A Qualitative Assessment of the Iraqi Primary Healthcare System

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Abstract

With the limited availability of empirical and documented knowledge about the Iraqi primary healthcare (PHC) system, this study aimed to identify the main problems facing the Iraqi PHC system and the priorities for change. A qualitative study based on a self-administered questionnaire survey involving 46 primary care managers, public health professionals and academics was conducted in Erbil, Iraq. The questionnaire addressed participants' views on positive aspects, problems, priorities and barriers to change of the PHC system through seven open questions. The qualitative data analysis comprised thematic analysis. The survey revealed significant impediments to delivering PHC services, including problems in organization and management of the system, shortage of and poor quality of medications, and inadequate or uneven distribution of manpower and expertise. Priorities for improving the primary healthcare system included reorganization of the services and leadership involving adoption of family practice and regulation of public–private practice, placing emphasis on prevention and health education, and provision of continuing professional training and development. The enormous problems facing the system might signal the need for important and comprehensive improvements based on more in-depth assessment.

Background

The events of the last few decades have significantly affected the healthcare system in Iraq. The nation and its healthcare system were devastated by the effects of different wars, internal conflicts, international sanctions and political instability (Ali and Shah 2000). These difficult years resulted in a substantial fall in major health indices and left a crippled health system struggling to meet the population's needs (Alwan 2008; WHO 2006). Unfortunately, the system of primary healthcare (PHC) in Iraq did not escape these devastating effects and continues to suffer from problems common throughout the healthcare system (Ali and Shah 2000; Alwan 2004).

There is consensus on the poor functioning of the Iraqi PHC system, including in the Kurdistan region, and the desperate need for reorganizing and restructuring PHC services (Alwan 2004, 2008). However, there is only limited empirical and documented knowledge about the system. Therefore, comprehensive assessment is essential to better understand the problems, needs and obstacles to development of this important sector of health. A first step is to assess the perspectives of policy makers, PHC managers and public health academics about the positive aspects of the system in Erbil Governorate, problems facing the system and priorities for its improvement. To elicit the views of these individuals, a questionnaire survey was conducted; the results are reported in this paper.

Methods

This was a qualitative study based on a self-administered questionnaire survey of policy makers, PHC managers and academic public health specialists in Erbil Governorate, Kurdistan region.

A sample of key informants consisting of health policy makers, PHC managers and academic public health specialists in Erbil was selected, representing the College of Medicine, College of Nursing, Directorate of Health and eight main PHC centres in Erbil Governorate. The PHC centres were selected through a stratified random sampling technique. At the first stage, the centres were stratified into three geographical strata. At the second stage, a judgemental sample of centres was selected from each stratum, based on the number of centres and population size in these areas. Thus, three PHC centres were selected from Erbil city centre, three from the district and sub-district centres close to Erbil city (60 km) and two from areas remote from Erbil city (over 60 km). The eight main centres selected from the 84 centres in Erbil Governorate represented three out of eight districts. In each centre, the manager and the administrative director were invited to participate in the survey. A purposive sample of key informants from health policy makers at the Erbil Directorate of Health and public health academics at the College of Medicine and College of Nursing was selected. In total, 60 participants were invited to participate in the study, which was carried out between June and November 2010.

Since this study involved only PHC centres from Erbil Governorate, its findings might not be generalizable to other parts of Iraq or the Iraqi Kurdistan region. However, the general situation of the PHC system in the other parts of Iraq could be largely similar.

A questionnaire was developed through a literature review of earlier healthcare assessments conducted in countries of similar contexts as well as expert opinion (Atun et al. 2006; Ehiri et al. 2005; Kahveci and Meads 2008; Nasiripour et al. 2009). The questionnaire was originally developed in English and translated to Kurdish, the primary language in the region. The translation was validated by an independent translator with a bachelor's degree in English language, who translated the Kurdish version back to English to ensure accuracy. The questionnaire was pilot-tested for the two language versions and subjected to two cycles of modifications, based on iterative feedback from nine respondents. The questionnaire was administered to participants in their preferred language. The English version is shown in Appendix 1.

The questionnaire included seven closed items on age, gender, educational background, profession, place of work, work experience within the PHC system and whether the participant held a managerial position. It also addressed, through seven open items, the participant's view on the best- and worst-functioning services, positive aspects and problems, priorities for the system and barriers to change, and the type of training needs for PHC providers. Open items were used to allow participants to better express their views.

