

The Expected Impact of the Iraqi Health Insurance Program and the Challenges Facing its Implementation: Physicians' Perspective

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Abstract

Background: health insurance system covers medical expenses by a third party. The Iraqi Health Insurance Law (IHIL) has been approved in 2021. Most insured patients should pay a co-insurance of 25% for prescriptions, lab tests, X-rays, and medical dental services and pay 10% of the physician visit fees.

Aim of the study: The aims of study were to explore the physicians' insights toward the impact of the prospective implementation of the Iraqi Health Insurance Program (IHIP) on patients, healthcare providers (HCPs) and services, and to identify the potential challenges facing its implementation.

Method: This is a qualitative study based on semi-structured face-to-face interviews with specialist physicians from different disciplines (Internal medicine, family medicine, cardiology, orthopedic, oncology, gynecology, general surgery, pediatrics and dentistry). The interview guide included open-ended questions about the impact of the IHIP on patients and HCPs at three levels: quality of services, costs, and frequency of visits. Potential challenges were also discussed. Interviews were conducted in six provinces from April 19th to August 31, 2022. Thematic analysis was used to analyze the interview findings and generate themes and subthemes.

Results: The study recruited 26 physicians till the saturation point has been reached. Only sixteen of the participants were aware of the IHIP. Most participants believed that the program could enhance patient health and would increase the income of HCPs in the private sector. They also expected that patients would use private-sector services more frequently. Additionally, the implementation of the health insurance can improve the quality of healthcare services and reduce the financial burden regarding private sector fees. The potential challenges of the program implementation include mismanagement, provision of comprehensive medical services to insured people, overuse of the plan by the insured patients, convincing non-governmental employees to join the health insurance plan and potential delays in the reimbursement to HCPs.

Conclusions: The study indicated several main themes and subthemes of physicians' insight regarding the national health insurance. The IHIP has several potential advantages, but at the same time, it can face several technical challenges. Thus, the program should be well studied before being implemented, and it needs to be piloted at a small scale before national implementation. Electronic health system must be adopted to facilitate transferring data to health insurance authority. Hiring international experts to help managing the medical claims is pivotal to avoid delaying in the processing. Finally, the Health Insurance Authority (HIA) needs to raise the awareness of HCPs and people about the national health insurance plan.

Keywords: Health insurance plan, Health Insurance Authority, Healthcare providers, Service quality, Challenges, Perceptions, Qualitative study, Iraqi physicians.

Introduction:

Iraq is an upper middle-income country with a total GDP of 207.89 billion US dollars in 2021, with an annual growth of 2.8% and a gross domestic product (GDP) per capita of \$ 5,048.4(1). Iraq had a population of 40 million in 2020, and it is expected to rise to 51 million by 2030 (2). The life expectancy in

2020 was 70.75 years, which is lower than that in the neighboring countries(3). All health institutions in the public sector are owned by the Iraqi government and are subjected to the supervision of the Ministry of Health (MOH) (4). All healthcare providers (HCPs) in the public sector are government employees and the MOH organizes the work in the public health sector to ensure the provision of universal medical services (5). The healthcare system in Iraq faces a number of difficulties and challenges that have stood in the way of its development for more than three decades and

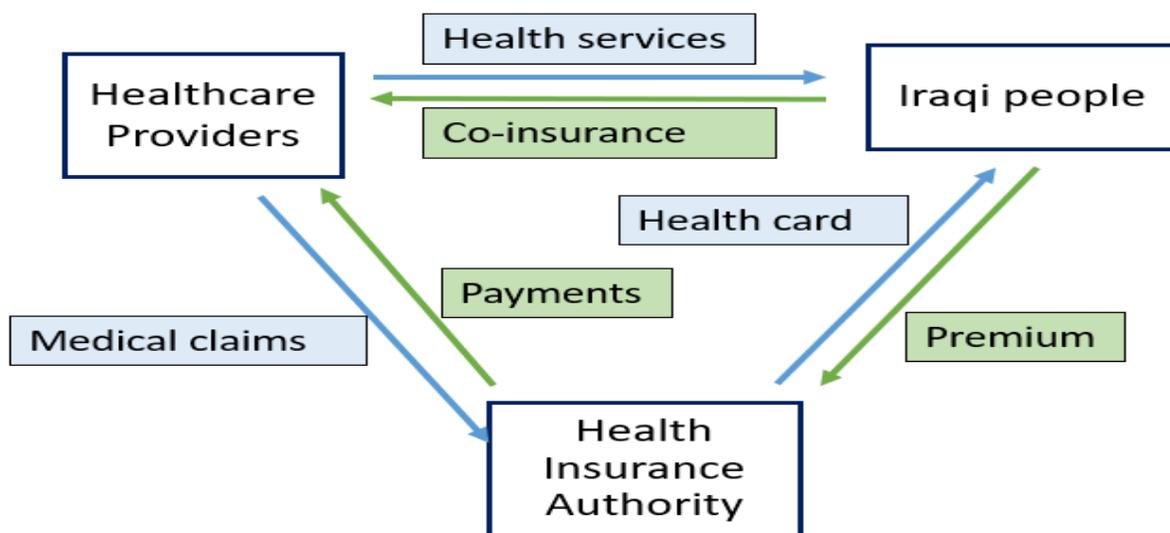
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have had an impact on the level of medical services provided to patients (6). The health sector faces many problems, such as an insufficient budget for the MOH, a lack of essential medicines, a large number of low-quality and fake medicines available in the private sector, and a pharmaceutical industry that has stopped growing (7).

