• Limited impact • High cost	• Poor trainee's selection • No practical training outside OPT • Poor follow up	• Problems with training programs	Training programs
• Inefficiency • Unfairness • Satisfaction • Dissatisfaction	• Unified form • Secrete criterion • No debate with evaluated persons • No job description • Greater benefits & stability • Uncomfortable work conditions • Disrespect and distrust from Public	• Problems with evaluation • Slightly increased satisfaction	Evaluation and job satisfaction

5.3.1 Theme one; needs

Interviewees were dissatisfied with available numbers of health workers of all categories at MOH's institutions, including administrative ones, as well as their distribution. A severe shortage exists in their rates compared to levels set by WHO. Moreover, this shortage is imbalanced in term of sex, especially for female physicians, even in women diseases in which female patients prefer to receive service by females like them.

Interviewees attributed this shortage mainly to problem of "brain drain". They strongly believed it would severely continue with no easy solution in light of difficult economic and political conditions from which Palestinian youth suffer, as well as poor current system of incentives. However, they blamed MOH for its lack of information about this problem, as well as for lack of almost complete plans to provide alternatives for available skilful workers with rare specializations in case of migration in addition to cases of retirement or death. On the other hand, they identified that MOH succeeded in attracting very few expertises from Diaspora as well as in maintaining much less existing competencies in the homeland, in addition to its efforts to seasonally attract many foreign medical delegations to make some difficult and rare operations.

Furthermore, interviewees complained from more worsening and complex problems with internal migration; from rural to urban areas, especially to Ramallah. They indicated that MOH does not deeply recognize the effects of such phenomenon especially for the long-term. Therefore, it does not take any steps to reduce this phenomenon and its impacts. Moreover, interviewees insinuated to duplication that exists in work of majority of MOH's workers with other providers. This phenomenon largely provokes conflict of interest; thus negatively affects the quality of provided services.

Finally, regardless of all previous problems with available supply form health workers, interviewees admonished MOH for absence of written

job description for all its positions. They considered such description, that determines requirements, powers and responsibilities of each position, a prerequisite for successful needs identification. They identified that in 1995 MOH started preparing a job descriptions brochure of all health positions. This process was ceased in 2000 with beginning of Al-Aqsa intifada. As a result, MOH recently prepares descriptions only for newly developed jobs such as medical director and nutritionist, etc.

5.3.2 Theme two; education programs

Interviewees declared that educational needs for health personnel are poorly assessed. They attributed this to absence of job description as well as to poor coordination between all related parties as MOH, educational institutions, and professional associations and unions.

Four years ago, MOH activated a new program of residency, for the purpose of specialization, in cooperation with Palestinian medical council, in all accredited governmental hospitals as training and teaching centres. Interviewees declared that many obstacles and deficiencies hinder effective implementation of this program. Most important deficiency is low-educational level of many tutors who oversee training of students in these hospitals. As a result, quality of health graduates will endure degradation in the next few years. In addition, absence of an effective scholarship system, to which insufficient budgets are allocated, as well as modest efforts that have been made to regulate health specialization process in foreign countries, have together contributed to loss of many excellent

opportunities. However, to regulate health specialization process in OPT, general director of health education declared that a new faculty of medicine and health sciences has been recently established in Palestinian health education institutions. This faculty joins all different health colleges; thus they become sections in it. This endeavour aims at regulating specialization by solving problems regarding educational staffs, which appear when one overcrowded health specialization is frozen.

However, interviewees indicated that MOH tries to develop its education programs using technology. A plan exists to computerize the exams of medical council in future as well as to expand use of tele-consulting system to benefit MOH from such use as much as possible. Moreover, it starts preparing unified written national TIPs for some diseases, as well as it establishes scientific committees in all governmental hospitals (see block 1).

5.3.3 Theme three; training programs

Regarding training programmes within MOH, interviewees strongly believed that impact of majority of them is very limited; impact does not much exceed the financial burden that it costs of budget. They attributed this malfunction to several factors that are:

- Limited use of technology in such programs and courses, in addition to unsuitable provided infrastructure.

- Lack of clarity of trainee's selection mechanism. This is obviously viewed with training offers received from donors. Their priorities and needs are incompatible with those of MOH.

- Inability of the Palestinian trainee to obtain a practical training during training courses abroad because of absence of temporary practicing certificates within foreign countries.

- Trainee's return to his/ her former location with similar powers and responsibilities, as well as lack of follow up for accomplished improvements after getting training. In addition, incentives provided for trainers are also limited

5.3.4 Theme four; evaluation and job satisfaction

Interviewees were dissatisfied with evaluation process within MOH. They identified that evaluation form is unified for all positions, although each single position has different requirements and responsibilities. Moreover, evaluation criterion is secret, and results of evaluation are not reviewed with evaluated persons although they recently become public. Furthermore, they believed that accountability system for health workers of all categories is very weak, especially for physicians. This absence of job description leads to negligence and corruption under excuse of lack of knowledge. As well as, its absence hinders the process of efficient and fair evaluation; evaluator and evaluated person alike are not aware of evaluation indicators in health institutions. Interviewees considered such

institutions to be very complex as they involve two work lines; administrative and much more complex one that is technical line. In addition, interviewees insinuated that punishment tackled by such system is not firm, in addition rewards and sanctions are very rarely addressed

Regarding job satisfaction within MOH, all interviewees, particularly those of hospitals, were de-motivated and dissatisfied. This dissatisfaction unfavourably affects on provided services. Nevertheless, they asserted that dissatisfaction slightly decreases. Accordingly, MOH has strongly become the most attractive provider for job seekers. They attributed this to greater benefits and stability provided by MOH comparing with other providers. On the other hand, they identified that work conditions at MOH's institutions are still poor and uncomfortable, status of professionals is low, opportunities for development are limited, and supervision and monitoring are focusing on mistakes rather than being a supportive tool.

In related context, interviewees were strongly dissatisfied with respect they obtain from public, especially respect for nurses. Moreover, they indicated that people in general lack confidence in their whole performance particularly in performance of physicians, although MOH includes Palestinian qualifications of whom everyone can really proud.

5.4 Analysis for block 3; health information

The thematic analysis of health information block identifies a set of related codes, as well as basic and central themes. Table (5.3) provides a summary of these codes and themes.

Table (5.3): Summary of identified codes, basic and central themes of information block

Codes	Issues discussed	Basis themes	Central themes
• PHIC • WHO • PCBS	• Annual health reports • NHDD • Cooperative accords with PCBS • MOH's official web page • Technological interventions • Preparation of HI • Establishment of a ntional institute of public health • Fears about efforts of previous institute • Mismatch with planning • Discrepancy with PCBS reports • Nonfeasance of web page • Limited use of GIS • Late electronic library project	Achievements and problems	Activities and improvemnts
• Data bases • Computerization • Link • EPR	• Incomplete integrated databases • Incomplete computerized data • Health reform & development project • National health register • No electronic link with PHIC • Interrupted health reform project • Incomplete EPR	Achievements and problems	Computerized systems
• Complete • Incomplete • High quality • Poor quality	• Complete data from hospitals • Incomplete data from centres and clinics • Complete data about acute diseases • Incomplete and low quality data about chronic diseases • No data about behavioural risk factors • Incomplete data about death and birth rates • Incomplete financial data • Incomplete data about physical assets • Incomplete data about workforce • Incomplete data at emergencies • Incomplete data about Israeli violations	Availability vs. quality of data	Information
• Resources • Inappropriateness • Disaster	• Finance; insufficient • Human; inappropriate • Infrastructure; inappropriate • Security; weak	Problems of H IS	Requirements

5.4.1 Theme one; activities and improvemnts

Interviewees pointed out that since the establishment of Palestinian Health Information Centre (PHIC) in 2003, it has accomplished many

achievements. Each year it prepares a report that includes almost precious information about Palestinian health situation. These reports are provided to WHO that, in turn, offers technical support to PHIC. However, interviewees sadly identifeid that planning process within MOH still falls short in benefiting from such reports in formulating national health policies. Similarly, researchers and interested people are still unable to deal with and benefit from these reports.

In 2005, PHIC updated the first edition of National Health Data Dictionary (NHDD) that was prepared by MOH in 2002, in cooperation with national partners, to unify data within Palestinian health institutions.

In 2010, MOH subscribed mutual cooperative accords with PCBS in order to boost assistance in implementing health surveys. However, director of PHIC insinuated that a discrepancy, for some data, exists between health reports of MOH and those of PCBS. This because each of PHIC and BCPS applies different systems for developing reports; the former uses surveillance systems while the later uses surveying systems. In addition, some bodies consider MOH as a governmental entity; they do not provide it with accurate information, while they consider PCBS as a neutral party. Moreover, MOH in the same year established an official web page supervised by PHIC. Interviewees identified that this page provides some usful information about MOH as organizational structure, in addition to rules and regulations. On the other hand, it provides few health education materials. Generally speaking, it is failed to play the role that it is supposed

to do (see block 6). However, director of PHIC declared that more technological innovations are developed within PHIC, especially in software field. PHIC uses Geographic Information Software (GIS) system to show geographical distribution of health information. Nevertheless, MOH's usage of this software is still limited; very few maps are used in health reports. Furthrmore, MOH works on creating an electronic library especially for researchers and people intested in healthfield. However, it was revealed that accomplished work on this project is very limited and slow.

Director of PHIC also declared that MOH prepared a final draft for Health Information Strategy (HI□) in Palestine in cooperation with all health stakeholders including WHO. This strategy will be implemented by 2015 after gaining the approval. Moreover, he identified that recent work exists on establishing a Palestinian national institute of public health. This institute, that will be oppened next year, and it is supposed to produce accurate researches and studies needed to develop work in fighting various diseases. Neverthless, some interviewees insinuated that current vision of this institute is not completely clear; and thus needs more scrutiny to become an addition, rather a duplication, to what is already at hand.

5.4.2 Theme two; computerized systems

Director of PHIC declared that MOH has recently built integrated databases in its different departments. They were completely accomplished in some departments. Remaining ones were computerized in varying

degrees, in addition to accomplishing some of their urgently-needed databases. Nevertheless, there is no electronic link between PHIC and any department. Moreover, MOH has started a program of health data computerization in some of its institutions. This is accomplished with support from United States Agency for International Development (USAID) through the Palestinian health sector reform and development project. The first phase of this program, that considered a real revolution in MOH's work, was completed. Very recently, MOH startes the second phase of this program after that USAID project was resumed. However, all remaining health institutions will be gradually computerized later. Nevertheless, PHIC does not benefit from this program; there is no electronic link between it and any computerized health institution.

In 2010, MOH began establishing a computerized national health register to identify health status of population. This was done through adoption of EPR for every citizen. This electronic health identity card can depict a complete medical history from birth to death. However, recent record has incomplete information as it includes few health data form only institutions of MOH. Deputy minister declared that MOH will address this problem later by enforcing all providers to link with a unified electronic network as a condition of obtaining the license.

5.4.3 Theme three; information

At this theme, interviewees assessed availability and quality of MOH's information. Following are discussed points:

- Data of secondary and teritary health institutions (hospitals) is almost completely available from vast majority of all providers.

- Data of primary health institutions (centres and clinics) is incompletely available although PHIC has carried out an earlier survey for all these institutions. This problem is heightened in private clinics; vast majority of them lack electronic or even paper-based patient records. However, this year, there will be a new survey in order to settle database related to primary health care at the center. This will give an opportunity to periodically update these data without the need to conduct new surveys.

- Some available indicators such as those address various health issues related to child care in primary health centers are relatively of poor quality; they have been classified on basis of governorates rather than on sex or age ones.

- Data related to acute diseases is completely available, whereas data related to chronic diseases, especially whose patients are treated by associations of private and NCOs providers as hemophilia and thalassemia, is incomplete. Such associations uncooperatively behave to prevent any interference in their activities and plans. Similarly, the case of incompleteness is for sexually transmitted diseases.

- Some health information related to chronic diseases, such as cerebrovascular diseases, is not presented with desired details; number of new infections is not available. Only available data is number of deaths resulted from such diseases.

- Data in area of behavioral risk factors status is absent. However, part of this data, particularly about diets and smoking, is provided in censuses and surveys conducted by PCBS.

- Data related to vital statistics, including death rates and to some extent birth rates, is incomplete.

- Data on expenditures and revenues of MOH and other providers is incomplete. Financial accounts receivables of all providers, including MOH, are available only for year 2010 through a national heath accounts study. However, even this limited data is not so accurate and detailed; majority of it is calculated based on estimated rather than actual results.

- Data about physical assets, particularly from equipment, is incomplete. However, there are current efforts being made at high level to count and document all properties of all different institutions of PA through a project called encoding (see block 4.1).

- Data about workforce in health sector, from all providers, is very limited. However, although MOH established a database for personnel affairs, information of the computerized file which is recently created for all governmental workers is incomplete and it is not periodically updated.

- Data needed at emergencies is completely dispersant and inaccurate. Performance of MOH in providing necessary information quickly is extremely weak; best proof is the incident of "Gabaa's bus".

- Data about Israeli violations is limited. Tangible violations as numbers of martyrs and wounded persons, births at checkpoints, destruction of facilities and health vehicles are observed. On the other hand, intangible violations, such as delays of workers to reach their workplaces, are derogated and thus are not observed. Such all these information can be used againt Israel at inernational courts in the future.

5.4.4 Theme four; requirements

Interviewees discussed the requirements needed for available health information management system within MOH. In addition, they identified the following troubles with these discussed requirements:

- Financial recourses; an annual budget allocated for PHIC is unavailable to provide hardware and software infrastructures. As a result, most of its needs, in particular developmental ones, depend basically on donation.

