

Social determinants of health in selected slum areas in Jordan: challenges and policy directions

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SUMMARY

Background The unplanned urbanization in Jordan has over time created many informal settlements “slums” around big cities as Amman, Zerka and Aqaba.

The *purpose* of this study was to highlight the most common challenges related to social determinants of health in two selected slum areas in Amman and Aqaba and suggest policy directions and interventions to meet these challenges.

Methods In addition to a prestructured interview with all household heads living in the two slum sites, focus group meetings with a purposefully selected sample of 12 slum dwellers in each site were used to assess the structural and intermediary determinants of health as perceived by slum residents in the two study locations.

Results The study found that slum residents in the two locations suffer from many challenges as severe poverty; unemployment; illiteracy and low education attainments; gender discrimination; insufficient and poor diet; social and official exclusion; unhealthy environment; lack of water supply, electricity and basic sanitation facilities; high prevalence of diseases; and insufficient and inappropriate health services. Specific policy directions to meet these challenges were recommended and grouped into three main clusters: social protection, social inclusion and empowerment.

Conclusion New plans and tools should be developed by local authorities in Jordan to understand, protect, include and empower those vulnerable people who are forced to live in these unhealthy and inhuman environments. Copyright © 2014 John Wiley & Sons, Ltd.

KEY WORDS: social determinants of health; slums; Jordan; urbanization; household

INTRODUCTION

The social determinants of health (SDH) have been described as “the causes of the causes.” They are the social, economic and environmental conditions that influence the health of communities from birth to death, and that potentially can be altered by informed actions (World Health Organization [WHO] 2008).

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Rapid unplanned urbanization creates social stratification manifested by slums and informal settlements. As estimated by the United Nations Human Settlements Program (UN-HABITAT), 43% of the urban population in developing countries lives in “slums” (UN-HABITAT, 2003/1). Slums are constructed of crude materials such as cartons, old wood, thatch or mud brick; people living in these slums have limited or no access to public utilities and face the constant threat of eviction (Biswas and Diener, 2001).

Jordan is a small lower-middle-income country with limited natural resources. Jordan’s population is 6.4 million people (2012). Jordan has one of the most modern healthcare infrastructures in the Middle East. Jordan’s health system is a complex amalgam of three major sectors: public, private and donors. Problems related to accessibility, equity, poor coordination among major providers, inefficient use of available resources, poor management and inappropriate health information system are the main challenges facing the healthcare system in Jordan (Ajlouni, 2012).

Around 82.6% of Jordan’s population lives in urban areas, with about 50% of the population living in the Greater Amman area (Ajlouni, 2011). In 2009, the slum population as percentage of urban was 19.6 (<http://millenniumindicators.un.org/unsd/mdg/Default.aspx>).

The unplanned urbanization has over time created small informal settlements “slums” around big cities as Amman, Zerka and Aqaba with substandard housing or illegal and inadequate building structures. No official statistics or previous studies about number, location, size and socioeconomic aspects of these settlements are available. Two slum sites from Amman and Aqaba were decided to be included in the study. Amman is the capital of Jordan with 2 473 400 people (38% of Jordan’s population), and Aqaba is the largest city on the Gulf of Aqaba and Jordan’s only coastal city and seaport with a population of 115 840.

OBJECTIVES

The purpose of this study is to assess the SDH as perceived by residents of selected slum areas in Amman and Aqaba. The specific objectives are to

- (i) highlight the most common challenges related to SDH in these areas as perceived by the slum residents and
- (ii) suggest policy directions and interventions to meet these challenges.