In 2021, the Iraqi parliament approved the health insurance law. The Iraqi Health Insurance Program (IHIP) will include HCPs from the private and public health facilities. A registration will be mandatory for all governmental employees. The monthly premium will be 1% of the salaries of all government employees except for those with special ranks, who will pay 2.5% of their monthly income. As a co-insurance, the insured individuals must pay 25% of the prices of medicines, the laboratory, x-rays, and the dental services. In addition, co-insurance will be 10% of the cost of surgeries when performed in government hospitals and 25% of the cost of surgeries when performed in private hospitals (8). Monthly premium fees can cover family members, parents, and children

under 21 years of age who are not working or are still studying. Low-income people, people with disabilities, and people with terminal illnesses will get free coverage. The Iraqi MOH will continue to provide preventive services (public health) such as vaccinations and screening to people free of charge (8) (Figure 1). Since more than six million employees (with their families) will enroll in this national health insurance program, it probably may have a significant impact on insured people, HCPs and healthcare system (services). The study is the first in-depth study investigating the specialist physicians' perceptions toward the prospective national health insurance. The specialist physicians' recommendations can help health officials to evaluate the potential barriers facing the national health insurance program.

Hence, the objectives of this study were to 1) explore the physicians' perspectives on how the implementation of upcoming IHIP will affect patients, HCPs and services and 2) identify the potential challenges facing its implementation.



The process of Iraq Health Insurance Plan

Figure 1: The prospective Iraqi Health Insurance Program

Methods: This was a qualitative study, which relies on the participants' answers to open-ended questions. The researcher conducted semi-structured interviews with specialist physicians from different specialties who were working in the public and/or private healthcare settings. The interviews took place in person or over the phone, and were conducted from April to August 2022. Ten interviews (out of 26) were audio-recorded. The interview guide was organized to explore in-depth the physicians' perceptions about the impact of IHIP on insured individuals and HCPs at three levels:

Quality of medical services, costs, and frequency of patient visits

to HCPs. In addition, the possible obstacles to the execution of this program were also explored. Interview-based studies can provide in-depth information through follow-up questions which cannot be provided by survey-based studies. Additionally, the interviews were interactive between the researcher (interviewer) and participants (interviewees) to have daily practice details about the topic.

Setting: The researcher interviewed 21 physicians in-person: 10 physicians in hospitals, three physicians in the Health Department, and eight physicians in their medical clinics (in the private sector). Only five phone interviews were done. The interviews lasted between 20 and 45 minutes.

Inclusion criteria: The interviewees must be specialist physicians working in the Iraqi public and/or private sector.

Physicians' recruitment: There were two ways of sampling: Purposeful and snowballing. First, the researcher used a purposive strategy to target specialists who can give us valuable feedback about the topic of interest and work in both public and private sectors in order to identify the potential impact of the prospective IHIP on patients, healthcare providers and the healthcare system. In other words, specialists with adequate experience in both the private and public sectors in addition to having an interest in health insurance principles have been interviewed. The researcher also used a "snowball" technique, which involved asking interviewees if they knew any other specialists who would like to take part in the study. Specialist physicians were invited for interviews either by phone or in person. It is worth mentioning that many specialists were invited, but some declined because they were busy at work. Those who accepted the invitation received (through WhatsApp or Telegram) the interview guide and a brochure about the health insurance law before the interview. Others were given the interview guide and brochure in-person during the invitation visit. The researcher continued to conduct interviews with specialist physicians until reaching the saturation point. The interviews were audio-recorded after obtaining the verbal consent from the participants. To overcome any language barriers, the participants were free to answer the English questions in the guide in either Arabic or English.