The qualitative data analysis comprised thematic analysis of open-ended questions, using common coding techniques (Boyatzis 1998). The analysis started with a familiarization process with the data, where two investigators independently read and re-read the answers on each question many times to identify or label categories. These investigators then discussed and compared the initial codes and reconciled the differences. Categories that emerged from the data after the initial stage of coding were combined under wider themes. Finally, the themes were revised and refined, ensuring that they reflected respondents' answers. For example, the initial coding of the 126 answers about problems facing the PHC system yielded 58 categories. These categories were later aggregated into 14 themes. Each open item was analyzed and reported independently, except for the item of education and training needs, which was analyzed and reported with the item of priority needs. More than one response was coded for each subject when necessary. Duplicate answers were coded only once. Illegible, blank and off-subject answers received from five respondents on one of the open questions, were coded as missing data.

The Research Ethics Committee of Hawler Medical University approved the study. An informed consent was obtained from each participant after the purpose of the study had been explained and confidentiality and participant anonymity assured. Great care has been taken to preserve the anonymity of survey participants and their institutions through coding them in the transcripts and removing their names from the quotations in the results.

Results

Of the 60 PHC managers and public health specialists invited to participate in the survey, 46 individuals (76.7%) completed the questionnaire. Respondents' mean age ± SD was 41.9 ± 9.3 years, and their average duration of employment in the PHC sector was 9.8 ± 8.0 years. Females constituted 45.7% of respondents. The majority of respondents were physicians (67.4%), while 4.3% were dentists and 28.2% were skilled healthcare workers. In terms of workplace, 32.6% worked at the Directorate of Health, 34.8% at PHC centres and 32.6% at the university. Around 41% held management positions. Basic data collected about non-respondents showed no important differences between them and respondents in terms of age, gender and professional characteristics.

The majority of respondents (71.1%) recognized immunization as the best-functioning service in the PHC centres, followed by antenatal care services (25.4%). Health education and treatment of diseases were recognized as the worst-functioning services (47.8% and 37.0%, respectively), followed by nutrition and growth monitoring.

Identifying immunization as the best-functioning service was mainly due to availability of proper plans and programmes for immunization (40%) and availability of trained and experienced staff (31.4%). Recognizing antenatal care as one of the best-functioning services was mainly due to its having a special unit with trained staff (57.1%) and its emphasis on prevention (21.4%). Identifying health education as the worst-functioning service was related to its lack of special programmes or plans (72.7%) and shortage of trained or experienced staff in this field (27.3%). Shortage of and poor quality of medications (64.7%) and irrational use of drugs (29.4%) were the main reasons for recognizing treatment of disease as one of the worst-functioning services. Reasons for identifying specific PHC services as best- or worst-functioning are shown in Table 1.

Participants recognized a number of positive aspects in the current PHC system. The most prominent theme identified was having a number of properly working programmes like immunization and antenatal care (43.5%). This was best described by one of the respondents as follows:

> At least a number of useful programs like immunization and antenatal care are in place in PHC centres, and poor people can somehow benefit from them. (Academic)

Other positive aspects of the system included provision of services to most people, especially for simple cases (30.4%), the nearly free-of-charge services (19.6%) and easy accessibility (10.9%). The

Table 1. Reasons for identifying specific primary healthcare services as best- or worst-functioning

Reason		Positive response[a]	
		No.	(%)
Best-functioning services			
	Immunization (*n* = 35)		
	Availability of proper plans and programmes	14	(40.0)
	Availability of trained, experienced and committed staff	11	(31.4)
	Vaccine availability	9	(25.7)
	Emphasis on prevention	8	(22.9)
	Presence of follow-up and monitoring	4	(11.4)
	Increasing coverage and approaching the targets	3	(8.6)
	The high level of awareness of the communities in this aspect	3	(8.6)
	Support of international organizations to the programme	2	(5.7)
	Antenatal care (*n* = 14)		
	Presence of special unit and trained staff	8	(57.1)
	Emphasis on prevention	3	(21.4)
	Presence of follow-up and monitoring	2	(14.3)
Worst-functioning services			
	Health education (*n* = 22)		
	Lack of special programme or plan	16	(72.7)
	Lack or shortage of trained or experienced staff	6	(27.3)
	No emphasis on health education	6	(27.3)
	Overload of staff by patients (short of time)	2	(9.1)
	Treatment of disease (*n* = 17)		
	Shortage of and bad-quality medications	11	(64.7)
	Irrational use of drugs	5	(29.4)
	Lack of provision of enough care to patient due to the private interest of staff	4	(23.5)
	Lack of necessary investigations	3	(17.6)
	Overload of doctors by patients (short of time)	2	(11.8)
	Poor support from DoH and MoH	2	(11.8)
	Lack of experienced staff and specialists	1	(5.9)