CONCEPTUAL FRAMEWORK

The WHO model (Figure 1), which was developed by the Commission on Social Determinants of Health (Solar and Irwin, 2010), will be used as a conceptual framework for this study. It explains how social inequalities in health are the results of interactions between different levels of causal conditions, from the individual to communities to the level of national health policies. According to this framework, this study will cover the three levels of SDH for slum areas as follows:

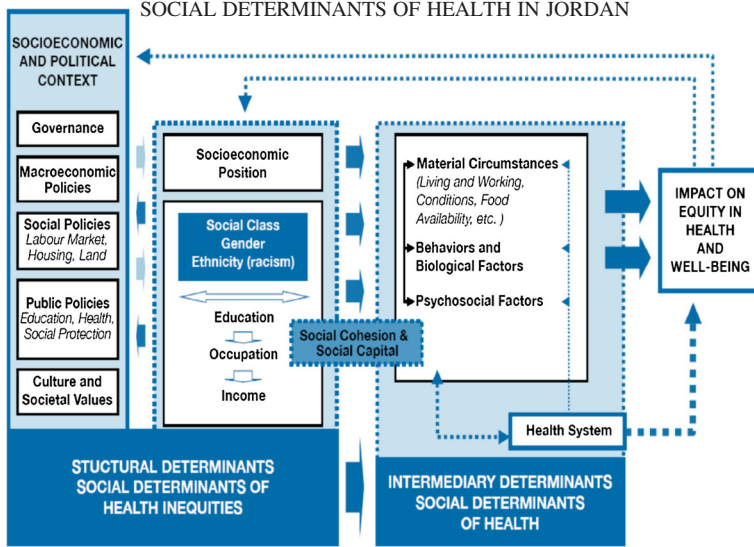


Figure 1. WHO Model for Social Determinants of Health. Source: Solar and Irwin (2010). A conceptual framework for action on the social determinants of health. Social Determinants of Health Discussion Paper 2 (Policy and Practice). WHO, Geneva 2010.

The national policy level (socioeconomic and political context): macroeconomic policies; social policies related to housing and land; public policies on education, health and social protection; and culture and societal values.

The structural determinants of SDH: education, income, occupation, gender and social class.

The intermediary determinants of SDH: living and work conditions, sanitation, water, food availability, behavioral and lifestyle and health services.

METHODOLOGY

Study design

Although the study employed both quantitative and qualitative methods of data collection, it depends mainly on focus group discussions for gaining insight into participants’ perception and experience related to the phenomenon under study.

Inclusion criteria

For the purpose of this study, the UN–HABITAT (2007) definition of a slum household was adopted. Accordingly, a slum household to be included in the study is defined as a group of individuals living under the same roof in an urban area who lack one or more of the following:

- (i) durable housing of a permanent nature that protects against extreme climate conditions,

- (ii) sufficient living space that means not more than three people sharing the same room,
- (iii) easy access to safe water in sufficient amounts at an affordable price,
- (iv) access to adequate sanitation in the form of a private or public toilet and
- (v) security of tenure that prevents forced evictions.

Study sites

After several field visits to the poor residential areas in Amman and Aqaba, two settlements were located (one for each city). Both sites were meeting the five conditions of the UN–HABITAT inclusion criteria mentioned earlier.

In Amman, the selected site is located in the Adan area in the eastern poor and less privileged part of the capital. The land is of private ownership with an area of about 10 000 m², which used to be a stone pit; it is surrounded by crowded urban houses and busy streets. About 35 households are living in this settlement.

In Aqaba, the slums settlement is occupying about 20 000 m² of rocky land owned by Aqaba Special Economic Zone Authority. It is situated east of Aqaba near the main water tank (Khazan) overlooking the Gulf of Aqaba on the edge of the Red Sea Rocky Mountains. The slums are near the old city of Aqaba (Alshalaleh) and surrounded from two sides by poor residential areas. About 50 households are living in this site.

Data collection

- Disk review was conducted to collect data related to the national policy level (socioeconomic and political context). The purpose of this review is to understand the interaction of socioeconomic and political context with other structural determinants of health for the slum residents.
- Socioeconomic data collection sheet for each household was prepared to collect data related to the structural variables of SDH (gender, age, marital status, education, income and occupation). The data were collected for all households in the two study locations by a trained research assistant through personal interview with family heads.
- Assessment of the structural and intermediary determinants of health as perceived by the slum residents was performed through conducting focus group meetings with representatives of the households in the two locations. The two focus group meetings (one for each location) were conducted by the principal researcher according a preset agenda that covers the main themes indicated in the conceptual framework. The focus group discussions were documented and recorded by a trained research assistant. Number of participants in each focus group was 12 persons purposely selected from the socioeconomic data sheets collected for each household. Members in each focus group were selected to represent gender, age, employment, education and social status of the people living in each slum settlement.

