

POSSIBILITY OF TRANSFORMATION OF PRIMARY HEALTH CARE CENTERS
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ABSTRACT

Background: Primary health care (PHC) centers represent the first level of contact between the community and the health system and play a major role in providing essential health services. The family health approach aims to improve the quality, continuity, and comprehensiveness of health care through integrated services delivered by trained family physicians and multidisciplinary health teams. **Objective:** To evaluate the possibility of transforming primary health care centers into family health centers within Baghdad Al-Karkh Health Directorate. **Methods:** A descriptive analytical study was conducted between September and November 2017 in six PHC sectors belonging to Baghdad Al-Karkh Health Directorate. A total of 60 health centers were included, of which 41 operated under the conventional PHC system and 19 under the family health system. More than 13 variables related to family health requirements were assessed, including number of physicians, family physicians, medical and health staff, medical units, dental units, archive systems, radiology units, ultrasound availability, and visitor health programs. **Results:** Most centers had adequate population coverage, suitable infrastructure, sufficient medical and health staff, and active archive systems. Radiology and ultrasound services were available in the majority of centers. However, there was a marked shortage of specialized family physicians and limited staff training regarding the family health system. Approximately more than half of the PHC centers were considered capable of transformation into family health centers after minor modifications and resource support. **Conclusion:** Transformation of PHC centers into family health centers is feasible in Baghdad Al-Karkh. Successful implementation requires improved training programs, redistribution of family physicians, strengthening of infrastructure, and enhancement of electronic health systems and community awareness.

KEYWORDS: Transformation, Primary Health Care, Family, Health, Centers.

INTRODUCTION

Primary health care (PHC) is considered the cornerstone of every effective health system because it provides essential health services that are accessible, affordable, and acceptable to individuals and families within the community. PHC represents the first level of contact between the population and the national health system and contributes significantly to disease prevention, health promotion, treatment, and rehabilitation services. A strong PHC system improves population health outcomes, reduces healthcare inequalities, and supports sustainable social and economic development.^[1] The Declaration of Alma-Ata in 1978 emphasized that primary health care is the key strategy for achieving

“Health for All” and highlighted the responsibility of governments to ensure equitable healthcare services for their populations.^[2] Since then, many countries have adopted reforms aimed at strengthening PHC systems through the development of family health and family medicine programs. The family health approach focuses on comprehensive and continuous care for all family members regardless of age, sex, or disease condition. It also promotes long-term relationships between healthcare providers and families, which improves disease prevention, early diagnosis, follow-up, and patient satisfaction.^[3] Family health centers are designed to provide integrated preventive, curative, promotive, and rehabilitative services through multidisciplinary

teams led by trained family physicians. The use of family medical records and electronic health systems enhances continuity of care and improves monitoring of community health indicators.^[4] Furthermore, family medicine programs contribute to reducing unnecessary referrals to hospitals and improving the efficiency of healthcare delivery systems. In Iraq, the healthcare system has experienced major challenges over the past decades because of wars, economic sanctions, political instability, and deterioration of infrastructure. These factors negatively affected the quality of health services, availability of medical resources, and efficiency of healthcare institutions.^[5] Consequently, there is an increasing need to strengthen PHC services and adopt modern family health strategies to improve healthcare accessibility and quality. The Iraqi Ministry of Health has introduced policies supporting the implementation of the family health model within PHC centers. However, successful transformation requires adequate infrastructure, trained healthcare workers, diagnostic facilities, electronic information systems, and public awareness regarding the role of family medicine.^[6] Therefore, the present study aimed to evaluate the possibility of transforming primary health care centers into family health centers in Baghdad Al-Karkh Health Directorate.

METHOD

A descriptive analytical study was conducted between September and November 2017 to evaluate the possibility of transforming primary health care (PHC) centers into family health centers within Baghdad Al-Karkh Health Directorate. The study included six PHC sectors affiliated with Baghdad Al-Karkh Health Directorate, namely Al-Dora, Al-Adel, Al-Karkh, Al-Kadhimiya, Al-Amel, and Al-Ealam sectors. A total of 60 health centers were involved in the assessment, including 19 centers already operating under the family health system and 41 centers functioning under the conventional PHC model. Data collection was carried out through direct field visits and structured assessment of the participating health centers. More than 13 indicators related to the requirements of the family health system were evaluated. These variables included total population coverage, number of registered families, total number of physicians, number of general practitioners, number of family physicians, availability of medical and health staff, number of consultation rooms, number of active medical units, availability of dental units, radiology and ultrasound services, archive units, and implementation of the visitor health program. The assessment focused on determining the readiness of PHC centers for transformation into family health centers according to infrastructure, human resources, diagnostic facilities, and organizational requirements. The availability of electronic and archival systems for family records was also evaluated as part of the family medicine model requirements. Data were summarized using descriptive statistical methods including frequencies, percentages, and distribution of variables among the