DoH = Directorate of Health; MoH = Ministry of Health.
[a]Multiple responses are considered.

complete list of positive aspects that respondents identified is shown in Table 2. Comments about these aspects of the system included:

Table 2. Positive aspects in the current primary healthcare system as perceived by respondents

Positive aspects		Response[a]	
		No.	(%)
1	Availability of properly working programmes (e.g., immunization and antenatal care)	20	(43.5)
2	Provision of services to majority of people, especially simple cases, reducing load on hospitals	14	(30.4)
3	Low charge/convenient to poor people	9	(19.6)
4	Easy accessibility	5	(10.9)
5	Support from Directorate of Health and presence of real intentions to improve the primary health-care services	2	(4.3)
6	Availability of staff and their hard-working character	1	(2.2)

[a]Multiple responses are considered.

> PHC centres can deal conveniently with simple cases, which constitute more than 80% of visitors to PHC centres. (PHC manager)

> The system helps people to have the basic primary care services easily. (Academic)

> Patients can get advice and treatment for nearly free [of] charge. (PHC manager)

> PHC services reduce [the] load on general hospitals to some extent with somewhat convenient management of patients. (PHC Manager)

Participants recognized different problems in the current PHC system, and organization and management were emphasized most frequently (56.5%). Comments related to this problem include:

> The treatment options are limited, leading to excessive referral to general hospitals. (Academic)

> The working hours are restricted to the morning time only. (PHC Manager)

> The low cost of services leads to overuse of services and unnecessary visits. (PHC manager)

> The same staff working at PHC centres in the morning are also working in private clinics in the evening, so they try not to be serious in the morning. (PHC manager)

Other common problems reported by respondents included a shortage of and poor quality of medications and supplies (39.1%), and inadequate or uneven distribution of human workforce and expertise, including rapid turnover of skilled staff (34.8%). Comments related to these two aspects included:

> Lack of medications sometimes makes patients withdraw from using PHC centres. (Policy maker)

> [There is] unavailability or severe shortage of most essential drugs, while the available drugs are of low quality or non-functioning. (PHC manager)

There is lack of qualified and skilled staff in many units of many PHC centres, and there is the problem of rapid turnover of physicians and skilled staff from PHC centres. (Policy maker)

The complete list of the problems, and additional examples of participants' comments about these problems, are shown in Tables 3 and 4, respectively.

Table 3. Problems facing the current primary healthcare system as perceived by respondents

Problems		Response[a]	
		No.	(%)
1	Problems with organization and management of the system, including ineffective referral system	26	(56.5)
2	Shortage of or bad quality of medications and supplies	18	(39.1)
3	Inadequate or uneven distribution of manpower and expertise and rapid turnover of skilled staff	16	(34.8)
4	Inadequate emphasis on prevention	14	(30.4)
5	Lack of diagnostic and therapeutic equipment	12	(26.1)
6	Lack of continuing professional training and development	8	(17.4)
7	Problems with staff responsibility and commitment, low motivation/private interest	9	(19.6)
8	Overcrowding	7	(15.2)
9	Inadequate wages and/or financial support	5	(10.9)
10	Low health awareness of population	4	(8.7)
11	Irrational use of drugs	3	(6.5)
12	Poor patient–provider relationship	2	(4.3)
13	Low cost of services	1	(2.2)
14	Shortage in the number of primary healthcare centres	1	(2.2)

[a]Multiple responses are considered.

Table 4. Examples of respondents' comments about problems facing the current primary healthcare system

The referral system to secondary care is weak or inefficient with approximately zero feedback. (Policy maker)
The supervision and monitoring from the directorate and Ministry of Health is poor. (Academic)
PHC system lacks an accurate system of statistics for collecting information. (Policy maker)
The same physician does not provide the quality of care to patients in PHC centres that he/she provides in the private clinic. (Policy maker)
PHC providers work according to their private clinics interests, with no disciplines or regulations to control this. (PHC manager)
There are differences between physicians and other staff of PHC centres in many aspects, especially the working time and risk incentives. (PHC manager)
The system does not differentiate between committed and hardly working physicians and staff and the careless ones. (Academic)
The behaviour and mentality of decision makers and university teaching staff are not with preventive health, but they always think to apply curative methods and are concerned more with the secondary and tertiary care. (Academic)

PHC = primary healthcare.