Ethical issues

Verbal and written consents were taken from participants to collect data, conduct the focus group meetings and perform the audio recording. Their rights to withdraw anytime and not to be recorded were explained for them. They were assured that all

documents and recordings related to this study will be used for scientific research only without revealing their names. An approval from the Research Ethics Committee at Ministry of Health was obtained at the beginning of the research project.

RESULTS

Socioeconomic characteristics of the slum residents

Table 1 summarizes the main socioeconomic characteristics of the households living in the two study locations as reported by heads of households. The number

Table 1. Demographic, social and economic characteristics of household members living in the Amman and Aqaba slum areas

Variables	Amman (N= 181)		Aqaba (N= 265)	
	N	%	N	%
Gender				
Male	91	50.2	146	55.1
Female	90	49.8	119	44.9
Total	181	100	265	100
Age (years)				
<18	89	49.2	92	34.8
18–32	45	24.9	105	39.7
33–47	30	16.5	39	14.8
48–62	8	4.4	22	8.00
>63	9	5.0	7	2.7
Total	181	100	265	100
Education				
Illiterate	14	10.3	37	16.5
Less than secondary school	94	69.1	137	61.2
Secondary school	17	12.5	40	17.9
Community college	6	4.4	4	1.8
University	5	3.7	6	2.6
Total	136	100	224	100
Monthly income per household (JD)				
<100	13	38.2	18	37.5
100–200	11	32.4	10	20.8
201–300	6	17.6	10	20.8
301–400	4	11.8	9	18.8
>400	0	0.0	1	2.1
Total	34	100	48	100
Employment (18–60 years of age):				
Employed	8	10	35	21.9
Self-employed	28	35	26	16.2
Retired	2	2.5	3	1.9
Unemployed	42	52.5	96	60.0
Total	80	100	160	100

of households living in the Amman slums is 34 with 181 residents and an average 5.3 people per family, whereas the corresponding figures for the Aqaba slums are 48, 265 and 5.5, respectively. In Amman, about 50% of the slum residents are children below 18 years of age, whereas in Aqaba, this percentage is about 35% only.

The illiteracy rate among people 18 years of age or more is very high in both locations: 15.2% and 21.4% for Amman and Aqaba, respectively. Regarding level of education, most of the adult residents (more than 60%) in both locations have less than secondary school level; the majority did not complete the 10th class. Few slum residents (less than 6%) in both locations have had the chance to obtain a university degree.

The household income per month is very low in the two study locations as almost all households earn less than 400 Jordanian Dinars (JDs) monthly. More than 60% of the households earn less than 200 JDs monthly. The unemployment rate is very high in the two locations (more than 50%).

Perceptions of the slum residents about the structural and intermediary determinants of SDH

Economic situation. The participants in both slum areas in Amman and Aqaba stated that they all suffer from low-income and low-wage earning, poverty, unemployment and high dependency ratios as evidenced in the following statements.

“I am an old sick man; I live here with my wife and my daughter for more than ten years. I receives 90 JDs monthly from the Social Development Fund. I can’t rent even a room with this money!”

“I am unemployed young man living with my widowed mother and sister; my mother receives 80 JDs monthly from the Social Development Fund. I feel guilty as I should support her, I am depressed!”

Education. The residents of the slum areas in Amman and Aqaba reported that they have high rates of illiteracy especially among mothers; high percentage of school dropouts before the 10th class, especially girls; and their children have difficulties in accessing schools.

“Majority of fathers and mothers living here are illiterate or has low education level, this is one of the main reasons for living in these petty and lousy shelters....!”