Then, two bilingual researchers transcribed the interview verbatim into English.

Ethical approval: The research proposal was approved by the Central Scientific Committee at the University of Baghdad College of Pharmacy. Verbal consent was obtained before starting the interview. The audio recording was optional. To maintain the confidentiality of the participants, the interview did not require mentioning the participants names. The participants did not receive any rewards.

Thematic (Data) analysis: Unlike the statistical analyses of quantitative data, the thematic analysis relies on patients' quotes, codes and themes instead of numbers. Qualitative studies usually give in-depth information regarding the participants' perceptions about the study topic. The records of the interviews were transcribed, and the written transcript has been written by the authors to generate common themes. The researchers generated themes and subthemes from the physicians' responses. The research team (with an expert in qualitative studies) followed Braun and Clarke's (2006) six steps for thematic analysis. These steps include getting to know the comments, generating codes, searching for themes, assessing themes, defining and labeling themes, and finally writing the results (9)

Results

Twenty-six physicians (22 men and 4 women) from six governorates (Dhi-Qar, Baghdad, Basra, Karbala, Al-Muthanna, and Wasit) were interviewed with the majority being from Dhi-Qar province (19 out of 26) according to the accessibility and convenient travelling of the interviewer. Most (15/26) participants physicians had Board in clinical specialties (4-year clinical specialty program in different medical disciplines). Some (7/26) physicians had Higher Diploma which is one-year specialty program (Table 1).

Table 1: Demographics characteristics of the participating physicians

The code	Gender	Specialty	Degree	Workplace	Total years of experience
IM 1	Male	Consultant in internal medicine	Board	Nasiriyah General Hospital	20
IM 2	Male	Internal medicine	Higher Diploma	Al Haboubi Teaching Hospital/ Dhi-Qar	38
IM 3	Male	Internal Medicine	Board	Nasiriyah General Hospital	32
Surg 1	Male	General Surgery	Board	Nasiriyah General Hospital	31
Surg 2	Male	General Surgery	Board	Nasiriyah General Hospital	28
Surg 3	Male	General surgery	Board	Nasiriyah General Hospital	15
Gyno 1	Female	Gyn/Ob (Diploma) Ph.D. reproductive assisted technologies, and infertility	Higher Diploma	Nasiriyah General Hospital / Infertility sector	26
Gyno 2	Female	Gynecology/Obstetric	Board	Al-Muthanna Health Department	11
Gyno 3	Female	Gynecology/Obstetric	Board	Fatima Al-Zahra Hospital/ Wasit	18
FM 1	Male	Community medicine	Master	Public Health Department/ Dhi-Qar	23
FM 2	Male	Community medicine	Higher Diploma	Public Health Department/ Dhi-Qar	18
FM 3	Male	Community medicine	Higher Diploma	Public Health Department/ Dhi-Qar	26
Dent 1	Male	Director of the financial planning department	Dentist specializing in health management/ finance/ politics	Ministry of Health, Headquarter, Baghdad	26
Dent 2	Male	Dentist	Oral and Maxillofacial Practitioner	Al-Shamiyah Specialized Center / Dhi-Qar	7
Dent 3	Male	Dentist	Higher Diploma	Sumer Health Center, Dhi-Qar	10
Oncol	Male	Oncologist	Master clinical oncology	Warith International Cancer Institute, Karbala	12
Onco 2	Male	Oncologist	Board	Al-Sadr Teaching Hospital/Oncology Center, Basra	15
Cardio 1	Male	Cardiologist	Board	Nasiriyah Heart Center, Dhi-Qar	15
Cardio 2	Male	Internal medicine/second stage currently as cardiologist	Board	Nasiriyah Heart Center, Dhi-Qar	13
Cardio 3	Male	Cardiologist	Board student/ third stage	Medical City at Baghdad	14
Ortho 1	Male	Orthopedic	Higher Diploma	Nasiriyah General Hospital	24
Ortho 2	Male	Orthopedic	Board	Al-Hussein Teaching Hospital/ Dhi-Qar	17
Ortho 3	Male	Orthopedic	Board	Private clinic in Adhamiya, Baghdad	45
Ped 1	Male	Pediatrician	Board	Mohammed Al Mousawi for pediatric/ Dhi-Qar	11
Ped 2	Male	Pediatrician	Higher Diploma	Souq Al-Shuyoukh General Hospital/ Dhi-Qar	31
Ped 3	Female	Pediatrician	Board	Mohammed Al Mousawi for pediatric/ Dhi-Qar	19

The participating physicians believed this program has several potential benefits for patients, HCPs and the Iraqi health system, but its implementation may face several challenges. Table 2 shows the main themes and sub-themes that were generated from the specialists' interviews.