Respondents recognized a number of priorities for improving the PHC system, such as reorganizing the services and leadership, including adoption of family practice and clear separation of public and private practice (73.9%), a need for more emphasis on prevention and health education (52.2%), provision of continuing professional training and development (41.3%) and provision of adequate medications, materials and technology (34.8%). The complete list of priorities for improving the PHC system, and examples of participants' comments about these priorities, are shown in Table 5 and 6, respectively.

Table 5. Priorities for improving the primary healthcare system as identified by the respondents

Priority areas		Response[a]	
		No.	(%)
1	Reorganizing services and leadership, including adoption of family practice and separation of public and private practice	34	(73.9)
2	Need for more emphasis on prevention and health education	24	(52.2)
3	Provision of continuing professional training and development	19	(41.3)
4	Provision of adequate medications, materials and technology	16	(34.8)
5	Need for experienced and knowledgeable staff, including increased number of physicians trained in family medicine	12	(26.1)
6	Need for more emphasis on monitoring and evaluation and adopting disciplinary actions	12	(26.1)
7	Provision of support to staff (incentives, financial)	7	(15.2)
8	Improving financial allocation and support	5	(10.9)
9	Enhancing patients rights, ethics, communication	4	(8.7)
10	Strengthen the role of research (academics, policy makers)	3	(6.5)
11	Enhancing computer technology, reporting, statistics	2	(4.3)
12	Need for more primary healthcare centres	1	(2.2)

[a]Multiple responses are considered.

Respondents also identified a number of barriers to improvements of the PHC system, including weakness of the current health system characterized by bureaucracy and lack of planning (41.3%), the population's poor awareness (26.1%), political interference and pressure (21.7%) and professional interests and rejection (17.4%).

Discussion

The presence of a number of preventive programmes that work well, such as immunization and antenatal care, provision of treatment services to most patients, and the related low charge and easy accessibility of PHC services have been recognized as the main positive aspects in the current PHC system. The two preventive programmes mentioned above, particularly immunization, have good financial, logistical and training support from international organizations such as the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) as part of their worldwide programmes, as well as by the Ministry of Health (WHO 2005). As a result, staff members involved in these programmes are better trained, receive better incentives and are better established in their positions. These factors, in addition to the fact that the services are almost free, lead to higher

use and eventually a more positive perception of the programmes. Studies from Afghanistan and Nigeria have also reported a generally higher satisfaction with maternal and child care services in PHC centres compared to other services (Hansen et al. 2008; Uzochukwu et al. 2004). Easy access and almost no charge make the system appropriate for the poor, and, because the services are available to most people, help decrease the load on hospitals and other health institutions. Easy accessibility of PHC services as a positive aspect was also reported by Khudhairi (2005), who revealed that around 30% of patients walk to PHC centres.

Table 6. Examples of respondents' comments about priorities for improving the primary healthcare system

There is a need for a good and scientific review of the general health system in the country. (PHC manager)
The PHC centres can be changed to family medicine centres gradually by changing two PHC centres to family practice each year. (Policy maker)
We need to develop guidelines of care to all clients and the common conditions. (Academic)
Legislation should be put in place to control employees' attendance so that services can be provided during the whole opening time of PHC centres and cover the days off as well. (Policy maker)
There is a need to activate the referral system with efficient feedback. (Policy maker)
Work should be done for inclusion of doctors and nurses in the continuing medical education system. (Academic)
We need to prevent the rapid turnover of the trained medical and the paramedical staff. (Policy maker)
Active and efficient directors should be appointed in PHC centres. (Policy maker)
There is a need to employ an efficient appraisal system and continuous monitoring of PHC services. (PHC manager)

PHC = primary healthcare.