“The dream of our children here is to go to school and complete their university studies, but many of them leave school early because of poverty and difficulties of paying the expenses of school..... ”

Occupation. As reported by the focus group participants in the two study locations, a significant number of households raise sheep to secure basic food requirements (milk, yogurt, cheese, etc.). The few who are employed work in unskilled jobs as drivers, night guards, garbage collectors and handlers in Aqaba port.

“I am a jobless young manand this is the same for more than 50% of young men living here, some of them are college graduates... Most of those who work in the Aqaba Authority are employed according to nepotism or favoritism (Wasta)we are poor people, nobody cares about us we do not have ‘Wasta!’”

Gender. The following statements provide evidence of gender inequity toward women in the study sites:

“My daughter and my son finished high school last year, although my daughter had 90% average score while my son had 70%, I sent my son to university and kept my daughter at home, simply because I can’t pay the expenses of both the girl will marry soon and her husband will take care of her.”

A woman from the Aqaba slums said that women here are oppressed and maltreated. She continued:

“If a woman told her family that her husband is oppressing and tyrannizing her, they do not help or support her, they instead support her brutal husband! The woman here doesn’t have any rights, her husband can marry another wife anytime, and if she works he takes her salary”

Ethnicity and social exclusion. Almost all of the families living in the two study locations are of well-known Jordanians clans and tribes, and they are not living in the slum areas for ethical reasons. The residents feel sometimes social exclusion from urban people living in neighborhoods. Nevertheless, they feel that the main problem is that officials do not deal with them respectfully; they claim that they are victims of “official exclusion.”

An old man from the Amman slums said:

“It is not only the bad environment and living among rodents, snakes, and waste dumps, but also the society which declassifies us as a second class, shepherds and nomads, who threaten their civilized society, and prefer not mingling with us.”

A lady from the Aqaba slums reported:

“Our real sufferings are not from our neighbors, official authorities are the main reason for our suffering....instead of helping us or solving our problems, they want to demolish our homes which have no furniture but poultry and rags.”

Material circumstances. The following statements of the participants portray the harsh and painful environment of the two slum settlements.

“Water is one of our biggest problems; near the train station there is a faucet with contaminated water which is used for crops irrigation. We fill plastic gallons of water from it, transfer it by animals for cooking, drinking, cleaning and washing; we do our best to use it wisely.”

“It becomes very cold in winter especially at night, but we can make fire and manage; but in summer we suffer from high temperatures.”

A lady from the Aqaba slums responded when asked about the availability of toilets:

“Women have to wait most of the time until it gets dark in order to use the toilets in the open. We drink only little water to avoid using toilets in the open during day time.”

Social–environmental or psychosocial circumstances. The participants reported that they suffer from stressful living circumstances, lack of social support, social inequalities, psychosocial stressors and social exclusion and neglect. They declared that social solidarity and community spirit are the main drivers for the absence of violence threats and drug addiction among slum residents in Amman and Aqaba.

The following statements reflect the psychosocial circumstances that are prevailing in the two slum settlements:

A woman from the Aqaba slums reported:

“We know each other very well, many households are relatives and from one tribe, we support each other in all occasions, strangers are not welcome here. Therefore; we do not have violence, crime or substance abuse.”

A young man from the Amman slums said:

“The very bad living conditions, poverty and loss of hope make many people suffer from severe depression and psychiatric disorders.”

Diet and nutrition issues. The participants reported that because of poverty and unemployment, almost all households suffer from poor diet and low protein intake.

“Although some of us work as shepherds we only eat meat in holy occasions, our main food is squash and tomatoes dip, lentils with rice, or lentils soup, a lucky family eat chicken once every three months...”

“We don’t have anything, our most important meal is tomatoes, and we only see meat in feast (Eid al- Adha).”

The healthcare system. As reported by the residents in the household interviews and expressed by the participants in the focus groups, the slum dwellers have many health problems as kidney diseases, respiratory diseases (asthma and respiratory tract infections), mental and psychological disorders, diabetes, high blood pressure, arthritis, osteoporosis and urinary tract infections. Some of them also have physical disabilities and cannot support themselves. They reported that they have had many cases of snake and scorpion bites.