- Human resources; available employees at PHIC are insufficient from qualitive and quantitative perspectives. They are currently 14 employees. In addition, they need more training on mechanisms of data collecting, analyzing as well as reporting. Moreover, the number of available qualified human resources for translation from Arabic into English and vice versa is few. This causes an absence of English reports that are not translated into Arabic on Arabic web page of MOH. Moreover, this problem is much more sever in MOH's English web Page. It completely lacks news as well as Arabic reports.

- Infrastructure; an integrative infrastructure for communications at MOH's building as well as at vast majority of its institutions is unavailable. Furthermore, PHIC's work suffers from sever technical problems such as the interrupted and slow work of internet, on which PHIC's work basically depend, because of increased work pressure on the net. Moreover, there is no electronic link between PHIC and all other parties that either produce or benefit from health information as PCBS tnd all other ministries. However, director of PHIC identified that a related study was completed in this regard and still needs practical implementation. It is hoped that this electronic link will be achived in future by application of e-government project.

- Security; security systems applied to PHIC are weak. Its servers exist only inside the center itself in MOH's building in Nablus. There is no duplicated servers anywhere else, and even a plan to deploy disaster recovery servers has never been discussed. However, MOH deploys such plan for computerized data systems in its institutions. Moreover, workers at PHIC need training on providing continuous technical support for related programs and equipment.

5.5 Analysis for block 4; medical products and technologies

To facilitate the analysis for this block, it is divided into two parts; equipment and constructions; and drugs. Each part will be separately analyzed.

5.5.1 Analysis for block 4.1; equipment and constructions

The thematic analysis of equipment and constructions identifies a set of related codes, as well as basic and central themes. Table (5.4.1) provides a summary of these codes and themes.

Table (5.4.1): Summary of identified codes, basic and central themes of equipment and constructions block

Codes	Issues discussed	Basic themes	Central themes
• Quality • Quantity • Utilization	• Provision of high quality & modern devices • Shortage • Bad distribution • Inefficient utilization • Inefficient needs identification	• Achievements and problems	Needs for equipment
• Volume • Focus	• Clear expansion; renovating the old & adding the new • Unbalance expansion	• Problematic expansion	Needs for constructions
• Delays • High cost • Poor Priorities	• Establishment of a supply unit • General supplies law number 9 • Law of bids for governmental works • Improved construction style • High bureaucracy of MOF and of MPWH • Under-skilled procurement personnel • Limited funds • Inexperienced local designers & contractors • Unfair licensing systems • Weak monitoring systems	• Organizing procurement process • Organizing construction projects • Related problems	Procurement and construction projects
• Weakness • Absence • Limitation • Options	• Weak maintenance contracts • No central specialized maintenance laboratory • No funds neither stocks for emergent shutdowns • Provision training for each new device • Limited rational use • Disposing; new options	• Inconvenience of preventive maintenance • Limited initiatives • New disposing options	Maintenance and dispose

5.5.1.1 Theme one; needs for equipment

Interviewees strongly asserted that many of medical devices and furniture within MOH are very modern and with good quality comparing with other providers in Palestine, and even with other governmental providers in neighbouring Arab countries as Jordan, Lebanon and Egypt. Nevertheless, interviewees criticized MOH for its failure to distribute such devices efficiently, as well as its failure to provide qualified personnel to run some of these latest equipment at their full capacity. Furthermore, they indicated that there are some important machines that completely absent in MOH's institutions as Magnetic Resonance Imaging (MRI), in addition to insufficiency of majority of remaining old medical devices.

In related issue, majority of interviewed engineers at MOH were dissatisfied with needs' identification process for medical equipment; they are not sometimes involved in it. They attributed this most probably to narrow professional conflicts particularly between engineers and physicians, in light of fact that most directors at MOH's institutions are physicians who are not professional in engineering and maintenance needs and techniques. Physicians focus on different areas from engineers when developing needs. However, director of hospitals maintenance at general administration of hospitals indicated that needs assessment is not carried out at exact time. Thereby, this usually hinders process of preparing successful annual procurement plans.

Moreover, interviewees mentioned that available data about current and needed properties of MOH from medical devices is incomplete and unreliable thus hinders effective identification of needs. However, they named two valuable endeavours in this area; the first is encoding project. However, director of hospitals maintenance indicated that medical devices' encoding process usually needs specialists to overcome complex conciliation between engineering and medical names of devices. These specialists are recently unavailable at MOH. A second endeavour is the computerization project conducted at some institutions (see block 3), which facilitates annual stocktaking and limits negative aspects of former manual stocktaking.

5.5.1.2 Theme two; needs for facilities expansion

Regarding construction projects within MOH, interviewees declared that MOH clearly increases volume of its institutions, especially in the last few years, by either renovating and upgrading majority of existing facilities, or by adding new ones. Interviewees were strongly unhappy with such expansion. They believed that practices of the two current systems for licensing new health facilities and reviewing existing ones in WB and GS are considered weak. They complained that MOH's attention is focused on secondary and tertiary therapeutic hospitals at expense of primary health centres and clinics. Moreover, MOH gives preference, in its new project, to cities particularly to Ramallah, at expense of villages and camps. However, interviewees confirmed that MOH introduces some additional mobile

health clinics that provide health services to marginalized communities and those who are isolated by the wall and settlements. Nevertheless, they believed that actual needs still exceed what has been introduced.

5.5.1.3 Theme three; procurement and construction projects

At beginning interviewees identified that a new supply unit, independent in its administrative and financial affairs, was constructed at MOH for procuring its goods, services and works. Later, they indicated that procurement processes at MOH are organized by general supplies law number 9, while construction projects are organized by law of bids for governmental works. In this regard, they strongly blamed high bureaucracy of Ministry Of Finance (MOF) and of Public Works and Housing (MPWH). This bureaucracy restricts and delays procurement and construction processes even in situations where the decision is already determined as case of electro mechanical devices. Accordingly, confidence of creditors in MOH is negatively affected, and fewer choices and higher prices are provided. Similar problems of delays and expensiveness are also applied for common supplies to all ministries that are purchased through ineffective application of big quantity deal via central tenders implemented by MOF. Moreover, interviewees blamed MOH itself for lack of qualified personnel to efficiently manage and operate its complex procurement processes. However, the director of procurement unit indicated that a new law called public procurement was acknowledged for purchasing goods, services and works for public sector. Accordingly, a supreme council for

procurement policies will be developed as well as a new body called public procurement body to implement the procurement processes. It was hoped that implementing such law could solve such problems.

In a pertinent issue, interviewees mentioned that funds allocated by MOH for equipment and constructions are limited. Vast majority of them are donor-funded that is considered problematic; donors' priorities and policies are incompatible with those of MOH. Nevertheless, a consensus appeared about remarkable progress of MOH in organizing such aids to fulfil its needs under exceptional Palestinian context. As a result, many donors are now committing to real needs of MOH's lists that supplied to them in spite of continuation of some previous outlets. However, in this regard, interviewees eulogized allocating some of donated devices for NGOs hospitals in East Jerusalem to enhance their survival and opposition.

Interviewees asserted that MOH improves construction process. As a result, some buildings of its institutions partially meet medical standards thus guarantying public safety and psychological comfort, as well as achieving rational use of material and power. In this regard, director of engineering and computer unit at MOH indicated that local designers and contractors are inexperienced in implementing large projects especially those of MOH, which have special privacy that is not awarded by local designers and contractors. Therefore, MOH tries to deal only with contractors of first, second and third categories. Nevertheless, some pertinent interviewees doubted about effectiveness of this classification.

According to them, many high rank-classified contractors do not actually have expected administrative and technical skills, as well as financial abilities.

Finally, interviewees insinuated to deficiencies and exemptions at health institutions' licensing systems, as well as to weak monitoring systems over equipment, services and works within MOH (see block 6).

5.5.1.4 Theme four; maintenance and dispose

Interviewees believed that MOH is inconvenienced of preventive maintenance. Such maintenance is continuously conducted only for some few sensitive equipment, while for remaining ones, it is asked on demand. In addition, maintenance contracts are somewhat weak; debt purchasing abates strictness of contracts' conditions although MOH is seriously taking into account the cost and availability of maintenance services of equipment and facilities in evaluating contractors and suppliers. Moreover, a specialized, effective and central in-house maintenance laboratory is unavailable within MOH. Therefore, MOH tries to provide training for every new equipment either by the agent or manufacturer at installation, or by sending engineers outside on training courses. However, according to interviewees, when trainees are sent out, they are not seriously followed-up to disseminate new experience to wider interested colleagues. However, in this regard, interviewees mentioned that MOH is currently working on constructing the first test laboratory specialized in maintenance of medical equipment in Nablus. Thus, MOH will be able to train technicians without

a need to send them to Israel or abroad, as well as to be able to check accuracy of operating equipment.

In related context, interviewees confirmed that MOH tries to achieve rational use of energy and materials in the way new facilities are constructed. They also recognized that MOH tries to provide heavy-duty equipment. Moreover, it implements Uninterruptible Power Supply (UPS) systems in many of its institutions, especially new ones. Nevertheless, interviewees blamed MOH for its lacks of a resolute mechanism for monitoring and dealing with irrational use of, as well as negligence and misuse with devices and facilities by medical staffs and community alike. On the other hand, they declared that significant numbers of some medical and electrical equipment as well as furniture are still being used although they reach their expected lives. Such these equipment may ineffectively and inefficiently work because of repetitive maintenance. Furthermore, interviewees indicated that in spite of continuous acute shortage of majority of medical equipment, neither funds are allocated for emergent shutdowns nor a policy to provide stocks from at least commons and necessities is formulated. This is notwithstanding of delays and difficulties in providence of them from selling agents whom in general do not have any redundancies. However, MOH tries to cope with this situation by taking some modest actions as facilitating the exchange of spare parts between its different institutions, and by taking spare parts from disposed items.

Regarding disposing process, interviewees declared that MOH introduces new good and revenue-generating options to get rid of obsolete and damaged medical and electrical devices as well as furniture. These choices are; donation, sale, and sale as scrap.

5.5.2 Analysis for block 4.2; drugs

The thematic analysis of drugs identifies a set of related codes, as well as basic and central themes. Table (5.4.2) provides a summary of these codes and themes.

Table (5.4.2): Summary of identified codes, basic and central themes of drugs block

Codes	Issues discussed	Basic themes	Central themes
• Problems • Justifications • Progress • Promises	• No national regulatory authority • NPP • Increased prices • Limited reductions • Section & committee for drug pricing • No formal written legislations • Newly completed registration • Weak supervisory committee • SOPs	• Planning and policy making • Drug prices • Supervision over drugs	Management system
• Large • Costly • Insufficient	• Inefficient development process • Inefficient updating process	• Problems with EDL	List of basic drugs
• Great • Fast • Challenged	• Weak GMP • Israeli practices • Weak local competition • Strong foreign competition	• Problematic development • Justifications	Local industries
• Incomplete • Manual • Long	• Incomplete computerized data • No computerized programmes • Long time horizon of estimation	• Problematic identification	Needs for drugs
• General supply law • Tendering • Special committee	• Complex & long process • Some needless donations • No testing for some procured types • Bureaucratic procurement for urgent non list-drug	• Problems with procurement	Procurement
• Guidelines • Protocols	• No formal dispensing guidelines • Weak monitoring on dispensing • Incomplete treatment protocols • Irrational prescribing	• Problems with dispensing • Problems with prescribing	Prescribing and dispensing
• Incompatibility • Inefficiency	• Inappropriate storage conditions in terms of space, light, temperature, humidity and ventilation • Suitably equipped but insufficient Number of trucks	• Incompatible storage conditions • Inefficient distribution process	Storage and distribution
• Planning • Coordination	• Good conditions of tenders • No plans for inside cleaning • Weak anti-infection committees • No plans and cooperation for outside cleaning • No environmentally friendly incinerator	• Reasonable quantity of waste • Absence of cleaning plans; inside & outside health institutions	Waste disposing

5.5.2.1 Theme one; management system

Interviewees assessed the medication management system in OPT. They discussed the issue of planning and policy-making. They complained that clinical pharmacy departments are absent within MOH' s institutions. Moreover, there is no national regulatory authority of drugs in OPT. Nevertheless, they confirmed that MOH has achieved progress in managing pharmaceutical situation in OPT. Most recent and prominent efforts are those performed, in cooperation with many interested parties, to prepare a National Pharmaceutical Policy (NPP).

Interviewees nagged from general weakness in MOH's supervisory and censorship performance on local and imported drugs and pharmaceutical products. This complaint was especially about different types of herbs, cosmetics and food supplements, in light of lack of formal written legislations that determine a control mechanism. However, in this regard, director of drugs control department mentioned that MOH has recently finished almost a complete registration of previously mentioned types in order to prevent circulation of any unregistered type. Moreover, it was recognized that performance of supervisory committees of general administration of pharmacy is weak; these committees conduct few periodic inspection field tours. Moreover, their tasks overlap with tasks of inspectors from health directorate (field pharmacists) at each governorate. In addition, civil and private representatives are not included in these committees. It was also recognized that punitive actions taken against

violators and negligent persons are weak in addition system for handling related complaints is ineffective. Interviewees attributed part of previous problems to shortage of inspection staff at MOH, particularly in drug supervisory department with only four inspectors, as well as to need for more specialized training on supervisory tasks. On the other hand, interviewees were satisfied about MOH's French partnership for phrasing Standard Operating Procedures (SOPs) for some definite pharmaceutical tasks in order to facilitate monitoring on performance.

Regarding drug prices, interviewees from hospitals believed that prices of most types of drugs keep increasing. This increase is sometimes sharp. They believed that MOH does not adjust drug's prices in local market despite of its frequent promises to reduce them. Previously accomplished reductions includes only very limited types with limited price reductions. On the other hand, interviewees at general administration of pharmacy declared that MOH has recently established special section and committee for drug pricing. Accordingly, a new pricing system is developed and implemented at Palestinian market on 1/3/2011. This system imposes new discounted prices only for foreign pharmaceutical products. Regarding prices of locally manufactured drugs, this group of interviewees confirmed that they are still high. Therefore, MOH is currently evaluating these prices as a preface for imposing new reduced ones. Moreover, it was recognized that regulatory role on drug prices, which is carried out by syndicate of pharmacists, is weak. There are sharp speculations from which big pharmacies benefit at expense of small ones.