studied centers. Results were presented in tables and graphical charts to demonstrate the distribution of resources and the extent of preparedness for implementation of the family health system. The findings were used to identify strengths, deficiencies, and the major requirements necessary for successful transformation of PHC centers into family health centers within the studied sectors.

RESULTS

A total of 60 primary health care centers distributed across six sectors of Baghdad Al-Karkh Health Directorate were included in the study. Among these centers, 19 were already operating under the family health system, whereas 41 centers were functioning under the conventional primary health care model. The studied sectors included Al-Dora, Al-Adel, Al-Karkh, Al-Kadhimiya, Al-Amel, and Al-Ealam sectors. The assessment of the studied centers demonstrated that the majority had acceptable infrastructure and healthcare resources required for the implementation of the family health system. The total number of physicians working in the centers was 254, including 234 general practitioners and only 16 family physicians. In addition, 1,741 medical and health personnel were distributed across the included centers. The total number of registered families was 82,852, serving a population of 1,543,013 individuals. Regarding diagnostic and administrative facilities, radiology units were available in 63.5% of the centers, while ultrasound devices were present in 88.0% of centers. Archive units for family records were available in 68.0% of centers, whereas the visitor health program was implemented in 83.0% of centers. The distribution of general practitioners showed variability among the centers. The highest proportion of centers (19.6%) had five general practitioners, while 17.1% of centers had eight physicians. However, 68.3% of centers lacked family physicians, and only 31.7% had one or two family physicians available. Assessment of family coverage revealed that 58.5% of the centers served more than 5,000 families, while 39.0% covered between 750 and 5,000 families. Only one center (2.4%) covered fewer than 750 families, indicating limited eligibility for implementation of the family health model. Overall, the findings indicated that more than half of the primary health care centers could be transformed into family health centers after improving workforce distribution, training programs, and infrastructure requirements as in table 1 and 2, and as in fig (1-4).

Table 1: Distribution of Main Study Variables.

Variable	Number
Total physicians	254
General practitioners	234
Family physicians	16
Dental units	80
Medical and health staff	1741
Registered families	82852
Population covered	1543013

Table 2: Availability of Diagnostic and Administrative Units.

Unit	Available n (%)	Not Available n (%)
Radiology unit	26 (63.5%)	15 (36.5%)
Ultrasound device	36 (88.0%)	5 (12.0%)
Archive unit	28 (68.0%)	13 (32.0%)
Visitor health program	34 (83.0%)	7 (17.0%)

Distribution of Health Centers Across Sectors

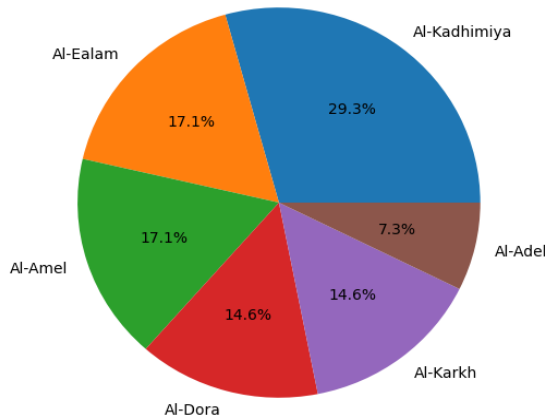


Figure 1: Distribution of health centers across the studied sectors.

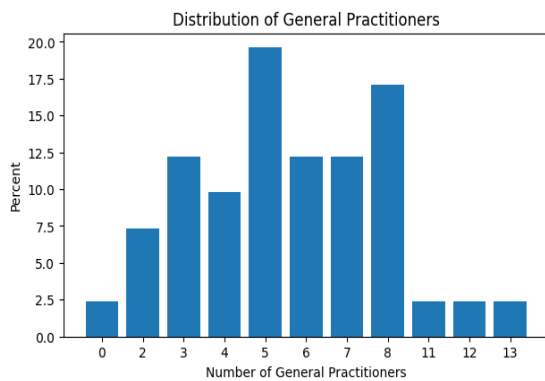


Figure 2: Distribution of general practitioners among health centers.