Most of the slum residents at the Amman site claim that they do not have health insurance. At Aqaba, although most slum residents are covered by the government health insurance plan for vulnerable and poor people, they claim that they are not given equal opportunities as other patients. All participants in the two slum locations reported that local health authorities have never visited their premises or provided them with any health services in the field.

The following statements reflect some of the health issues and challenges prevailing in the two slum settlements:

“Whenever I take my children to the government hospital, irrespective of the seriousness of the diseases, they give them almost the same medication (Revanin or Aspirin). The forty JDs that I receive from Social Development Fund can only buy four sets of medication for my diabetic son.”

“We suffer from many diseases like blood pressure, diabetes, and kidney diseases which are expensive to examine and treat without health insurance especially after increasing the prices of chick- ups and medications in clinics.”

“I have been living here for more than twenty years and I don’t remember that any health officials have even visit us or investigate our miserable health and sanitary environment.”

DISCUSSION

The average family size for both locations is almost the same as the national figure that was 5.4 for the year 2011. The illiteracy rates are significantly higher than the illiteracy national rate (6.7%) (Jordan Department of Statistics (DOS), 2011). This is not unusual, as slum residents all over the world are suffering from high percentages of illiteracy and low education levels due to poverty, unemployment, social exclusion and poor access to schools (Stephens, 1995; UN–HABITAT, 2007; WHO, 2008).

Almost all households in the two sites live near the national poverty line of 325 JD monthly per household. Poverty incidence in Jordan is 14.4%, and the majority of poor households (80.35%) are located in urban areas (DOS and World Bank, 2010; Ministry of Planning and International Cooperation (MOPIC), 2013).

The unemployment rate in the two sites is more than three times of the national corresponding figure (12.5%) (DOS and World Bank, 2010). Higher unemployment in Jordan can be attributed to a battery of causes including inability of the economy to provide job opportunities for all new entrants, mismatching between the education outputs and job market requirements, and the shrinking number of available or newly created vacancies in the public sector (MOPIC, 2010; DOS and World Bank, 2010).

UN–HABITAT (2003/1, 2007) reports that the inhabitants of squatter slums all over the world are suffering from poverty, unemployment, ill health and bad living conditions. A study about Delhi slum settlements describes that the worst living conditions tend to be found in squatter settlements: 31% of inhabitants are employed, 85% earn less than 2000 rupees (\$US44) per month and 42% are illiterate (Dupont, 2002).

Because a significant number of households in the Amman and Aqaba slums raise sheep to earn income, it is worth mentioning that until recently, urban livestock was often regarded worldwide as problematic, backward and a sign of poverty. However, livestock keeping now seems to be recognized for the positive role that it can play in urban living conditions across the world (FAO, 2001; Guendel, 2002).

Gender issues in the two study sites do not vary significantly from the general prevailing situation in Jordan. The Gender Inequality Index value for Jordan in 2011 is 0.456 placing it at 83 out of 146 countries (OECD Development Centre, 2012).

One of the families headed by a woman in the Aqaba slums has to bear more sufferings because the children of the mother are denied citizenship because their dead father is not Jordanian. According to Jordan law, women cannot confer citizenship to children born to a non-Jordanian father; this impact on the rights of the children to access free education and social health insurance, as this is only provided to Jordanian citizens (OECD Development Centre, 2012).

Muslim men in Jordan have the legal right to practice polygamy, but before marrying a second, third or fourth time, they must prove their financial capability to support another wife. About 4.6% of women questioned for the 2007 Population and Family Health Survey reported that they were in a polygamous marriage (MOPIC, 2010).

Gender inequity issues are not confined to slum areas; similar issues are reported, especially in poor and low-income communities in Jordan. A study about integrating health and empowerment of women in some poor communities in the south region of Jordan found that more than 30% of the women surveyed said they were psychologically abused, whereas 20% reported being physically abused and subjected to some form of economic and social abuse, such as being prevented from using their own money (Kawwa and Sato, 2011). Another study about gender issues in five rural locations found that more than three-quarters of youth reported the existence of discrimination in favor of men (DOS, 2009).