5.5.2.2 Theme two; list of basic drugs

Interviewees considered the Palestinian Essential Drug List (EDL), that was produced for the first time in 2000, a very large and costly one. They were strongly dissatisfied with processes of developing and updating the list, which bases on requests of physicians and recommendations of WHO. According to interviewees, vast majority of physicians are influenced by pharmaceutical sales representatives when they develop essential drug choices. In addition, updating of such list is unsystematic although it has been regularly updated even more often than WHO has, in collaboration with many interested parties. Because of all above mentioned notices, a general absence of some drug types exists especially for antibiotics, in particular those in form of drops. In addition, some old and less effective drugs are still on the list although they can be effectively replaced by newly introduced ones.

5.5.2.3 Theme three; local industries

Interviewees professed that MOH has performed great and fast development of local pharmaceutical industries since its establishment. As a result, local factories have become able to satisfy a considerable percent of annual MOH's needs. Interviewees indicated that MOH, with a support from WHO, has started to apply Good Manufacturing Practice (GMP) of drugs, and has encouraged Palestinian pharmaceutical factories to obtain related certificate. However, interviewees insinuated that gaining such certificate does not improve quality of local drug to expected levels.

Furthermore, it does not open new markets for export. They attributed this to inability of MOH to formulate suitable guidelines of Palestinian practice of manufacturing. On the other hand, interviewees identified many obstacles that face such industry in OPT. These obstacles that delay and hinder many developmental plans to increase production and distribution targets. Some of these obstacles are following presented:

1. Severe restrictions imposed by Israel on these industries to forcefully annex them to Israeli industries. Israel entangles importing drugs and raw materials; it forces to register all imported drugs according to Israeli standards. In addition, it forces to obtain an Israeli approval to allow for imported raw materials to enter OPT. Moreover, Israeli control over borders may cause illegal smuggling of some drugs, food supplements and cosmetics to Palestinian markets.

2. Weak competition at severely limited local market due to absence or/ and repetition of many production lines.

3. Strong foreign competition at local market by allowing for more new types of drugs to enter OPT.

5.5.2.4 Theme four; needs for drugs

Interviewees indicated that MOH to date still lacks a complete computerized pharmaceutical data. This lack hinders efficient identification of future needs from drugs. Yet, MOH has recently computerized all pharmaceutical data at central warehouses, besides that at some pharmacies

at pilot sites in all institutions included in computerization project. In addition, interviewees stated that MOH lacks modern computerized programs that track consumption and inventory levels, and that automatically calculate order sizes. Therefore, MOH annually estimates its future needs based largely on records of past consumption patterns from its institutions, which are sometimes incomplete and thus not reliable. In addition, interviewees blackened the long time horizon of estimation; it is annually conducted. Nevertheless, they believed that current cumbersome and long procurement process makes the choice to shorten annual forecasting period un-trackable anyway.

5.5.2.5 Theme five; procurement

Interviewees declared that drug procurement process is carried out by a procurement committee through a tendering system organized by rules of general supplies law. They deeply believed that this law does not take into account special requirements of procuring drugs. As a result, this situation sometimes hinders an efficient responding to MOH's needs. On another hand, interviewees eulogized the priority given at procurement for locally manufactured drugs with about a 15% preferential price difference over foreign ones.

Furthermore, interviewees were dissatisfied with received pharmaceuticals via donations, especially those received with beginning of Al-Aqsa intifada, which were either expired, tainted and/ or outside EDL. Nevertheless, they admitted that although there is no firm, written and

formal policy for dealing with such donations, MOH has accomplished considerable progress in managing such donations. However, regardless of this, there are still few donors who still pay needless donations. In related issue, interviewees declared that testing laboratories at MOH lack some equipment needed to test some types of donated drugs as well as some procured ones from foreign sources; they need sophisticated techniques.

Regarding urgent non-list drugs, interviewees indicated that there was a special procurement committee to procure them after getting an approval from the minister or his deputy. However, this committee is now unemployed. Nevertheless, even when it was employed, it did not quickly provide urgent drugs because of bureaucratic delays.

In related issue, interviewees mentioned that in case of drugs depletion, MOH asks these drugs either from other providers, or from international organization, or/ and donors, based on stated priorities until procured quantities are received.

5.5.2.6 Theme six; prescribing and dispensing

Interviewees declared that formal standard guidelines regarding drugs dispensing are absent. As a result, monitoring on dispensing patterns, even on expensive drugs, is ineffective. In this regard, interviewees stated that there are many related instructions and manuals, but majority of them are either incomprehensive, not updated, and/ or arrive late.

Moreover, there are very few formal and written standard protocols that are developed for treatment. Furthermore, effective committees for reducing drugs and tests consumption are absent. However, interviewees identified that MOH, with a French partnership, is currently working on developing treatment protocols for 12 carefully selected diseases to be added to existing protocols regarding cancer. They hoped that such protocols would positively affect on drug consumption.

5.5.2.7 Theme seven; storage and distribution

Interviewees declared that pharmacies and drug stores in almost all health institutions, even those in relatively established ones, in addition to central warehouses of drugs and chemical substances suffer from a lack of space. In addition, their available storage conditions, in terms of light, temperature, humidity, and ventilation are incompatible. However, they mentioned that MOH is currently building new central stores according to international standards. In pertinent issue, interviewees declared that MOH is uncommitted to provide majority of requirements of public safety systems in its pharmacies and drug stores. In this regard, they namely mentioned the huge fire that broke out in warehouses of medical supplies and disposables in 2008. Moreover, they blamed MOH for failing to reinsure its institutions even after such this accident.

Regarding the process of distributing drugs, interviewees declared that trucks used in distribution from central warehouses to different institutions are suitably equipped. On another hand, they are only three

trucks, that considered insufficient. As a result, orders are frequently delayed and/ or broken down especially when one truck becomes out of service. These resulted problems of such insufficiency are almost solved by larger ones that consume much more time, effort as well as cost. Nevertheless, interviewees believed that insufficient number of workers at pharmacies, in addition to narrow existing warehouses make it difficult to carry out previewing and arranging of complete orders at once.. In this regard, interviewees declared that MOH decides to increase truck's number to be five in near future. However, problems in distribution are further worsening by the absence of well-established computerized systems that can share accurate information about needs between all health institutions, as well as by absence of programs for automatic management of distribution.

5.5.2.8 Theme eight; waste disposing

Interviewees recognised that amounts of disposed drugs are reasonable. They attributed this to organizing efforts of MOH in this regard. MOH makes a condition for accepting tenders; at least 2/3 of drug validity must be available. Moreover, it sometimes forces suppliers, through contracts, to replace expired items with new ones.

However, regarding medical waste disposing process, interviewees were dissatisfied with lack of clear plans and protocols for cleaning, disinfection and antisepsis processes that are conducted inside and outside

health institutions alike. They clarified that what has MOH accomplished is un-obligatory, and what materials has it provided are very limited.

Moreover, interviewees blamed MOH and all related parties as other providers; municipalities; Environment Quality Authority (EQA), etc, for their inefficient cooperation in medical waste disposing processes. They clarified that MOH's supervision over this process stops after waste leaves health institutions. As a result, medical waste is usually mixed with normal one after it is transported to landfill by municipalities' cars. This condition is severely worsen by lack of an environmentally friendly incinerator dedicated to burn medical waste, at the time that available central medical waste incinerator in Jericho is out of service, as well as convection oven in public health laboratories is small. Nevertheless, many recent promises exist in this regard as a part of a new project of medical waste management at future. In this regard also, intervieews believed that the developed anti-infection committees are ineffective; they need a lot of experience, education and support. In addition, MOH is still delinquent in cautioning and educating society about danger of medical waste, especially for patients, attendants and visitors alike.

5.6 Analysis for block 5; health financing

The thematic analysis of health financing block identifies a set of related codes, s well as basic and central themes. Table (5.5) provides a summary of these codes and themes.

Table (5.5): Summary of identified codes, basic and central themes of finance block

Codes	Issues discussed	Basic themes	Central themes
• Budget • Aids • Treatment bills	• Low budget • Low and non monetary aids • Non-binding and irregular aids • Bad mechanisms for pricing & collecting treatment bills	• Problems of allocated budget • Problems of aids • Problems of treatment bills	Income sources
• Distribution • Costs	• Imbalance in distribution • Delayed payments • High capital costs • High operating costs	• Problems of distribution • High costs	Expenditures' policies
• Coverage • Benefits	• Wide coverage • Comprehensive benefits • New insurance policy	• Problems with coverage & benefits • Solution; new policy	Governmental health insurance
• Problems • Change	• Limited financial powers • Difficult income prediction • No funds for emergencies • No review for spending policies • Imperfect change from line item approach to performance-based approach	• Problems • New approach	Planning & budgeting
• Existing system	• Unclear laws • Weak financial monitoring • Modest financial programs • Lack of financial information • Good human resources • Lack of instruments & equipment	• Laws • Monitoring • Programs • Information • Human resources • Instruments & equipment	Requirements of financial system

5.6.1 Theme one; income sources

Majority of interviewees discussed the main deficiencies in income sources of MOH. They identified the following ones:

- Fund for MOH that comes from MOF according to law of general budget in the form of scheduled-budget, is less than the required needs. Moreover, PA does not regularly pay it.

- Internal financing of health budget in OPT largely depends on direct out-of-pocket payments that are considered the most inequitable mechanisms to finance any health care system.

- Aids received from international organizations, donor countries and local community are problematic. They are non-binding, irregular and very low compared to actual needs of MOH, though financing of health budget in OPT mostly depends on donations. Moreover, most of them are not monetary. On the contrary, they are corporeal in the form of infrastructures, medical equipment, etc. This limits diversity of options as well as advantage of some of them. Even for majority of cash assistances donated to MOH, MOF does not permit MOH to freely benefit from them.

- Mechanism of pricing and collecting bills from insured and uninsured patients is ineffective. Service's price for uninsured person is very modest compared to what he/ she pays in private or NGOs institutions. Moreover, bills are deferrable until treatment is completed.

- Governmental Health Insurance (GHI) policy in OPT is extremely poor However, GHI is thoroughly discussed later.

5.6.2 Theme two; expenditures' policies

Interviewees dwelt in talking about this theme that addresses MOH's operating and capital expenses. Following are the discussed points:

- There is an imbalance in distributing resources between various types of MOH's expenditures; capital and operating ones, as well as between items of each type.

- Capital costs of MOH have recently become very high because of modernization and increase in number of buildings and medical equipment. Moreover, payment mechanism of its obligations to suppliers is extremely ineffective (see block 4).

- Bill of salaries of governmental health sector employees is extremely high under an appointment system that does badly use and distribute human resources.

- Bill of medicine is high because of shortcomings in ED, besides irrational drug prescribing and description patterns.

- Bill of treatment outside MOH's institutions, inside and outside OPT, is considerably very huge. Moreover, mechanisms of pricing of, paying for and distributing of purchased services are ineffective (see block 1).

- A great danger exists in continuity of current health insurance policy, specifically for Al-Aqsa intifada insurance. This policy causes many

pressures on MOH's budget especially for bill of outside treatment. Following is a thorough discussion for GHI.

5.6.3 Theme three; governmental health insurance

Interviewees strongly criticized MOH's policy related to existing health insurance system especially with unplanned extension through the so-called Al-Aqsa intifada insurance that considerably increases users' numbers. They attributed this increase to multiplicity of agencies that are authorized to issue this insurance, in addition to system of exception through office of president, of minister of health and ministry's senior officials. This multiplicity and exception cases cause a clear confusion results in loss of control over issuance process. Moreover, current health insurance policy makes diverse and multiple parties governmentally insured through agreements with MOH, in addition to 100% coverage rate adopted in 2007 for free health insurance services in GS.

However, interviewees pointed out that all participants in current insurance system receive same services and benefits regardless of insurance premium they paid. Unemployed workers who are registered in Al-Aqsa intifada insurance are not shareholders. Furthermore, benefits that are generally covered by governmental insurance program are comprehensive; they include service in addition to medication. Even if one service cannot be provided at MOH's institutions for one or other reason MOH is obliged to buy treatment from outside.

In this regard, interviewees were optimistic about a current proposal for a comprehensive insurance project that includes creation of an independent national health insurance body. They hoped that this new insurance program would be carefully organized to solve the imbalance in financing budget of MOH and of PA in general.

5.6.4 Theme four; planning and budgeting

Interviewees recognized a new change in method of preparing general budgets from line-item approach to performance-based approach. They identified many obstacles that face implementation phase; most important one is the absence of much accurate information, from multiple parties, needed to move focusing on inputs to outputs. As a result, the idea of performance measurement was cancelled and thus the move from focusing on inputs to outputs has become ineffective. In this regard, interviewees saw that non-binding and irregular aids from international organizations, donor countries, and local community weaken the ability of MOH to predict its income, and thus to prepare successful budgets.

Interviewees strongly blamed MOF for its interference in details of financial management of MOH. This interference limits financial powers of MOH, and confuses its work especially for complex bureaucratic procedures adopted in procurement processes. Furthermore, they blamed MOH for its lack of a specialized department to assess and review spending policies and their impact on ground.

5.6.5 Theme five; requirements of financial system

Interviewees discussed what they consider the minimum requirements that must be provided to build a strong financial system within MOH in light of its scarce resources. These discussed requirements are:

- Financial laws; many laws that govern the financial actions within MOH are widely unclear. This opens a door to personal jurisprudences in interpretation.