The specialist physicians are supporters of the recently approved law of the national health insurance: All the participating physicians agreed that IHIP is important and most of them were supporters of this plan. The physicians believed that IHIP would provide financial support to insured individuals and enhance access to healthcare settings/services.

"Undoubtedly, I support the law because it preserves the dignity of people when they are in emergency situations where they need medical services and may

not have money. Therefore, by applying it, they can visit health institution. In fact, it is a great gain if it goes in the right direction"(FM1).

The IHIP would improve quality of services: Twenty-two physicians indicated that the quality of medical services would improve if this program is implemented because HCPs in the public and private sectors will compete. Other physicians revealed that the health system would improve if the plan is applied in proper way.

"I worked in a neighboring country where 80% of people have health insurance. Therefore, from my work, I noticed that health insurance improves the level of services provided to patients and introduces new services to the hospital. Also, one of the reasons for the development of services is competition between healthcare providers" (Gyno 1).

"If this law is applied correctly, the quality of services given to patients in both the public and private sectors will improve to an excellent level" (IM 3).

The IHIP can improve individuals' health and financial well-being: The majority of physicians explained that this law will help people by reducing their financial burden and allowing them to monitor their health condition.

"I think it will have a positive effect as this law, if applied correctly, will reduce personal spending and reduce financial burdens, and if there are international standards applied to health institutions here, there will be a significant change in the medical services provided to patients" (Onco1).

Change insured individuals' direction from the public to the private sector: Thirteen physicians believed that when the plan is implemented, insured individuals would switch from the public to the private sector, probably because of the better quality of services in the private sector, and shorter waiting periods.

They will visit the private sector more often than the public sector because services are more plentiful because governmental hospitals lose medical services from time to time (FM 3).

"Patients from the public sector will direct toward the private sector for two reasons: The public sector is crowded, and lacks many basic services; and the patient comes to the public sector only for the purpose of examination by us" (Ortho 2).

Six physicians mentioned that if the public sector services improve in terms of the availability and quality, it will attract insured individuals.

"If the public sector changes its current policy and starts arranging things in the right direction and develops its own suites, operating rooms, hotel services, and adds other services, people will be attracted to the public sector" (IM 3).

The IHIP would affect the HCP workload and revenue: Seven physicians stated that the workload

will increase in the private sector due to financial support by Health Insurance Authority (HIA) and the availability of medical services. In contrast, 10 physicians mentioned that the workload will be reduced in the public and private sectors because of co-insurance by patients to HCPs at each visit.

"Yes, there will be more load on the private sector than on the public sector because those who previously could not access the private sector because of their financial situation can now go to private clinics or hospitals when they participate in the plan"(Ortho 3).

"Patients' visits to the public sector will decrease, and the pressure on us will decrease. Therefore, we will get rid of many things if patients have to pay for medical institutions, while the effort by HCPs in the private sector will decrease if there are controls that determine the number of patients" (Gyno 3).

Family physicians can play an important role: The majority of physicians mentioned that family physicians in this plan are important because they will help guide people about the need to see specialists. They can reduce the workload on specialists and enhance the continuity of care.

A family doctor's failure to take a role in treating patients leads to the depletion of hospital resources and puts an additional work burden on specialists (Onco 2).

Potential obstacles facing the implementation of the IHIP: The physicians listed several obstacles that might come up when health insurance is used on a national scale. The potential challenges could be corruption (hinders proper implementation of the plan), provision of comprehensive medical services to insured individuals, patients' overuse (moral hazard), convincing non-governmental employees to join the IHIP, and potential delays in the reimbursement to HCPs.

Corruption would hinder the proper implementation of the IHIP: Twelve physicians said that corruption is one of the challenges that will face us during implementation of the new IHIP, whether it is because of the current political situation or by insured people and HCPs.

"Corruption is the biggest problem with putting this system into place. This includes both administrative corruption and corruption by health care providers, especially private clinics and hospitals, as well as employees who use insurance for their own benefit" (FM 1).

Two physicians thought that medical services wouldn't get better because there is so much corruption in the country.

"From the experiences of other countries, it is supposed to develop, but in reality, under the current circumstances, I don't think it will develop because corruption is in every joint of the state" (Ortho 1).

The provision of comprehensive medical services to those covered by the IHIP is challenging: Nine physicians said that giving medical services to people who have health insurance is important and challenging.