In contrast, many negative themes or problems were reported about the current PHC system, including problems with organization and management, an ineffective referral system, and a shortage of and poor quality of medications and supplies. The main curative service, treatment of disease, and an important preventive programme, health education, were identified as the worst-functioning services. Poor disease treatment services can be attributed to shortage and poor quality of medications, as well as to irrational use of medications. A study from Afghanistan identified poor patient–provider interaction and non-availability of essential drugs as main impediments for disease treatment in PHC centres (Hansen et al. 2008). Poor health education is mainly attributed to complete lack of education activities and shortage of trained staff in this field. Poor access to and effectiveness of health education, in addition to shortage in educators, are common features of PHC systems in the region and in many developing countries (Al-Ahmadi and Roland 2005).

As the study specifically asked respondents about their perspectives on both the positive aspects and problems in the PHC system, it elicited some contradictory viewpoints about a number of topics. For example, a PHC manager stated that PHC centres reduce the load on hospitals, while an academic thought that there is excessive referral from PHC centres to the hospitals. As the study involved participants from different professions, with different roles and responsibilities in the PHC system and from different geographical areas, these types of contradictory viewpoints could be expected. In general, academics and PHC managers emphasized problems related to poor organization of services, while policy makers emphasized shortage of resources.

Different themes were reported as priorities for improving the PHC system, the main one being reorganization of services and leadership, with the related adoption of family practice and public–private sector segregation. In a study on assessing Serbia's PHC system, Nelson et al. (2003) similarly

recognized reorganization of services and leadership, in addition to ensuring adequate materials and technology and provision of continuing professional development as the main priorities for reform. On the other hand, the weakness of the current health system, lack of planning, low health awareness of the population and political interference were identified as main barriers to future improvement. Tawfik-Shukor and Khoshnaw (2010) also underlined the weakness of the health system in Iraqi Kurdistan and its failure to provide an affordable, basic level of primary care to its population. Unlike the study of Tawfik-Shukor and Khoshnaw (2010), affordability was not an issue in the current study, as it assessed only PHC services in the public sector, which are provided nearly free of charge. The concern of Tawfik-Shukor and Khoshnaw (2010) is related mainly to people who cannot find the services they need in the public sector and seek them from the private sector.

Problems in organization and management of the PHC system and the limited allocation of funds were also reported by the WHO (2006). In their profile of the Iraqi health system, they described it as hospital-based and capital-intensive, requiring imports on a large scale. The WHO also emphasized underinvestment in the PHC system since the 1980s. The problem of poorly trained personnel was also reported by Alwan (2004), who identified inadequate staff training as one of the main factors responsible for progressive deterioration of the Iraqi health system. Poor patient–provider relationships and shortage of medications were also reported by Khudairi (2005), who also emphasized poor patient education, poor instructions about treatment, and incompetent or improper clinical examination, in addition to a shortage of essential medical products. In Egypt, Gadallah et al. (2003) reported a high level of good patient–provider relationships and a high level of satisfaction with the quantity of prescribed drugs (Gadallah et al. 2003). This difference between Iraq and Egypt could be related to the study methodology and the definition of satisfaction, but it could also be related to Egypt's more stable health system.

The priorities of reorganization of services, provision of adequate medications and supplies, and improvement of financial allocations were also reported by other studies from Iraq (Alwan 2004; Khudhairi 2005; WHO 2006). A number of new priorities emerged from this study, including the need for public–private sector segregation, greater emphasis on preventive health services and health education, greater emphasis on monitoring and evaluation, and a need for an increased number of experienced and qualified staff, especially physicians trained in family medicine practice. Although respondents emphasized public–private sector segregation as a priority for improving the system, experience shows that a public–private sector mix or partnership has been an important component of health system reform in countries throughout the world. Clear and applicable legislation needs to be integral to such partnerships in order to prevent adverse effects or misuse of the public sector (Agarwal et al. 2007; Nishtar 2004).

While this study has reported different problems in the Iraqi PHC system and a number of priority needs for its improvement, with many quotations from respondents about these aspects, more in-depth studies need to explore many of these problems in order to better understand their causes and effects. Therefore, further research is essential to explore the identified problems through in-depth qualitative studies, and to determine their magnitudes through quantitative studies. Such research should also engage other important stakeholders who were not included in this study, particularly consumers and service providers at different levels.

Conclusions

The study identified a number of positive aspects of the current PHC system, including a number of properly functioning programs. However, it highlighted many problems facing the system, particularly those related to poor organization of health services and shortage of resources. Main priorities for improving the system included reorganization of services and leadership, with particular emphasis on family practice. Further research in greater depth is needed to better understand the problems facing the PHC system and to identify the needs of this important health system component.

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