- Financial monitoring; monitoring and accountability systems at MOH are weak, as in any other governmental institution, either those systems from MOH itself or from many external third parties. As a result, there are sometimes robbery, corruption, and waste of public money that is originally scarce (see block 6).

- Financial programs; the new accounting program used in MOH is of modest abilities. It is unable to provide all information necessary to evaluate performance and to formulate financial policies of MOH. This is because it has been designed for all ministries, and therefore it does not take into account the specificity of activities of each ministry. In the same context, optimism about the computerization project of health system exists, and hopes emerge to establish intact and strong financial programs and system within MOH.

- Financial information; an integrated financial database in MOH is incomplete. In addition, many financial data related to MOH and other providers is absent (see block 3).

- Human resources; according to general director of financial affairs at MOH, workers of financial sections and departments at MOH's institutions have the required qualifications and experiences.

- Instruments and equipment; a clear shortage in the availability of necessary equipment exists in almost all sections and departments of finance at MOH's institutions, starting from printing paper and ink, and ending with computers.

5.7 Analysis for block 6; leadership

The thematic analysis of leadership block identifies a set of related codes, as well as basic and central themes. Table (5.6) provides a summary of these codes and themes.

Table (5.6): Summary of identified codes, basic and central themes of leadership block

Codes	Issues discussed	Basic themes	Central themes
• Council • Plans • Trade offs • Priorities • Formulation vs. implementation	• Establishment of a national council for health policies and planning • Smaller role is allocated to previous council • Incomplete executive regulations of public health law • Non-participatory annual health action plan • No department for monitoring and evaluating • Unrealistic diagnose process • Focus on priorities & ignorance of process • Gap between planning & implementation	• Development • Unsuccessful practices • Inefficient priority setting	Planning
• Ministry of Physicians	• Unspecialised health administrators • Bureaucracy & centralization • Ignorance of past achievements • Personal disagreement at top management	• Problems with leaders	Leaders
• Planning • Implementing • Monitoring	• Inactive participation • Unawareness culture • Passive effect	• Relation with Community	Community
• Visual • Audio • Printed	• Maximize MOH's achievements • Disregard health promotion & education • Raise doubts • Vanish confidence	• Role of inside MOH media • Role of outside MOH media	Media
• Validation • Problems • Duplication	• Inefficient; validation for life • Good formulated licenses • Weak implementing & monitoring • Different systems • Exceptions • Inappropriate inspectors; inappropriate quality and quantity • Inefficient judiciary procedures	• Licensing for professionals • Licensing for institutions • Justifications	Licensing

5.7.1 Theme one; planning

Interviewees admitted that a clear development in field of planning within MOH has been very recently emerged. Accordingly, MOH

institutionalizes the planning process by establishing a national council for health policies and planning. Nevertheless, interviewees were still unsatisfied with many practices of MOH in this field. They identified that a smaller and less important role is allocated for previously mentioned council than that it should play; it is now a recipient for policies rather than being a formulator. Furthermore, they declared that MOH does not complete formulating all executive regulations of Palestinian public health law number 20 that is considered the regulator of Palestinian health sector services. In addition, they blamed MOH for its solely formulated annual health action plan without participation of other providers.

Furthermore, interviewees complained from the absence of realistic problem diagnose, based on reliable and comprehensive information, which can effectively trade-off between available priorities; in order to formulate policies and strategies. As a result, MOH invests in interventions that do not match its need while it ceases completing unfinished urgent ones. Moreover, it was revealed that priority-setting process at MOH focuses mainly on priorities itselves while neglecting the process of identifying them. More importantly, a gap was appeared between policy formulation process, and a much more important and difficult process of implementation. Generally speaking, MOH makes unworkable strategies by considering unrealistic time and results. Nevertheless, interviewees declared that some persons in leadership center at MOH refuse to establish a specialized department for monitoring and evaluating.

5.7.2 Theme two; leaders

A very severe disregard of administrative work at MOH was observed especially for positions at top of administrative hierarchy. Physicians almost occupy all high management positions. A "ministry of physicians" was a worrisome term repeatedly mentioned during interviews. However, MOH has very recently paid some attention to appoint administrative staff with qualifications particularly in field of health management in some few health institutions. Therefore, it assigned an agreement with Al-Quds open university to adopt a new academic program of health management. Interviewees strongly believed that managing health institutions requires a complex combination of skills; since responsibilities are widely diverse, serious and human.

Moreover, it was revealed that bureaucracy and centralization are widely spread within MOH. Furthermore, a majority of managers, to whom the responsibility of managing MOH was assigned, gave up achievements of previous managers. This situation restrains effectiveness, and deteriorates former achievements. In addition, personal disagreements at top of organizational hierarchy in the previous ministry of Ramallah, which lasted for the longest period, hindered a unified decision-making process, and caused a reference multiplicity.

5.7.3 Theme three; community

Interviewees declared that MOH does not invite local community to effectively contribute in planning, implementing and monitoring processes.

The unit at MOH for cooperation with private sector and NGOs is inactive. There are no community associations that promote or support initiatives and achievements of MOH. This can be partially attributed to general lack of knowledge about recent reforms of MOH within people, as well as to spread of many misunderstandings about its interventions. MOH does not openly talk with public. As a result, public are unaware of its current abilities and challenges, and thus they develop unrealistic expectations form it.

Moreover, Palestinians see responsibility of providing care as a matter for government alone. Interviewees believed that responsibility of providing health service is primarily one of MOH's duties. On the other hand, they believed that people must have a part of this responsibility. People are the party that directly suffers from problems, and thus they are the most capable to clearly uncover health problems, and to determine needs from health services.

On another hand, interviewees indicated that in addition to inactive participation of community, there are some enemies of MOH's success at homeland as academics, lawyers and decision-makers, etc. They draw very black picture about Palestinian health system especially regarding governmental one, particularly in relation to medicine and staff. This situation imposes very damaging restrictions on reform attempts by destabilizing confidence of people in MOH.

5.7.4 Theme four; media

Interviewees mentioned that role of media that comes from inside MOH is deficient. It devotes itself to maximize achievements of ministry, while it disregards delivering health education and awareness messages for people. Moreover, it neglects transferring people's complaints, concerns and hopes to officials of MOH. However, it was revealed that department of public relation and media at MOH suffers from shortage in human, technical and financial resources that are together needed to effectively conduct related interventions.

Regarding media that comes from outside MOH, interviewees identified that its relationship with MOH is impaired. They supposed such relation to be much more perfect because of specificity of Palestinian situation; sever political instability in addition to easy spread of rumours. This type of media, whether it is visual, audio or printed materials, has devoted itself to raise doubts about health system in OPT. This infraction is intensified especially in absence of supervisor and accountant; thus negatively affects confidence of people with performance of MOH. Moreover, it allocates a very narrow space to health issues under sever scarcity in health specialized media staffs.

5.7.5 Theme five; licensing

It was revealed that licensing system for professionals is weak and inefficient; it is enough to mention that a practicing license is valid for life.

On another hand, large developmental steps related to licenses formulating process of health institutions are accomplished, compared with idle state inherited from Israeli occupation before MOH's establishment. Nevertheless, application and follow-up mechanisms of these licenses and regulations are still weak. As a result, specialization in work of most health institutions is cancelled; duplication strongly appears. Interviewees attributed this weakness to the following causes:

- Existence of two different but weak licensing systems in GS and WB.
- Existence of exceptions in current licensing system for some institutions.
- Need of inspectors for training at certain special techniques required to evaluate health institutions.
- Insufficient numbers of inspectors and field visits that investigate all institutions and follow up all complaints. Furthermore, many inspectors feel weak and helpless while they are doing their jobs because of their weak trust with MOH. This negatively reflects on integrity of results.
- Absence of representatives for other health providers in licensing and inspection committees. Gaps in governmental health institutions exist. Other providers must participate in uncovering and improving them.
- Slow judiciary procedures in this regard. Moreover, they are not deterrent and of a questionable integrity.

However, after finishing analyzing all central themes related to each single block of the Palestinian health sector, they all are depicted in figure (5.1)

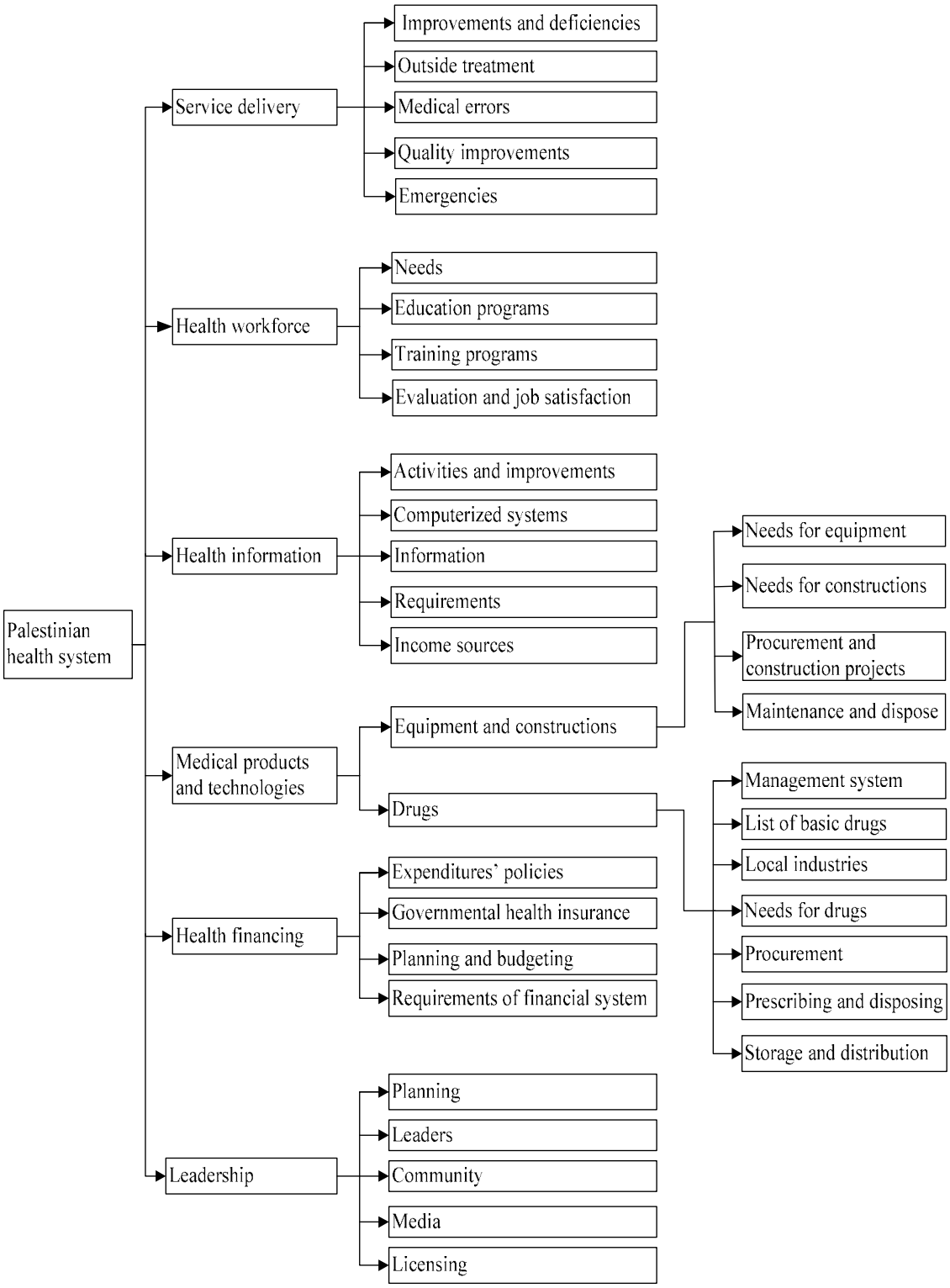

Figure (5.1): Central themes of analyzing Palestinian health system

Chapter Six
Discussion

6.1 Overview

This chapter introduces a general framework of proposed BCP for the governmental health system in OPT. Moreover, it depicts a general structure of this plan. It restates the importance of some definite chapters in this research, and links each of them with particular phases of this continuity plan. A further generic analysis for all building blocks, that are identified at previous chapter, is added at this chapter by coupling general analysis of data obtained through interviews with data collected from observations and documents.

More importantly, this chapter thoroughly discusses all identified mitigation strategies.

6.2 BCP framework development

As mentioned earlier; BCM is fairly considered a new practice. Therefore, although a number of frameworks are cited in literature for BCM, there is no standardized procedure in place to develop a BCP that is crafted to all settings, and that can work best for every system in the World. Moreover, all these frameworks are almost originated at foreign developed countries. Mataria et al. (2004) believe that direct applying of a method that is originated at developed countries in a developing country is highly disputed matter by many decision makers. Accordingly, it is acknowledged that a continuity plan that is originated at extremely unique and complex

Palestinian contextual constraints makes a valuable contribution. This research does make such contribution by introducing a generally developed framework for a continuity plan for the governmental health sector in OPT. This framework is represented in figure (5.1).

However, to check the validity of this framework, some key persons at MOH were asked about. These persons are primarily directors and general directors at MOH. All of them were strongly satisfied with it. Nevertheless, it is important to mention that ambiguous Palestine's future makes it impossible to consider any scenario for future in planning with high or even moderate degree of confidence.