"One of the challenges is personal concerns because people are afraid to pay money on a monthly basis if they do not have access to medical services" (Gyno 1).

Overuse of the IHIP by the insured patients: Three physicians believe that the IHIP may be overused by insured individuals.

"Abuse of the law by patients, for example, a patient requests a caesarean section and she does not need to do the operation" (Gyno 3).

Convincing people to join the IHIP is a challenge: Ten physicians believe that there are people who refuse to deduct from their salaries, as well as others who refuse to join the plan. One reason is people do not trust the state about the possibility of providing medical services after implementation.

"People reject the law and some employees do not accept the monthly deduction from their salaries" (Cardio 2).

Potential delay in the payment process for healthcare providers is a concern: The majority of participating physicians had concern about receiving their payments from the HIA in a timely manner. Some interviewees (participants) have suggested ways to pay HCPs such as setting up an electronic system, a bank account, or a company that pays HCPs.

"Patients who work for oil companies told me during their visit to my clinic that they have financial problems with repayment. Therefore, this point is very important. It's important to come up with ways to speed up the repayment process and set a time limit, as well as find banks to work with" (IM 3).

"If the patient is the one who pays the healthcare provider, there are no problems with payment. But if HIA is the one who pays the healthcare provider, surely there is a problem with payment" (Gyno 1).

Physician' recommendations to Health Insurance Authority for proper implementation of the IHIP: The participating physicians provided several recommendations toward the correct implementation of the IHIP. First, healthcare settings should implement electronic health records, the IHIP needs oversight, a pilot study should be conducted before the national implementation of the IHIP, and raise the awareness of people and HCPs about the IHIP. It is important to select competent individuals to manage and process the claims of the IHIP.

Medical services should be available after the implementation of the IHIP: Half of the participants indicated that medical resources should be available to provide health services after implementation the IHIP. This means that insured individuals should be able to get medical services when they go to HCPs.

"It is essential to provide health facilities, such as hospitals and centers, with the essential equipment in a complete manner" (Onco 2).

Electronic Health Records (EHR) are necessary for proper implementation of the IHIP: Most physicians revealed that an electronic system is pivotal to implement the IHIP properly because through the electronic system, we can collect the patient database and communicate them with the HIA.

"I was outside the country in order to perform an operation on my back. Everything was done electronically, and I do not remember receiving a paper from any department at the hospital. So, we need to connect the two sectors so that we can get a lot of information that we can count for statistical purposes" (Surg 1).

Oversighting the national health insurance program is essential: According to 11 physicians, to implement this IHIP appropriately, it must be carefully overseen. This requires monitoring the activities of patients, HCPs and settings to prevent moral hazard and provider-induced demand.

"We need control and deterring punishment for every person who tries to use this law for their personal interests" (Ortho 2).

"We also need supervision over HCPs, especially at the beginning of the plan and after that, things become routine because everyone gets used to this system" (Gyno 3).

A pilot study should be conducted before the national implementation of the IHIP: Nine physicians recommended pilot study in selected locations for the purpose of observing the challenges and outcomes before implementing the IHIP nationally.

"It is important to complete the technical documents and review them before implementation. After that, we need to implement a pilot plan in specific areas or institutions to detect problems during implementation. Otherwise, comprehensive implementation may lead to a catastrophe" (Dent1).

Enhance the awareness of HCPs and general population about the IHIP: Twelve physicians suggested raising the people and HCP awareness about the IHIP particularly those who are more likely to join the program.

"We need a great effort to implement this plan, so it needs good planning, media orientation, and education of people and HCPs about this law" (Ped 2).

Selecting competent individuals to oversee the implementation of the IHIP: Fifteen participating physicians (out of 26) recommended hiring qualified people to manage this plan. They also suggested that all the employees in the HIA should receive training sessions inside and outside the country to gain skills and experience about the management of medical claims.

"They (competent employees) exist, but they are marginalized, so putting the right person in the right place is one of the ABCs of every work" (Surg 1).
 "The competencies are there, and the law is simple. It only needs courses for the purpose of implementing

this plan in a good way, and we can take this topic from a country that succeeded in implementing this plan and implement it in Iraq, but the problem is not here, our problem is corrupt people" (Ortho 1).