Many studies about slums all over the world found that slums are marginalized and socially excluded communities. Because slums are the clear manifestation of urban poverty, it was reported that there is a causal relation between poverty and social inclusion (Stephens, 1995; Dupont, 2002; Begum and Moinuddin, 2010).

Slum studies indicate that the poor do not cause slums; government neglect or indifference is one of the main reasons that cause slums, which are the only options for the poor. Moreover, policies that fix unrealistically high development standards and inappropriately costly building codes also create slums (Stephens, 1995; Dupont, 2002; Suha and Haque, 2013).

It is reported that in dense urban conditions, it is often difficult for slum dwellers to find space to build latrines. Many have to defecate in the open space or share latrines with other families, which tend to offer no privacy, safety or hygiene (Suha and Haque, 2013).

It is very unfavorable when local authorities view slums only as illegal. Many cases around the world show that the reaction of authorities to demolish slums clearly proved to fail as a solution; people would just re-build their houses or move to another space within the city. Progressively, there has been a shift toward slum upgrading or housing slum residents in new location (UNFPA, 2007; Kjellstrom and Mercado, 2008).

Undernutrition remains a major problem in most developing countries, especially in underserved areas such as urban slums. Poor and unbalanced diet has adverse effects on health and nutrition, especially for children. Protein deficiency hinders physical growth of children and their brain development (WHO, 2008).

The health situation in the two study sites in Amman and Aqaba is adversely affected by the fact that local officials are unwilling to provide essential services, health-related infrastructure or recognition to these informal settlements. Pervasive urban health inequalities have been uncovered worldwide and are frequently

reported (UN-HABITAT, 2003/2). Riley *et al.* (2007) reported that chronic noncommunicable and communicable diseases such as hypertension, diabetes, injuries, tuberculosis, rheumatic heart disease and HIV infection are recognized to exist among slum residents.

According to WHO, the location where people live affects their health and life outcomes. This means that the health outcomes (physical, social and mental) of slum habitants are adversely affected by their bad living situation (WHO, 2008).

CONCLUSION AND RECOMMENDATIONS

The existing study revealed that residents of slum areas in Amman and Aqaba are more likely to experience disease, injury and premature death due to poverty, unemployment, social and official exclusion, poor-quality housing, overcrowding, unhygienic surroundings, lack of infrastructure and minimal access to refuse collection, healthcare or other essential services.

Local authorities are asked to change their strategy in dealing with informal slum areas from exclusion to inclusion. The following recommendations are grouped into three main clusters: social protection, social inclusion and empowerment:

Social protection

- (i) Developing strategies to house slum residents and prevent the formation of new slums.
- (ii) Giving slum residents employment priority.
- Expanding the social protection to target slum residents according to well-defined priority criteria that cover at least portable drinking water, temporary housing units (i.e., caravans) with basic sanitation facilities, health services (mobile clinics, health surveillance and health promotion), garbage collectors, electricity generator and veterinary services.

Social inclusion

- (i) Encouraging preschool programs by opening kindergartens in slum areas or near these areas.
- (ii) Rules and regulations should be reviewed to give the right for women to confer citizenship to children born to a non-Jordanian father.
- (iii) Providing all slum residents with health insurance.
- (iv) The Healthy City program, which is supported by WHO and implemented in some cities in Jordan including Amman and Aqaba, should give priority to slum areas and develop specific social, economic and health interventions to reduce inequalities in these areas.

Empowerment

- (i) Supporting and enhancing the programs designed to habilitate and train productive households in slum areas.

- (ii) Adopting a community-based model to eliminate illiteracy in slum residential areas in collaboration with local authorities.
- (iii) Development of community-based women empowerment programs for slum areas.
- (iv) Designating specific zone in urban areas for livestock raising and providing them with the appropriate infrastructure and housing units.

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