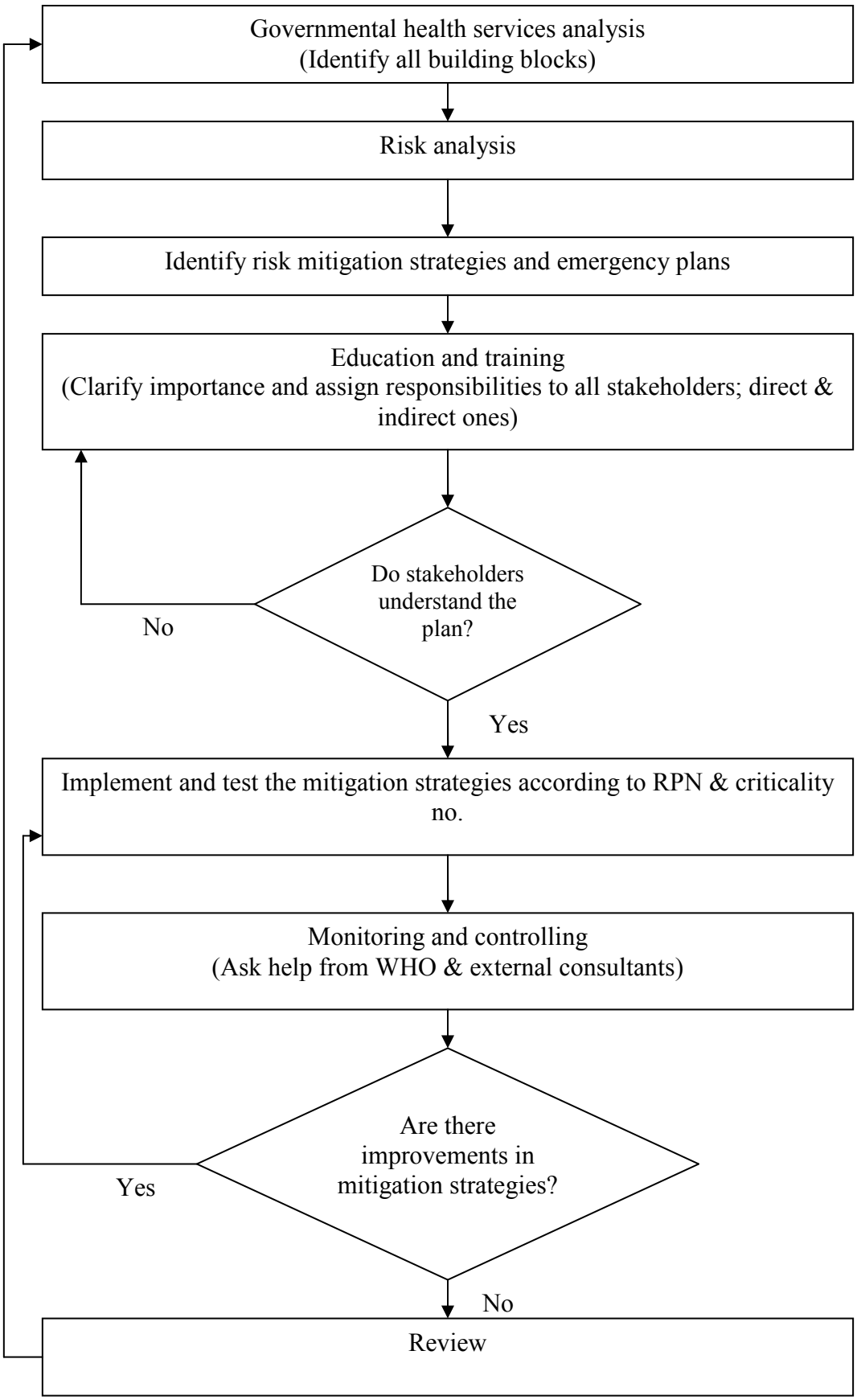

Figure (6.1): A framework for BCP

6.3 Glance at structure of the plan

As frequently mentioned, the purpose of this research is to develop a BCP for the governmental health sector in OPT. Therefore, this research illustrates the different phases of the plan through its various chapters. It provides a literature review that characterizes health system in Palestine. This review, as represented in chapter three, serves as a business analysis phase of the proposed plan.

Literature review is followed by semi-structured interviews with carefully selected personnel from MOH and its institutions. However, although interviewees were asked a set of previously determined questions in order to concentrate on some main topics, they were free to talk about any further topics they believe them related and important. These interviews reveal a majority of risks associated with MOH's work. The analysis of interviews, as it is introduced in chapter five, in addition to general discussion that is presented in this chapter, serve as a risk analysis phase.

Regarding the phase of identifying risk mitigation strategies, these strategies are discussed later in a separated section through this chapter. However, all remaining phases of the plan, which are more practical rather than theoretical, are briefly discussed later in this chapter.

6.4 General risk analysis

6.4.1 Risk identification

Although health status in Palestine is in general considered better than that in other countries with identical socio-economic contexts (Hamdan & Defever, 2002), there is a widely spread belief that health care system in OPT does not actively contribute to the role it is supposed to play.

Following is a general identification for sources of risks related to each particular building block.

6.4.1.1 Service delivery risk identification

Current expansion of MOH's facilities and services is seen as a weakness rather than strength; it is insufficient and unequal particularly regarding secondary and tertiary services in terms of types, and among geographical areas (Abu-Zaineha et al., 2011). The percentage distribution of total expenditures on prevention and public health services in 2010 is considered modest with 7.3 comparing with 62.2 on curative care services (PCBS, 2012).

The unplanned increase in numbers of persons entitled for public services through the so-called Al-Aqsa intifada insurance has not been accompanied with a parallel increase in capacity and quality of health system. Accordingly, the quality of services is expected to furthermore deteriorate (Abu-Zaineha et al., 2009). Internal referral system as well as

external one are weak. Primary health centres become "banks of referrals" for hospitals thus place a greater burden on hospitals. External referral system is ineffectively managed. Moreover, majority of services afforded by other providers are available at MOH's institutions. This duplication negatively affects the continuity of all providers together, and constitutes a waste of resources, and a lost of opportunities to develop many other services.

A major challenge to health system in Palestine is chronic diseases (Abu Mourad et al., 2008) that are expected to increasingly be in the future (Horton, 2009). It was revealed that MOH fails to engage the public in providing some informal primary health services for family members particularly those with such diseases.

Regarding dealing with emergencies and disasters, MOH's preparedness for them is still poor. Although successively accumulated emergencies on Palestinians have provided a great opportunity for training on emergencies and disasters, they have not positively enriched MOH's experience. In other words, what have been happened are random efforts. As a result, some problems have been solved by larger ones.

6.4.1.2 Health workforce risk identification

Regarding problems of health workforce in OPT, Hassan-Bitar and Narrainen (2011) identify that such problems are considered one of the most important failures of current Palestinian health system. Interviewees

affirmed that neither the quantities nor the qualities of available health personnel at MOH, are appropriate. As a result, a sever shortage of health workers of all categories greatens at MOH and it is expected to grow in the future under austerity policy prepared by PA to face the sharp fiscal deficit in its budget. Nevertheless, bill of wages and salaries within MOH constitutes the largest proportion of its budget; about 43% of total expenditures in 2010 were spent on workers (PHIC, 2011). Interviewees partially attributed this problem to poor appointment system within MOH, that sometimes depends on personal interests and political affiliations, as well as to irrational use of available workforces of all categories, especially physicians.

MOH cannot strictly control numbers and types of medical students in OPT. A sever excess of health personnel exists in some specialists at expense of a sever shortage in many others. Interviewees indicated that a health practising license being valid for life without a compulsion for renewal by continuing training and education reflects dark picture for health education and training programmes within OPT, and also for two different, and weak, systems for licensing. However, although MOH expands national education and training programs, workforce is still under-skilled; neither high quality of education courses nor of training programs is given to them. Interviewees blamed MOH for absence of clear job description for almost all its positions. They believed that such description is a cornerstone in human resources management; it identifies needed

health workers, as well as it helps in developing programmes of education and training, and performance evaluation.

6.4.1.3 Health information risk identification

Regarding health information, MOH is considered the primal procreator for health statistics and indicators in the whole OPT, including East Jerusalem, for all those interested in health topics (MOH, 2012). However, it was revealed that Palestinian health care system development pays little attention to build a strong and sustainable health information system. There is a remarkable paucity, incompleteness and unreliability of some provided data. Unfortunately, it was noticed that poor quality of some information is matched by inappropriate use of vast majority of all provided data (Shalaby & Ladadwah, 2007). On the other hand, MOH affords many high-quality health information with certificates provided by UN organizations. Accordingly, although many authors as Mataria et al. (2009); Schoenbaum, Afifi and Deckelbaum (2005); and Horton (2009) criticise Palestinian health system for different deficits, WHO states that the only existing deficit in it is lack and unreliability of information from private provider (EMRO, 2006).

However, access to right health information in OPT is a cumbersome process in most cases (MOH, 2011 b). Previously at section 5.4, interviewees identified many obstacles that hinder effective information collection in OPT, further obstacles are identified following:

- Number of health facilities from all providers, especially from MOH, increases. This makes PHIC's work of collecting, analyzing, and publicizing of results a very difficult process.
- Practices of ocuupation disrupt process of collecting reliable data especially in regions classified as area C, as well as in East Jerusalem. Moreover, internal Palestinian separation disrupts process of collecting reliable data from GS.
- Cooperation of public in providing some data is poor. Quality of data in some cases is distorted as people delay or refuse reporting.
- Combination of paper and electronic data is poor; vast majority of records receive to PHIC are still totally paper-based.
- Automation and documentation philosophies are not widely spread in health institutions; workers are unable to correctly use computers and ITs. In addition, many physicians, from all providers, do not care about providing accurate data; they routinely fill forms.

6.4.1.4. Medical products and technologies risk identification

6.4.1.4.1 Equipment and construction risk identification

Regarding buildings, equipment and furniture within MOH, it was obviously observed that people do not appear to appreciate the value of new interventions accomplished for improving them. On the other hand, interviewees complained from parallel technologies within institutions of

MOH itself and with other providers. In addition, they also complained from sever shortage and obsolescence in some types of equipment, including basic ones, as well as in many spare parts. They attributed this bad situation to many factors; most notably are continuous emergency state imposed by Israeli occupation's practices that destroy or delay developmental achievements in this domain, as well as tremendous growing work pressure on MOH's institutions compared with other providers. Huge increase in governmentally insured people quickly depreciates devices. More importantly, interviewees believed that MOH does not scientifically study its real needs from equipment and construction projects before asking for them. Furthermore, it inappropriately distributes them. Interviewees strongly attributed such poor expansion and distribution for poor priority setting within MOH. According to them, MOH considers this issue as merely a matter of increasing capacity, and it does not sense the more important issue of best effective utilization of available and expected capacity. In addition, they partially attributed this misallocation to poor practices of donor countries and local community, by which majority of such equipment and construction projects is financed.

Another stated issue was preventive maintenance. MOH pays little attention to it (Khalaf, 2007). There is no distinct policy to manage preventive maintenance. Moreover, there is an insufficient stock from necessary materials. Interviewees in large part attributed this situation to insufficient numbers of engineers and technicians, as well as to their limited experience. This situation makes them unable to perform preventive

and corrective maintenance on a regular basis for a huge complexity of diverse equipment within MOH. That is besides idle donations that complicate the issue of maintenance; some donated equipment sent to MOH with beginning of the second intifada was either out of use, second hand, or/ and had no maintenance opportunities.

6.4.1.4.2 Drugs risk identification

Regarding pharmaceutical situation in OPT, it was revealed that it reaches a crisis level. People in OPT lack access to drugs although Palestinian EDL is very large comparing with majority of World countries and even with list of WHO. It contains 526 drugs in 2012 (MOH, 2012). Moreover, an imbalance between available drugs and health outcomes is clear; costly EDL does not efficiently improve Palestinian health status.

Interviewees identified that drugs are misused in OPT; prescribing and dispensing practices are inefficient. There are no proper and obligatory guidelines that promote rational use, and encourage use of generic and local drugs. This situation harms patients, and wastes financial resources particularly in light of a widespread misleading culture regarding pharmaceutical use within vast majority of Palestinians. However, although about 20% of total operational health expenditures were spent on drugs in 2005 (WB, 2008), interviewees considered allocated financing for drugs insufficient as it is the case for the whole system at MOH. Furthermore, they identified that drug storage and distribution practices are not carefully managed. As a result, drugs are unavailable in appropriate quantities and

qualities, at right time and place, at central and provincial levels. At this regard, interviewees insinuated to one major cause of distribution's delay that causes by Israeli practices. This clearly appeared at time of Gaza war; needs of GS from drugs were not carried to it, thus they negatively accumulated at warehouses in Ramallah.

After all, interviewees made aware of medical waste. They believed that MOH has achieved some progress comparing with veil situation at occupation time. Nevertheless, it was revealed that whilst MOH, in most of its health institutions, employs private cleaning companies whose workers use traditional ways of cleaning, it does not seriously train or firmly oblige such companies on healthy cleaning. Moreover, although projects of medical waste management need enormous investments, available resources allocated by MOH for them are very limited.

6.4.1.5 Health financing risk identification

Another important message was received through analysis. It implies that recent tragic financial deficit within MOH is considered the most challenging constraint that impedes health reform process. The gap between available dropping recourses and growing expenditures is widening rather than contracting. Such situation is expected to escalate. Expenses of MOH increased by 62% during the period 2000 to 2005 (WB, 2008). The considerable loss in MOH's revenues, and the rise in its costs are directly attributed to current GHI scheme. Because of such situation, MOH has become unable to fulfil its obligations to employees, suppliers

and patients alike. Moreover, it was revealed that current formula of resource allocation mechanisms at MOH is inefficient and inequitable. High expenditures are spent on salaries, drugs, and treatment referrals; leaving very scarce funding to be allocated to other functions of MOH. In 2009, 48% of MOH's budget was spent on salaries alone, and 34% on outside treatment referrals (MOH, 2011 b). Interviewees believed that MOH cannot effectively determine the most pressing spending priorities in order to get the best out of limited resources, and also cannot generate additional funds. Available alternatives of funding mechanisms cannot rationalize use of all available recourses, and cannot stimulate cost containment practices. Accordingly, more carefully made choices are urgently required.