Table 2: Themes and subthemes of physicians' perspectives with respect to the IHIP

Themes	Subthemes
All physicians are supporters for the IHIP.	Financial support to insured individuals. (N=11)
	Change the health reality of medical institutions. (N = 9)
The IHIP will improve quality of services. (22/26)	Competition among HCPs. (N= 7)
	Proper implementation of program. (N = 8)
The IHIP can improve individuals' health and financial well-being. (23/26)	Enhances accessibility
	Enhances affordability
The IHIP will change insured individuals' direction.	Quality of services. (N = 9)
	Waiting time. (N = 4)
	Availability of medical services. (N = 6)
The IHIP will change the workload on HCPs in medical institutions.	Increase workload can increase in the income of HCPs in the private sector.
	Co-insurance will decrease workload in both public and private sector. (N= 10)
	Family physicians can play an important role. (N = 22)
They expected several types of possible obstacles facing the implementation of the IHIP.	Mismanagement would hinder the proper implementation of the IHIP. (N = 12)
	The provision of comprehensive medical services to those covered by the IHIP is challenging. (N = 9)
	Overuse of the IHIP by the insured patients. (N =3)
	Convincing people to join the IHIP is a challenge. (N = 10)
	Potential delay in the payment process for HCPs is a concern. (N = 21)
The IHIP implementation requires many prerequisites.	Medical services should be available after implementation of the IHIP. (N =13)
	Electronic Health Records (EHR) are necessary for proper implementation of the new IHIP. (N =22)
	Oversighting the national health insurance program is essential. (N =11)
	A pilot study should be conducted before the national implementation of the IHIP. (N = 9)
	Enhance the awareness of HCPs and general population about the IHIP. (N =12)
	Selecting competent individuals to oversee the implementation of the IHIP (N =15)

Discussion

The main goals of the IHIP are to increase the access to health services in both private and public sectors and enhance the quality of services. Furthermore, the program aims to reduce the treatment-related financial burden on people (8). All the participating physicians believed it is helpful to implement this plan, and several of them stated that it would help insured people financially. It would also encourage participating healthcare settings to provide better quality services.

The effect of the IHIP on insured individual choices of providers

The findings of the current study, physicians believe that the IHIP would direct insured people to the private sector because it has better quality of services and shorter waiting time compared to the public sector. A situation analysis of MOH and Environment in 2018, showed that the availability of essential medicines in public health institutions was 12% of the essential list of medicines, while 49% of medicines were not available at all throughout the year. This shortage in

the public sector could be due to the lack of financial allocations and wasting in the essential medicines that occurs due to the irrational prescribing and dispensing (6). Some of the interviewed physicians in the current study expected an increase of the workload in the private sector. Currently, the public health sector is overwhelmed with large numbers of patients as it is free of charge. The HCPs in the public sector served more than 51.6 million outpatient visits in 2019 (10). An analysis of the National Health Insurance (NHIS) impact found that many doctors spend extra hours every day trying to keep up with the demands of a huge number of insured individuals. This created stress and exhaustion which can have a negative impact on the physician's performance and may lead to critical mistakes (11). A study exploring moral hazard behaviors in Ghana found that insured individuals' visits to health institutions increased even in simple cases, and sometimes seeking the service even when they are not ill. The aim of unnecessary visits was collecting medicines and giving them to uninsured people which led to long queues (12). The current

study showed that some physicians believe the workload would decrease in both public and private sector due to co-insurance by insured individuals to HCPs. This is consistent with an 32 year old study from the U.S. on the effect of co-payment on reducing the use of medical services which found that five-dollar co-payment per visit reduced physician visits at health maintenance organization (HMOs) by 10.9% (13). A study in Australia found that high co-payment led to fewer physician visits among patients with chronic diseases and limited income (14). Another study in the American Medicare System found that the co-payments made older people with chronic diseases and low incomes less likely to go to outpatient clinics and more likely to be admitted to hospitals and stay there longer (15).

The IHIP can enhance the quality of health services

The majority of the interviewed physicians thought implementing this program would improve the quality of healthcare services. Some expected that HCPs in the public and private sectors would compete, and others suggested that the health system would improve if the program is properly implemented. In contrast, in Ghana after the implementation of NHIS, people suffered from a long waiting time before seeing a physician, especially in public hospitals. Additionally, only cheap medicines were covered by this system, which pushed people to buy medicines from the private sector. Furthermore, after implementing NHIS in Ghana, beneficiaries reported the poor quality of meals provided to inpatients and the rude and disrespectful behavior of some nursing staff when dealing with patients, particularly in public-sector hospitals (16).

The effects of the IHIP on insured individuals' health and financial well-being.