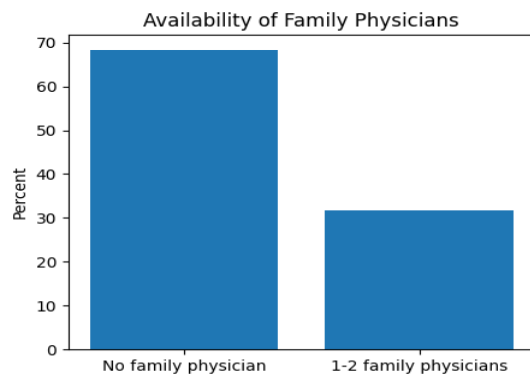


Figure 3: Availability of family physicians in primary health care centers.

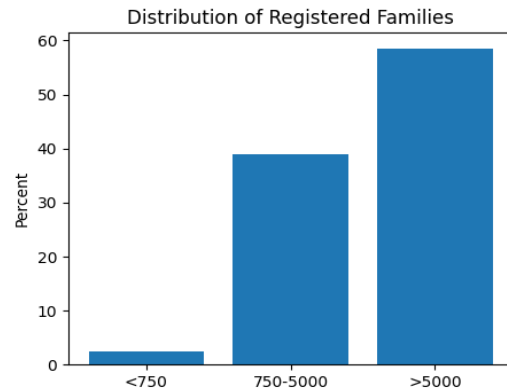


Figure 4: Distribution of registered families among health centers.

DISCUSSION

The present study evaluated the possibility of transforming primary health care (PHC) centers into family health centers within Baghdad Al-Karkh Health Directorate. The findings demonstrated that a considerable proportion of the studied PHC centers possessed the essential infrastructure and healthcare resources necessary for implementation of the family health model. These findings support the growing emphasis on strengthening PHC services as a fundamental strategy for improving healthcare quality and accessibility in developing countries.^[1] The study revealed that most health centers had adequate population coverage, acceptable building capacity, sufficient consultation rooms, and an appropriate number of medical and health personnel. In addition, radiology units, ultrasound services, and archive systems were available in most centers. Similar findings were reported in regional health system assessments that emphasized the importance of infrastructure and diagnostic facilities in ensuring successful implementation of family medicine programs.^[2] The presence of medical archives and electronic documentation systems is considered an important component of continuity of care and effective patient follow-up within the family health approach.^[3] Despite these positive findings, the major challenge identified in the present study was the severe shortage of family physicians. More than two-thirds of the assessed centers lacked qualified family physicians, while only a limited number had one or two trained family medicine specialists. This shortage represents a major barrier to implementation of the family health model because family physicians play a central role in providing comprehensive, continuous, and preventive healthcare services.^[4] Similar workforce deficiencies have been reported in several Middle Eastern healthcare systems undergoing PHC reform.^[5] Another important finding was the variability in the distribution of general practitioners among the studied centers. Although the overall number of physicians appeared acceptable, unequal distribution may negatively affect service delivery and workload balance. Proper redistribution of healthcare workers and continuous professional training are therefore essential for improving efficiency and

ensuring successful transformation into family health centers.^[6] The current study also demonstrated that most centers covered more than 5,000 families, indicating a high demand for organized and integrated healthcare services. The implementation of the family health model in such settings may improve disease prevention, patient follow-up, referral systems, and management of chronic diseases. Previous studies have shown that family medicine programs contribute significantly to improving healthcare outcomes and patient satisfaction while reducing unnecessary hospital admissions.^[7-10] Overall, the findings of this study indicate that transformation of PHC centers into family health centers in Baghdad Al-Karkh is feasible. However, successful implementation requires strengthening of family medicine training programs, improvement of infrastructure, expansion of electronic health systems, and increased governmental support for PHC services.

CONCLUSION

The present study demonstrated that transformation of primary health care centers into family health centers in Baghdad Al-Karkh Health Directorate is achievable in a considerable proportion of the assessed centers. Most centers possessed acceptable infrastructure, sufficient medical and health staff, and adequate diagnostic facilities required for implementation of the family health model. However, major challenges included the shortage of trained family physicians, unequal workforce distribution, and limited training on family medicine principles. Strengthening family medicine programs, improving healthcare infrastructure, enhancing electronic health systems, and increasing community awareness are essential steps for successful implementation of the family health approach and improvement of primary healthcare services in Iraq.

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