Another important issue highlighted through analysis is absence of emergency funds. No fund is allocated to effectively respond to emergent costs of MOH, that are almost considerably high in light of sever financial shortfalls from which MOH suffers. If a shortfall in one program appears, MOH addresses MOF and council of ministers to cover it. However, this procedure takes long time and thus limits the effectiveness of dealing with emergent cases.

6.4.1.6 Leadership risk identification

Based on the whole previous analysis, and despite of complex context in which MOH is working, that makes priority setting process according to Hamdan and Defever (2002) "more than challenging", it was

obviously observed that MOH has in general made remarkable progress in developing a relatively strong heath system in OPT. Nevertheless, interviewees believed that MOH has somewhat failed in its major role of leading the whole health system.

However, there are many obstacles that face MOH in performing its leadership role. Therefore, MOH should embrace that much more difficult efforts must be made rather than from earlier ones that were exerted so far. In addition to all previously mentioned obstacles at former blocks, which challenge the performance of MOH, interviewees identified the following damaging factors that particularly challenge efficient health system management in OPT:

- Continued and complex Israeli occupation that limits MOH's efforts in providing basic emergent services only, and hinders developing a really strong health status at OPT.
- Palestinian internal separation that happened in June 2007, which politically leads to a division in health sector management into two duplicated institutions.
- Disruption of PLC, which seriously hampers either updating for existing legislations and adopting of new ones.
- Lack of complete membership of WHO. This limits MOH's ability to make decisions that serve health in OPT. Membership of WHO can

consultatively and technically support building a Palestinian strong health system.

- Increasing number of MOH's responsibilities. MOH has a mixture of many difficult tasks. It provides preventive and curative services. Moreover, it is responsible for general health policy-making and organizing as well as regulating services of other providers, at national and district levels.

- Increasing burden on services of MOH's institutions especially with issuance of Al-Aqsa intifada insurance, besides burden that is caused by natural increase of population.

- Insufficiency of budget that is allocated to MOH, in addition to its high operating costs and capital expenses.

- Great rely of MOH on international aids that do not fall within a comprehensive developmental process. They rather fall within emergent humanitarian subsidies with fast effects that aim at mitigating consequences of Israeli occupation.

- Insufficient monitoring as well as poor reporting and supervising systems that together encourage corruption and cronyism.

- Modest efforts of PA to encourage investments in health sector. However, cost of health investments in OPT raises more due to complex political and economic situation.

- Externally imposed pressures on MOH regarding its style of managing health sector to serve particular agendas. Moreover, many different bodies outside MOH discuss health issues, and carry out some of pure MOH's roles although they are non-specialist in health field.

- Weak cooperation and ineffective communication channels within MOH itself as well as with many other external parties that are, direct and/ or, related to health.

6.4.2 Risk evaluation (assessment)

At this stage, risks associated with different building blocks are assessed and prioritized for investment. To conduct this prioritization, the two previously mentioned parameters; RPN and criticality no., are jointly used. Therefore, a number of key decision makers at MOH were asked to prioritize three features of all risks associated with each block. These features are severity, likelihood and detectability before occurrence. Next, weighted average is calculated for three feature of all risks associated with each block. Later, risk priority and criticality numbers are calculated for each block.

However, table (6.1) represents weighted average for three features of all risks associated with each block; severity, likelihood and detectability before occurance, and calculated RPNs.

On the other hand, table (6.2) represents calculated criticility number of all risks associated with each block.

Table (6.1): Weighted averages of severity, likelihood and detectability of risks associated with building blocks, and calculated RPN

Block/Scale	Severity	Likelihood	Detectability	RPN
Service delivery	3	4	1	12
Workforce	4	4	3	48
Information	4	3	2	24
Equipment and constructions	4	3	4	48
Drugs	5	3	2	30
Finance	4	2	3	24
Leadership	5	4	4	80

Table (6.2): Criticality no. of risks associated with building blocks

Block	Criticality no.
Service delivery	12
Workforce	16
Information	12
Equipment and constructions	12
Drugs	15
Finance	8
Leadership	20

However, the results obtained using the two parameters, RPN and criticality number, reveal that leadership block has the highest priority for corrective actions. Remaining building blocks are prioritized according to same criteria as follows: workforce, equipment and constructions, drugs, information, finance and finally with least priority is service delivery.

6.4.3 Business impact analysis

This section analyzes the potential impact on the health system when normal operations of each building blocks is interrupted. For all building blocks, the impact is reasonably ratiocinated from a handbook of WHO for year 2010. This handbook monitors the building blocks of health systems.

6.4.3.1 Impact of service delivery interruptions

Service delivery is the output of all inputs into the health system. Good service delivery requires good inputs into the system to meet the health needs of population. According to WHO (2010), if the functions of health system are interrupted, it will be unable to successfully conduct the following interventions related to health service:

- Provide a comprehensive range of preventative, curative, palliative and rehabilitative services, and health promotion activities.
- Strengthen the health system based on primary health care.
- Build required capacity to provide health services as trained staff, guidelines, infrastructure/amenities, supplies/equipment, diagnostic capacity, medicines and commodities.
- Well manage health services to achieve minimum wastage of resources.
- Generate accepted methods and indicators for assessment and progress measurement.
- Assess and support quality of health services and their adherence to standards, i.e. to be “effective, safe, centred on the patient’s needs and given in a timely fashion”.
- Measure the patient satisfaction and utilization of health services.
- Provide accessible services by removing constraints to using health services as those of cost and geography.

- Create a baseline database of all health facilities and offered services from multiple data sources. These databases should be updated on a regular basis to provide a feedback to planners in order to monitor the system.

- Develop appropriate mechanisms for the participation of population and civil society to ensure that people receive the intervention they need.

6.4.3.2 Impact of health workforce interruptions

Health workforce is responsible for keeping health systems and services running. They include a wide staff range of clinical as well as management and support staffs needed to organize and deliver health services. According to WHO (2010), if the functions of health system are interrupted, it will be unable to successfully conduct the following interventions related to health workforce:

- Support the formulation, monitoring and evaluation of health workforce plans, strategies and policies at national level.

- Strengthen the collection and processing of timely, reliable and relevant data, as well as the dissemination and utilization of such data for policy and managerial decisions.

- Take new approaches and actions to strengthen and scale up education and training of health workers.

- Strengthen recruitment and deployment systems, in addition to manage migration and its impact.

- Optimize health workers motivation and productivity.

6.4.3.3 Impact of health information interruptions

Health information building block is a prerequisite for good management of all remaining blocks. However, availability of information is not the only matter; effective use of such available information is on an equal importance. According to WHO (2010), if the functions of health system are interrupted, it will be unable to successfully conduct the following interventions related to health information:

- Build strong and effective national-level knowledge and databases that can capture comprehensive, reliable, and timely data needed to make appropriate decisions across all other health system building blocks.

- Convert raw data into information useful for monitoring and evaluation of performance in order to identify needs, strengths and weaknesses; to make recommendations for improvement and to set priorities.

- Strengthen and develop new technologies to improve data generation, collecting, management, analysis, validation, dissemination and use practices.

- Engage in a systematic review and assessment of all existing information in terms of data availability, quality and use (outcomes).

- Support patient level data that serves as the basis for clinical decision-making.

- Provide information in formats that meet the needs of all relevant users as private institutions, NGOs, academic institutions, professional associations, and media.

6.4.3.4 Impact of medical products and technologies interruptions

Equitably available and affordable essential medicines, vaccine and technologies are central to a functioning health system that saves people's lives and improves their health. According to WHO (2010), if the functions of health system are interrupted, it will be unable to successfully conduct the following interventions related to medical products and technologies:

- Develop official pharmaceutical policies, practices, regulations, guidelines and standards.

- Develop an essential drug list that is updated regularly.

- Assess and afford essential medicines and vaccines at all times, with assured quality, and at a reasonable price.

- Provide equitable access to essential facility infrastructure, equipment, and supplies of assured quality, safety, efficacy and cost-effectiveness on a sustainable basis.

- Extensively promote and implement strategies that support rational use of medicines by examining prescribing and dispensing practices as well as user adherence.

- Systematically gather and report reliable information on procurement, supply, and conservation conditions, as well as distribution systems for monitoring and assessing.

6.4.3.5 Impact of health financing interruptions

A key determinant of health outcomes is available financing for health system. Adequate funds for health are to be effectively collected and allocated to ensure sustainability of achieved and proposed interventions. According to WHO (2010), if the functions of health system are interrupted, it will be unable to successfully conduct the following interventions related to health financing:

- Effectively develop financing policies that improve health outcomes from available resources.

- Sufficiently raise additional funds for health, especially from sustainable sources, to provide universal coverage of key health interventions at the required level of quality.

- Carefully capture efficiency and transparency, and reduce resource utilization waste and corruption within health financing system.

- Promote good procurement practices that achieve proper allocation of resources as those of inventory management, aggregate purchasing, bidding processes, etc.

- Provide financial risk protection and equitable coverage for all population particularly the vulnerable groups.

- Report regular, reliable and accurate information that tracks availability of health funds from all sources, as well as disbursements to all interested parties particularly for purpose of development assistance.

6.4.3.6 Impact of leadership interruptions

This block is the one that guides and integrates all previously mentioned health system building blocks in order to achieve required results. According to WHO (2010), if the functions of health system are interrupted, it will be unable to successfully conduct the following interventions related to leadership:

- Ensure that appropriate policies, strategies and regulations are in place to promote good health leadership and governance.

- Set a national vision for the future, as well as needs and priorities for essential health interventions.

- Effectively combine formulation with effective implementation and oversight in order to promote accountability and transparency in the health sector management.

- Develop suitable indicators and mechanisms to measure and monitor progress in actions.

- Promote and mange stakeholder participation, outline their roles, and build consensus among them regard national multisectoral programmes, gaols and frameworks.

6.5 Identifying risk mitigation strategies

Many questions emerge from pervious analysis and discussion. Most important and serious one is about urgently needed strategies to correct such unsustainable situation, and to mitigate its effects. This question has no definite answer yet in available literature regarding Palestinian context. However, it is hoped that the following advised strategies in addition to later recommendations could contribute in providing a considerably gratified answer. The identified strategies are as follows:

- The already existing services of MOH must be re-evaluated taking into consideration that sustainability and high quality of any health service must be and continue be critical determinants of whether or not it can be provided. For some types of tertiary services that are mostly needed, MOH can develop centres of excellence rather hospitals in order to satisfy cost and quality determinants. Moreover, MOH must equitably redistribute its services according to demographical and epidemiological needs assessment.

- MOH must promote primary health services as the effective backbone of health system in OPT. This can be accomplished by upgrading the package of PHC services, extending it to enclose preventive and simple

curative ones, as well as by strengthening internal referral system between different levels of services.

- Based on researches' finding, a priority must be given for health promotion and disease prevention programs in OPT. It is important to activate the mechanisms of surveillance and controlling particularly regarding chronic diseases, hand in hand with enhancing accomplished achievements regarding acute ones. Cooperation with all interested partners, particularly media, is a forceful vehicle for producing gains.

- People must be prepared to take a central role in providing their health needs, and needs of their family members, as well as those of society members especially the old and vulnerable.

- Responsibilities of each provider must be clearly identified. Moreover, MOH must gradually transfer the provision of some specific services, particularly curative ones to other providers, and promote them to concentrate more deeply on their responsibilities.

- MOH must strengthen more effectively, transparently and restrictively the treatment referral system with other providers, inside and outside OPT, by improving the contracting procedures.

- The cases of medical complications and unintentional errors must be carefully studied by specialists to take lessons. Moreover, the misleading overlapping between concepts of complications, unintentional errors and negligence, that sharply exists within public, must be effectively removed. As well as, mechanisms by which these

issues can be handled must be clearly identified and strengthened. In this regard, the process of preparing and implementing TIPs must be expedited, and its scope must be widened.

- Quality at MOH must be widely institutionalized. MOH should implement a national strategy on health care quality improvement. Accordingly, the results of current interventions are to be evaluated in order to disseminate successful ones.

- A health human resource policy within MOH, that can hire, retain and utilize them effectively, must be urgently created taking into account MOH's needs and recommended international standards.

- The problem of brain drain must be effectively managed by negotiating with recipient countries to get the best win-win situation that exploits the positive opportunity provided by migrants in developing Palestinian health system. This situation implies transferring experience, qualifications, technologies and knowledge.

- A higher priority must be strategically given for improving education and training programs including those of Continuing Medical Education (CME) in cooperation with all related parties. This may require the following:

  1. Assessing and strengthening available specialists included in the residency program, and delaying expansion of new specialists.

2. Reducing the number of training centres, and linking them with international institutions.

3. Attracting skilled professionals from other providers, in OPT and abroad, to become tutors at this program, as well as effectively utilizing the talents of available highly skilled professionals. They must supervise and train students to build required capacities rather than providing normal health care for people.

- An appropriate evaluation system must be systematically designed by specialists and consultants from MOH and outside. This new system must imply innovative but careful shift from penalties to bonuses and incentives; to motivate workers and enhance their performance. However, much more attractive motivations are to be provided to some selected professionals with high qualifications to gain better results.

- A fairly appropriate appointment system must be developed. No duplication between clinical and administrative duties would be permitted. Recirculation is necessary when it is possible. A careful shift to decentralization in many cases may become fruitful.

- Available health information system within MOH must be urgently strengthened to become rigidly able to provide more comprehensive and accurate data. Moreover, provided data must be used more systematically in informing administrative and clinical health systems, policies and operations.

- The processes of data gathering and dissemination regarding health indicators and topics in OPT must be institutionalized, particularly about chronic diseases. Current databases must be expanded, and additional ones must be developed. In addition, an electronic link must be elaborated between all related parties, inside and outside MOH, that produce or/ and use health data.