The majority of interviewed physicians believe that the IHIP would provide financial support to insured people. Consequently, those people can monitor their health status. Similarly, a study conducted 10 years after implementing the Taiwan's National Health Insurance program showed a decrease in death rates in groups that had higher death rates before the implementation (17). A US-based study had addressed the effect of implementing the Affordable Care Act (ACA) through looking at the data of more than 10,000 adults diagnosed with colorectal cancer. It found that the insured age groups benefited greatly, as the rate of early diagnosis increased from 12.8% before implementation to 27.8%. Additionally, some of the patients who had surgery were able to receive chemotherapy after the operation 50.4 days after the law was implemented, knowing that the estimated time before implementation of ACA was 57.4 days (18).

A systemic review was done to look at out-of-pocket payments for health care under NHIS in Guinea found that people without health insurance pay between 1.4

and 10 times more out of their own pockets than people with health insurance. Thus, they are most likely exposed to catastrophic health costs (19). The World Health Organization (WHO) recommends that no more than 30% of healthcare expenditures be paid by patients themselves, while international health institutions report that patients in Iraq pay more than 70% of all healthcare costs (20).

Electronic health records are essential for the proper implementation of the IHIP.

Most of the physicians interviewed in the current study have recommended that it is important to use the electronic-based system instead of the currently used paper-based system to ensure that IHIP is correctly implemented keeping track of patients. According to two recent studies in Baghdad, hospital physicians and pharmacists indicated they do not have an electronic health records (EHRs) that helps them keep track of adverse drug reactions (ADRs) and report them (21,22). Another recent Iraqi revealed that pharmacists also recommended adopting electronic health records before implementing IHIP (23). A review article that looked at the benefits of using the electronic system in the Kingdom of Saudi Arabia found that it helps HCPs to identify drug interactions and abnormal lab results. It also makes it easier for HCPs to communicate with and follow-up patients (24). The study also looked at the problems that keep physicians from using electronic-based systems. Potential barriers to use EHRs include risking the patient confidentiality, losing patient data due to technical problems, time needed for data entry, minimizing communication between the doctor and the patient, and a lack of language and programming skills. For these reasons, the slowing down of the comprehensive application of EHRs in the KSA happened (24). Similar challenges may face Iraqi healthcare system before adopting EHRs.

Potential challenges could face the implementation of the IHIP: Physicians participating in the current study listed several challenges that may face the implementation of insurance program at the national level, including the provision of comprehensive medical services to all insured people, convincing people to join the IHIP, corruption, patient moral hazard (overuse) and potential delays in the reimbursement to HCPs. A study in Nepal identified several challenges and drawback after implementing the national health insurance program. It found that people with chronic diseases were more frequently registered in the national health insurance program, shortages in human resources, shortages in health institutions, lack of people's awareness of the health insurance program especially in rural areas, low promotion of the program through the media, long waiting lists, late payment, lack of health services, increase in HCP workload, lack of confidence in the program, fraud, requesting unnecessary services by

patients, and prescribing unnecessary services by HCPs (25). Similarly, after adopting the NHIS in Ghana, there were several problems. There were long waiting times, discrimination against insured people by HCPs, delays in reimbursement, higher costs for medical services, and a high workload on HCPs (26).

Study Limitations: This study has some limitations. Some physicians were non-comfortable with the audio recording. Most participants were from one province (Thi-Qar) which is the province of the interviewer (more accessible). As with other qualitative studies, the findings may not be generalizable to all Iraqi physicians. Because they are time-consuming, qualitative studies usually recruit smaller sample size compared to quantitative studies. Thus, the findings of the qualitative studies may be restricted to understanding the participants' thinking and developing hypothesis rather than proving or generalizing certain findings.

Conclusions

Main themes and subthemes of physician's insight regarding national health insurance. All participating physicians were supporters for the health insurance implementation. Potential advantages of the national health insurance program include 1) Insurance can enhance quality of services through creating competition among healthcare providers, 2) enhances patient accessibility to healthcare services, 3) enhances patient affordability. Potential challenges facing the health insurance program may include 1) potential delays in the payment process to HCPs, 2) implementation of electronic health records, 3) patient moral hazard (overuse of healthcare services) and 4) convincing people at the private sector to join the program. The IHIP has several potential advantages, but at the same time, it can face several technical challenges. Thus, the program should be well studied before being implemented at national level. It needs to be piloted at few provinces to identify and address any difficulties and technical problems. Electronic health system must be adopted to facilitate transferring data to health insurance authority. Hiring international experts to help managing the medical claims is pivotal to avoid delaying in the processing. Finally, the Health Insurance Authorization needs to raise the awareness of HCPs and people about the program.

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We hereby confirm that all the Figures and Tables in the manuscript are ours.