- An explicit national policy concerning maintenance must be developed to effectively regulate and schedule maintenance operations. This may entail keeping sufficient inventory from carefully selected equipment and spare parts; to meet the demand from all governmental health institutions.

- Current estimation practises of needs for pharmaceuticals and medical devices must be revised. This can be successfully applied through drawing correct, complete and regularly updated maps for all properties of the whole governmental health system in order to identify shortages and surpluses. Accordingly, the development of integrated and computerized database within supply unit must be accelerated, and the connection with all administrations of MOH must be provided

- Current procurement practises must be revised. Specialized professionals who combine knowledge with skills and experience must be assigned in order to evaluate cost, safety and effectiveness of goods, supplies and services. This requires speeding up the implementation of public procurement law, as well as it may require the involvement of

specialized third parties, and/or the use of computerized programs to enhance reimbursement decisions. Moreover, advantages of e-procurement practices must be carefully utilized.

- The reliability of local suppliers, contractors and designers must be re-evaluated using modern, clear and fair mechanisms of evaluating, basing on well-established computerized databases. In addition, contracting conditions must be renewed. An effective mechanism to pay their payable accounts back on time must be established. Moreover, MOH must co-ordinate with labor unions, local universities and schools to aware local designers and contractors about the privacy of health construction projects. This may require consultation from international agencies.

- More equitable and appropriate mechanisms must be established to mange interventions of equipment and construction projects expansion and distribution, depending on clear studies of population distribution and their actual needs for such interventions.

- Legalisations that govern managerial, regulatory and monitoring roles of MOH over pharmaceuticals must be updated. This may require establishing specialized departments for clinical pharmacy, in addition to providing training programmes concerning capacity building for pharmaceutical professionals at MOH, as well as developing more SOPs. In addition, roles and responsibilities of all parties related to pharmaceutical issues must be clearly identified

- The existing EDL must be comprehensively re-evaluated and regularly updated to favourably generate appropriate health and financial gains. This must be accompanied with effective revising for current practices of prescribing and dispensing in order to develop formal protocols at national level. Accordingly, training programmes must be delivered to prescribers and dispensers. Their compliance with such developed protocols must be effectively monitored and evaluated.

- More efficient guidelines of Palestinian GMP must be developed. More training on them must be provided to local manufacturers, and their compliance must be monitored. This may implies modernizing many of existing production lines and adding much more new ones.

- Clinical engineering departments must be established at districts or at least at central level to ensure proper management and use of medical equipment.

- Effective procedures and conditions for drug storage, distribution and disposing must be well established taking into consideration the requirements of WHO.

- An appropriate, reliable and sustainable health care financing system must be developed. This surely implies designing and implementing a comprehensive and mandatory health insurance scheme at national level, after conducting actuarial studies. Accordingly, to enhance

sustainability of such scheme, a specialized budget for it can be developed, and fair co-payment levels are to be carefully constructed.

- A more innovative, equitable and efficient disbursement policy must be developed. An independent nongovernmental institution may be called for monitoring on this policy. Moreover, effectiveness and predictability of aid flows must be improved. Duplication across donors, and wastage of scarce resources must be reduced and be later completely avoided. This may implies authorizing one party to organize all donations via a formally formulated policy that clearly shifts donors' concern from supporting particular projects to supporting overall national strategy of MOH including operating expenses.

- An appropriate environment for applying the new style of budgeting; performance-based approach, must be provided Therefore, it is implausible to formulate effective standards for measuring results.

- Licensing systems for health professionals, products and institutions must be strengthened via appropriate and rigorous measures and regulations at national level. This implies developing a strict and clear regulatory regime of surveillance and accountability.

- Roles of both types of media, inside and outside MOH, must be effectively re-organized and enlarged.

- A fertile ground for investments in health field must be created by providing necessary support and motivation from PA.

6.6 Education and training

At this stage, MOH must communicate the importance of its developed continuity plan for all related actors particularly its personnel. Moreover, roles and responsibilities of them must be well clarified for and distributed among them in order to avoid parallel approaches. Therefore, it is important at this stage to select the appropriate team of BCM that must be capable to work hard and realize the benefits of the plan.

6.7 Implementation and testing

In order to ensure that this textual plan is workable, it is necessary to implement it. At this phase, MOH is recommended to carry out many improvements in its style of managing health system in OPT according to mitigation strategies that are suggested at section 6.4.

Since it is extremely difficult and expensive for MOH to implement all these mitigation strategies bodily, it is recommended to gradually carry them out. MOH can begin with mitigation strategies regarding a particular block that has the highest priority for implementing corrective actions, and gradually move towards others with lower priorities. Accordingly, the results obtained from using the two parameters, RPN and criticality number at risk evaluation (assessment) phase can be can applied here to successfully determine the most urgent mitigation strategies to be implemented.

6.8 Monitoring and controlling

At this phase, MOH must evaluate its progress in implementing the mitigation strategies in order to identify needed adjustments, and to draw lessons for further improvements. It must organize and chair frequent coordination meetings with representatives of all participated actors.

In this regard, MOH can be exposed to the experience of other countries particularly post conflict ones, to learn lessons from their successful and failed approaches. Moreover, it must ask help from external organizations and consultants, national and international alike. It is highly recommended to call WHO to engage in the whole plan with much deeper engagement at this critical phase.

6.9 Review

Since planning is an environmentally dependent process, reviewing has become an endless practise in light of huge and diverse changes that any organization undergoes. It is recognized that present and future of Palestine are instable with rapid changes on the ground. Therefore, MOH should accommodate these changes, and effectively keep its plan up to date. However, as instability in OPT is considerably severe and long lasting, it is better to review BCP on change based; when changes occur, rather than sticking to definite calendar based trigger.

Chapter Seven

Conclusions and Recommendations

7.1 Overview

This chapter summarizes conclusions, recommendations and suggestions for future researches based on results drawn from chapters of data analysis and discussion. According to Walliman (2006), coming to conclusions is the most valuable work in research; if it is insufficient, research efforts and outputs would be devalued.

7.2 Conclusions

Palestine is currently instable at political and economical levels. Moreover, unfortunately, the situation on the ground is unlikely to be significantly improved in the near future.

In that respect, after carrying out data collection and data analysis phases, it is clearly found that sustainability of many endeavours of MOH is ignored or forgotten. MOH should recognize that despite its current polices and plans produce many benefits, they may generate much harm and deficiencies on the long run especially for tertiary services. Accordingly, today is the perfect time for PA in general and MOH in particular to meaningfully address the issue of sustainable interventions, and thus to make proactive changes by formulating a continuity plan under the intensified external and internal complexities, in particular political ones.

It is clearly observed that the Israeli occupation that is considered the historic and present impediment to health reforms in OPT, makes sustainability of health interventions out of reach by its widespread direct and indirect threats to such interventions. Therefore, success of any developed plan for continuity will be limited unless real support from and effort of other related actors are brought to bear on developing a comprehensively intersectoral plan towards extremely complex and ambiguous health status at OPT. Accordingly, MOH must work towards regaining the trust of all; government, policy makers, donors, public, health and non-health national and international organizations, and call them to participate.

7. 3 Recommendations

In addition to what has been previously discussed and suggested through various chapters of this research, particularly what has been introduced through this chapter at section of identifying risk mitigation strategies, this section illustrates general recommendations that MOH should take into consideration to enhance people's right of getting safe, high quality and, more importantly, sustained health services. These recommendations are the following:

- One important recommendation is provided to PA in general to carefully develop acts relevant to this area of management i.e. continuity management.

- It is recommended to use this developed plan including its articulated framework by decision makers at MOH in order to develop and sustain safe and high quality health services at OPT. Moreover, this plan may be used as a roadmap for developing a similar one for the whole PA in future.

- Moreover, it is recommended to encourage all related parties to submit their views and feedbacks about this plan and its framework for the purpose of future improvement and updating.

- A deep review of the current internal political situation must be conducted. All parties must honestly work to address the gap between two parts of homeland; WB and GS, in order to promote achievements and address failures in the process of building one strong health system in OPT.

- Developing health system in Palestine requires parallel initiatives in all other contexts; political, economic, social and technical. Therefore, it is recommended to accomplish such these all initiatives beginning with a hard struggle towards gaining sovereignty and control over all recourses.

- More innovative strategies compatible with Palestinian constraints must be established based on more effective and consentient health priorities. MOH can ask support from WHO, as well as national and international consultants in some specific domains. Moreover, planning must be more

closely integrated with implementation, with meaningful input from all relevant stakeholders in order to increase their commitment to work.

- An effective recommended approach for MOH is to carefully exploit the promising development opportunities in shifting its efforts from relief towards capacity building taking into consideration that achieving slow but sustainable and useful results may be more valuable. Moreover, MOH must well maintain and utilize all its achieved interventions while identifying and implementing new ones.

- Accomplished and proposed policies and reforms are to be carefully and periodically reviewed and assessed via measurable and realistic indicators. A separate department for monitoring and evaluation of progress must be established, and an independent non-governmental institution can be called to conduct it.

- MOH's roles of leadership and delivery of health services must be rationalized. An important fact that is almost overlooked and/or forgotten that is MOH must delegate its simpler tasks, particularly non health ones, to other parties, provided that MOH must firmly hang on a stewardship role needed for planning, regulation and for other functions that no one else can effectively afford. In future, privatization of almost all services of MOH, including health ones, may become a must.

- Confidence of community with governmental health services, workers, equipment and facilities must be strongly created and preserved. Support of community members to public health sector is to be

increased through effective collaboration with all interested parties particularly media. Accordingly, community participation must be institutionalized. People should be empowered and provided a role in decision-making and oversight to enhance accountability and to ensure that provided services meet their priority needs.

- MOH must be intrepid to admit that it has failed in dealing with emergencies. Successes and failures of successive emergencies are to be reviewed, and useful lessons are to be learnt. Later, MOH should rebuild its capacity to better manage and monitor the persistent emergencies and threats.

- Moreover, all health and non-health related parties; as other ministries, municipalities, media, etc., must be made aware of current and expected emergencies to PA in general and Palestinian health sector in particular. They must be empowered to plan and work. Therefore, it is recommended to develop a comprehensive multisectoral emergency plan at national level, in cooperation with all rthese parties, and to carry out almost complete training that examines the effectiveness of such plan as well as the preparedness of emergency team.

7.4 Future researches

This research reveals areas that would benefit future researches. A further research is needed to study and assess the performance of MOH in case it applies this plan and its framework. However, this study particularly focuses on governmental health provider at the time that health services in

OPT are provided by four providers including MOH. Continued health services at OPT cannot be guaranteed in isolation of all providers, or even some of them. Accordingly, this research can tangibly benefit in preparing the urgently needed continuity plans for private, NGOs and UNRWA providers. By doing this, it becomes easier to integrate all prepared plans into a single intersectoral one that can be optimized for comprehensive strengthening of safe, sustained and high quality health services in OPT.

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Appendices

Appendix (1): List of interviewees

Interviewee name	Job title	Interview date
Dr. Anan Al Masri	Deputy Minister of MOH	6/2/2012
Dr. Qasem Ma'ani	General Director of Health Policies & Planning / General Administration of Health Policies & Planning	17/1/2012
Dr. Naem Sabrah	Current General Director of Health Policies & Planning / General Administration of Health Policies & Planning	1/11/2012
Eng. Barraq Juma'h	Director of Projects Management Department / General Administration of Health Policies & Planning	17/1/2012 & 1/11/2012
Dr. Jawad Bitar	Director of Palestinian Health Information Centre/ General Administration of Health Policies & Planning	Several times
Dr. Said Al Hammouz	General Director of Health Education / General Administration of Health Education	22/1/2012
Mr. Mohammad Atyani	General Director of Financial Affairs / General Administration of Financial & Administrative Affairs	22/1/2012
Mrs. Hanan Hijazi	Chief of Health Insurance Section/ General Administration of Financial & Administrative Affairs	4/6/2012
Eng. Imad Al Khateeb	Director of Engineering & Computer Unit	Several times
Mr. Fakhree Al Ali	Director of Public Relation Unit	6/2/2012
Dr. Rezeq Othman	Director of Procurement Unit	6/2/2012
Mrs. Asma Shkokani	Chief of Contracts Division / Procurement Unit	4/6/2012
Dr. Ghada Bishtawi	Chief of Medical Supplies Procurement Division/ Procurement Unit	4/6/2012
Mr. Mohammad Sobuh	Administrative & Financial Manager / General Administration of Hospitals	Several times

Interviewee name	Job title	Interview date
Dr. Ekhlas Samaro	Director of Pharmacy Department / General Administration of Hospitals	10/1/2012
Eng. Hisham Badawi	Director of Hospitals Maintenance Department / General Administration of Hospitals	Several times
Mr. Ammar Saabouh	Director of Quality Department / General Administration of Hospitals	10/1/2012
Dr. Rania Shaheen	General Director of Pharmacy / General Administration of Pharmacy	1/4/2012
Dr. Laith Abu Hijleh	Chief of Pricing section / Pharmaceutical Policies Department / General Administration of Pharmacy	1/4/2012
Dr. Safa' Bleibleh	Director of Dangerous Drugs Department / General Administration of Pharmacy	Several times
Dr. Fadia Salameh	Director of Drugs Control Department / General Administration of Pharmacy	30/4/2012
Mr. Mohammad Al Mahareeq	Director of Quality Department / General Administration of Pharmacy	4/6/2012 (by telephone)
Rafidia Hospital, Nablus (12+13+19/12/2011,18/1/2012)		
Mr. Samer Al Awartani	Financial & Administrative Director	
Mrs. Salma Abu Fayed	Head of Surgery Nursing Division	
Mrs. Rawd Assaf	Quality Coordinator	
Eng. Nabeel Mansour	Head of Engineering & Maintenance Department (Member of Procurement Committee)	
Eng. Maamoun Al Kokhon	Engineer at engineering & Maintenance Department	
Eng. Mosa Eshtaieh	Engineer at engineering & Maintenance Department	
Mrs. Tahani Fattoh	Head of Pharmacy Department	
Thabit Thabit Hospital, Tulkarem (14+15/12/2011)		
Dr. Husam Tanib	Manager	
Mr. Jihad Musiei	Financial Director	
Mr. Fouaad Abu Hadid	Quality Coordinator	

Interviewee name	Job title	Interview date
Eng. Loa'y Elian	Head of Engineering & Maintenance Department	
Mrs. Samar Thabit	Head of Pharmacy Department	
Dr. Thaer Yaseen	Physician	
Mr. Ayman Rashed	Head of Radiology Department	
Mrs. Basemah Qashua	Head of Gynaecology & Obstetrics Nursing Division	
Mr. Ezz Edien Jerab	Head of Laboratory Department	
Al Wattani , Nablus (12+13+19/12/2011)		
Dr. Loa'y Shaheen	Medical Director	
Mr. Allan Sawwaf	Financial & Administrative Director	
Mr. Mohammad Sama'nah	Engineer at Engineering & Maintenance Department	
Mr. Ma'zouz Asadi	Pharmacist at Pharmacy Department	
Mr. Jebril Bishtawi	Quality Coordinator (Captain Nurses/ Nablus)	
Mr. Nazieh Azzam	Radiologist	
Mrs. Iman Al Khaiiat	Head of Statistics Division	
Mrs. Afifah Naser	Head of Laboratory Department	
Mrs. Muna Shalabi	Head of Nursing Department	
Khaleel Sulaiman, Jenin (3/1/2012)		
Mr. Isam Alawneh	Financial & Administrative Director	
Mr. Maher Hoshyyah	Quality Coordinator	
Eng. Wa'el Qtait	Engineer at Engineering & Maintenance Department	
Mrs. Lina Al Omari	Pharmacist at Pharmacy Department	
Mr. Husin Kabaha	Head of Nursing Department	
Darweesh Nazzal, Qalqilia (4/1/2012)		
Mrs. Myyasser Mansour	Manager	
Mrs. Lana Nazzal	Quality Coordinator	
Eng. Mohannad Helal	Head of Engineering & Maintenance Department	
Eng. Ammar Al Khateeb	Engineer at Engineering & Maintenance Department (Member of Procurement Committee)	
Mr. Khalil Abed Al Rahman	Head of Pharmacy Department	
Mr. Sa'eb Nazzal	Head of Finance Department	

Interviewee name	Job title	Interview date
Mrs. Muna Al Sharief	Head of Income Division	
Dr. Ramez Abde Allah	Physician	
Alia ,Hebron (11/1/2012)		
Mr. Mohammed Al Khamaiseh	Financial & Administrative Deputy Director (refused to talk)	
Mrs. Safaa Al Mohtaseb	Quality Coordinator	
Eng. Abed Al Afo Nayroukh	Head of Engineering & Maintenance Department	
Dr. Sameer Bader	Head of Pharmacy Department	
Mr. Mohammed Al Mohtaseb	Head of Supplies Warehouses	
Mr. Nabeel Al Shirbi	Head of Finance Department	
Mrs. Sumayyah Ghannam	Head of Income Division	

Appendix (2): Questions of interviews

Questions of health workforce in general

1. What motives do you think they strongly encourage health workers to leave MOH, and those discourage them to leave? How can MOH retain and motive them?
2. Are you satisfied with available health workforce within MOH from qualitative and qualitative perspectives? Why? What about its current appointment system? How can MOH improve it?
3. Are you satisfied with current education system within MOH? Why? How can MOH improve it?
4. Are you satisfied with current training system within MOH? Why? How can MOH improve it?
5. Are you satisfied with current evaluation system within MOH? Why? How can MOH improve it?
6. Are you satisfied with planning and decision-making processes among MOH? Why? How can MOH improve them?
7. Are you satisfied with health care services provided by MOH, in particular with health promotion and disease prevention? Why? How can MOH compensate for any delinquency?
8. Are you satisfied with received recognition from community, their participation in planning process, and their social responsibility? How can MOH enhance them?

9. Are you satisfied with performance of professional unions, and that of committees within MOH institutions? Why? What do you more expect from them?
10. Who is the accountant for medical negligence? How can MOH reduce it?
11. Are you satisfied with performance of MOH in dealing with outside referrals, medical negligence, and corruption activities? Why? How can MOH improve it?
12. Are you satisfied with available information, equipment, constructions, drugs and finance within MOH?
13. Are you satisfied with performance of MOH in emergencies of all types as governmental workers strike, swine flu and such other epidemics, as well as emergencies during the Israeli invasion? Why? How can MOH better manage it in future?
14. What is your dream about Palestinian health system?

Questions of workers and top managers specialized in health information

1. Can you tell us about PHIC and its relation with PCBS?
2. What are the current methods used for data collecting, dissemination and preservation? Are they efficient? Why? How can MOH improve them?
3. Are you satisfied with available data within MOH from qualitative and quantitative perspectives? Where does MOH still have information shortage or asymmetry?
4. Does MOH store a duplicate copy of software and important data in a secure off-site location?
5. What projects and technological interventions does MOH complete for improving its health information system? What about current and projected ones? What are the major obstacles and how does MOH deal with them?
6. Are you satisfied with available requirements of health information system within MOH?

Questions of workers and top managers specialized in equipment & constructions

1. How does MOH manage and monitor the procurement process? Is this manner efficient? Why? How can MOH improve it?
2. Are you satisfied with available equipment and constructions within MOH? Why?
3. Does MOH achieve rationale use of available equipment and constructions? How?
4. How does MOH mange preventive and corrective maintenance of medical equipment? Is this manner efficient? Why? How can MOH improve it?
5. How does MOH store and distribute equipment? Is this manner efficient? Why? How can MOH improve it?
6. How does MOH get rid of stocks of equipment? Is this manner efficient? Why? How can MOH improve it?
7. How does MOH cooperate with donors? Is this manner efficient? Why? What about cooperation with other providers? How can MOH improve it?
8. How does MOH deal with emergencies in its supply of equipment and constructions? Is this manner efficient? Why? How can MOH improve it?

Questions of workers and top managers specialized in drugs

1. How does MOH enact drugs' regulations and put their prices? Is this manner efficient? Why? How can MOH improve it?
2. Can you tell us about Palestinian EDL? How does MOH prepare and update it? Is this manner efficient? How can MOH improve it?
3. What are current sources of drugs available to MOH? Are they adequate?
4. Can you tell us about the local drug industry? How can MOH encourage it?
5. How does MOH cooperate with donors? Is this manner efficient? Why? How can MOH improve it?
6. Are you satisfied with pharmaceutical description and prescription patterns within MOH? Why? How can MOH improve them?
7. How does MOH purchase drugs? Is this manner efficient? Why? How can MOH improve it?
8. How does MOH store and distribute drugs? Is this manner efficient? Why? How can MOH improve it?
9. How does MOH get rid of stocks of drugs? Is this manner efficient? Why? How can MOH improve it?
10. Are you satisfied with available requirements of pharmaceutical system within MOH? Why?
11. How does MOH deal with emergencies in its supply of drugs? Is this manner efficient? Why? How can MOH improve it?

Questions of workers and managers specialized in finance

1. How does MOH prepare its budget? How does it deal with competing choices when allocating resources? Is this manner efficient? Why?
2. What are current sources of fund available to MOH? Are they sufficient? How can MOH raise and add additional funds?
3. How does MOH cooperate with donors? What are the challenges and the needed improvements regarding donations?
4. Are you satisfied with transparency and accountability within MOH's financial system? Why? How can MOH encourage them?
5. Are you satisfied with available requirements of financing system within MOH?
6. Can you tell us about the current health insurance scheme? How does MOH administrate it? Is this manner efficient? Why? How can MOH improve it?
7. Can you tell us about the new health insurance scheme? How does it reduce the misuses of free insurance? What are the challenges of implementing it?
8. How does MOH deal with emergencies in its financial position? Does MOH prepare and disseminate emergency plans?

Questions of top managers specialized in planning

1. How does MOH set policies and implement strategies? Is this manner efficient? Why?
2. Are you satisfied with priorities of MOH? Why? Are they compatible with those of other providers? How can MOH improve them?
3. Are you satisfied with cooperation of MOH with other providers, donors, professional unions, as well as community? How can MOH improve such cooperation?
4. Are you satisfied with current systems within MOH for appointment, education, training and evaluation? Why? How can MOH improve them?
5. Are you satisfied with health care services provided by MOH, in particular with health promotion and disease prevention? Why? How can MOH compensate for any delinquency?
6. Are you satisfied with licensing system of health professionals, facilities, and services? Why? How can MOH improve it?
7. Are you satisfied with performance of MOH in dealing with outside referrals, medical negligence, and corruption activities? Why? How can MOH improve it?
8. Are you satisfied with available information within MOH? Why? How can MOH improve it?
9. Are you satisfied with available equipment and constructions within MOH? Why? How can MOH improve them?

10. Are you satisfied with provided drugs by MOH? Why? How can MOH improve them?
11. Are you satisfied with financial performance of MOH? Why? How can MOH improve it?
12. Does MOH conduct what if scenarios and establish emergency plans? If yes, does it cooperate with other providers in this? Does it disseminate, document and update them regularly?
13. How do you see performance of MOH in emergencies of all types as absence of PLC, governmental workers strike, swine flu and such other epidemics, emergencies during the Israeli invasion, as well as developmental plans for health facilities in areas C ? Why? How can MOH better manage it in future?
14. What is your dream about Palestinian health system?

جامعة النجاح الوطنية
كلية الدراسات العليا

إدارة الاستمرارية / حالة القطاع الصحي الفلسطيني

إعداد
أسماء إبراهيم خيري سمارة

إشراف
د. أيهم جعرون

قدمت هذه الأطروحة استكمالاً لمتطلبات الحصول على درجة الماجستير في الإدارة الهندسية بكلية الدراسات العليا في جامعة النجاح الوطنية في نابلس، فلسطين.

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الملخص

تُعتبر إدارةُ استمراريةِ الأعمال فرعاً حديثاً من فروع علم الإدارة، الذي ظهرَ للتقليل من العواقب الوخيمة التي تلحقُ بالأعمال في حالات الكوارث، التي تصيبُ أغلبها بالتأكيد في وقت ما، وكذلك لمنع حدوثها في معظم الأحيان.

تبعاً لبعض المحللين المختصين بالشؤون الفلسطينية, فإنه و بعد قيام السلطة الوطنية وتسلمها لمهام وزارة الصحة في العام 1994 راهنت إسرائيل على انهيار القطاع الصحي في الأراضي الفلسطينية في مدة لا تتجاوز الثلاثة أشهر. إلا أنه وبشكل غير متوقع فقد تم إنجاز عملية إصلاح واسعة في هذا المجال. لكنّ استدامة عملية الإصلاح هذه أصبحت اليوم بعيدة المنال إلى حد كبير بات معه موضوع الاستدامة حلما للمواطن الفلسطيني, و كابوسا لمطوّري و منفذّي السياسات الصحية حيث أنّ مخاطر أكثر تحدياً أخذت تنتشر على نحو متزايد. وعليه غدا تطوير خطة استمرارية العمل لوزارة الصحة الفلسطينية حاجةً ملحةً يجب أن تُأخذ على محمل الجد من قِبل إدارة هذه الوزارة. إنّ هذا البحث يعتبر محاولةً لتلبية هذه الحاجة بما يهدف إليه من تطوير خطة لاستمرارية العمل لأكبر مزود للخدمات الصحية في الأراضي الفلسطينية المحتلة ألا وهو وزارة الصحة الفلسطينية.

لهذا البحث يعتبر إطار للعمل "Framework for Action" الذي رسمته منظمة الصحة العالمية الركيزة الأساسية. لذا، قد تم تحليل لبنات البناء "Building Blocks" في هذا الإطار باستخدام المنهج الموضوعي "Thematic Approach " من أجل التعرف على جميع المخاطر التي تواجه عمل وزارة الصحة الفلسطينية.

ابتدأ البحث هذا باستعراض البحوث والدراسات المتعلقة بمفهومين رئيسيين همـــا إدارة استمرارية الأعمال ومفهوم النُظم الصحية. أعقب ذلك إجراء عدد كبير من المقـــابلات وأخـــذ الملاحظات لتعزيز نتائج هذا البحث.

لقد بات مؤكداً أن الغالبية العظمى من الأبحاث السابقة قد أسهبت فـــي وصـــف هـــذه المخاطر بينما أوجزت عند الحديث عن الحلول. لذلك فإن هذا البحث يقدم حلولاً للمشاكل فضلاً عـــن تقديمـــه تحلـــيلاً لهـــا بمـــا يعرضـــه مـــن مجموعـــة اســـتراتيجيات تخفيـــف الحـــدة "Mitigation Strategies". كل هذا يقدم ضمن خطة الاستمرارية هذه والتي تشـــتمل علـــى مراحل نظرية وأخرى عملية قد أمكن تصويرها جميعا في إطار" Framework" تم عرضه في هذا البحث الذي يقدم أيضا توصيات ومقترحات لأبحاث قد تجرى مستقبلا.

تعتبر نتائج هذا البحث ذات أهمية كبرى بما تقدمه لوزارة الصحة من أجل مســـاعدتِها على توفير الخدمات الصحية الآمنة، المستدامة والعالية الجودة، كـــذلك بمـــا تقدمـــه لمختلـــف الأطراف المهتمة بالوضع الصحي في الأراضي الفلسطينية المحتلة. و ختاماً, يُأمل أن يُسهم هذا البحث في التعريف بهذا الفرع الجديد الذي تم تناوله من علوم الإدارة و بأهميته.