-Authors sign on ethical consideration's approval- Ethical Clearance: The project was approved by the local ethical committee in the University of Baghdad College of Pharmacy. According to the code number (2652.15-5-2022).

Authors' contribution

Hayder Naji Sameer (first author) participated in Conceptualization, Data Curation, Formal Analysis, Investigation, Visualization, and Writing – Original Draft Preparation

Ali Azeez Al-Jumaili (2nd author) participated in Conceptualization, Project Administration, Supervision, Formal Analysis, Methodology, Validation, Visualization, and Writing – Review & Editing

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التأثير المتوقع لبرنامج الضمان الصحي العراقي والتحديات التي تواجه تنفيذه: وجهة نظر الأطباء

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الخلاصة

خلفية البحث: يغطي نظام التأمين الصحي النفقات الطبية من قبل طرف ثالث. تمت الموافقة على قانون التأمين الصحي العراقي في عام 2021. يجب على معظم المرضى المؤمن عليهم دفع تأمين مشترك بنسبة 25% للوصفات الطبية والفحوصات المعملية والأشعة السينية وخدمات طب الأسنان ودفع 10% من رسوم زيارة الطبيب.

الأهداف: إستبيان روى الاطباء تجاه تأثير التنفيذ المرتقب لبرنامج الضمان الصحي العراقي على المرضى ومقدمي الرعاية الصحية والخدمات وتحديد التحديات المحتملة التي تواجه تنفيذه.

منهجية البحث: كانت هذه دراسة نوعية تضمنت مقابلات شبه منظمة وجهاً لوجه مع أطباء متخصصين من مختلف التخصصات (الباطنية وطب الأسرة والقلبية وجراحة العظام والأورام والنسائية والجراحة العامة والأطفال وطب الأسنان). تضمن دليل المقابلة أسئلة مفتوحة حول تأثير البرنامج على المرضى ومقدمي الرعاية الصحية على ثلاثة مستويات: جودة الخدمات والتكاليف وعدد الزيارات. كما تمت مناقشة التحديات المحتملة. أجريت المقابلات في ستة محافظات من 19 أبريل إلى 31 أغسطس لعام 2022. تم استخدام التحليل الموضوعي لتحليل نتائج المقابلات وتوليد الموضوعات والمواضيع الفرعية.

النتائج: أشارت الدراسة إلى العديد من الموضوعات حسب وجهة نظر الاطباء فيما يتعلق ببرنامج الضمان الصحي الجديد في العراق. وظفت الدراسة 26 طبيباً حتى الوصول إلى نقطة التشبع. ستة عشر فقط من المشاركين كانوا على دراية ببرنامج الضمان الصحي العراقي. يعتقد معظم المشاركين أن البرنامج يمكن أن يعزز صحة المريض ويزيد من دخل مقدمي الرعاية الصحية في القطاع الخاص. كما توقعوا أن يتوجه المرضى الى مقدمي الخدمة في القطاع الخاص. بالإضافة إلى ذلك، يمكن أن يؤدي تطبيق الضمان الصحي إلى تحسين جودة خدمات الرعاية الصحية وتقليل العبء المالي المتعلق برسوم القطاع الخاص. تشمل التحديات المحتملة لتنفيذ البرنامج الفساد، تقديم خدمات طبية شاملة لأولئك الذين يشملهم برنامج يمثل تحدياً والإفراط في استخدام الخطة من قبل المرضى المؤمن عليهم، وإقناع الموظفين غير الحكوميين بالانضمام إلى خطة الضمان الصحي والتأخيرات المحتملة في السداد لمقدمي الرعاية الصحية.

الاستنتاجات: يتمتع البرنامج بالعديد من المزايا المحتملة، ولكن في نفس الوقت، يمكن أن يواجه العديد من التحديات التقنية. وبالتالي، يجب دراسة البرنامج جيداً قبل تنفيذه، ويجب تجريبه على نطاق صغير قبل التنفيذ الوطني. يجب اعتماد النظام الإلكتروني لتسهيل نقل البيانات إلى هيئة الضمان الصحي. يعد تعيين خبراء دوليين للمساعدة في إدارة الفواتير الطبية أمراً محورياً لتجنب التأخير في المعالجة. أخيراً، تحتاج هيئة الضمان الصحي إلى زيادة وعي مقدمي الرعاية الصحية والأفراد حول خطة الضمان الصحي الوطنية.

الكلمات المفتاحية: خطة الضمان الصحي، هيئة الضمان الصحي، مقدمي الرعاية الصحية، جودة الخدمة، التحديات، تصورات، دراسة نوعية، الأطباء العراقيون.