

主論文の要旨

**Free and universal access to primary healthcare in
Mongolia: the service availability and readiness
assessment**

（ 無料且つ誰でも利用可能なモンゴルの一次医療：
医療提供の利用可能性と準備の評価 ）

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【Introduction】

After the collapse of the socialist state system in 1990, one of the first major reforms initiated by the Mongolian government was shifting priorities toward primary health care (PHC) while encouraging participation from the private sector in service delivery. The government has established the Family Health Centers (FHC), which are private entities managed by primary care physicians to provide PHC services in urban areas. FHCs are operated under contract with local governments and financed from state budgets based on the number of registrants. The new system has been shaped on principles of equity and social justice, where a package of essential healthcare services is provided, free of charge, to everyone at the primary level.

Currently, provisions for universal, equally accessible, quality, and free-of-charge PHC is stipulated within Mongolian law. The essential service package includes healthcare for neonates, children and adolescents, women of reproductive age, elder adults, communicable and non-communicable diseases, emergency care, nursing, and public health services. As of 2018, there are 549 PHC providers, including 218 FHCs that adsorb 18.6% of total government health expenditures and employ 11.5% of the total healthcare workforce. However, client satisfaction surveys often report low satisfaction among users in terms of quality and availability of FHC services. Therefore, the present study examined the availability of PHC services among FHCs in Ulaanbaatar, the readiness of FHCs to provide those services, and discussed the reasons that PHC provisions are hampered.

【Materials and methods】

The present study was based on the service availability and readiness assessment (SARA) survey conducted in Chingeltei and Khan-Uul districts of Ulaanbaatar. SARA is a tool developed by WHO for generating a set of indicators that provide information regarding whether a facility meets the required conditions for supporting provisions of basic or specific services with a reliable level of quality. The assessment was conducted between May and October 2017 and was carried out in 170 public and private health facilities.

The survey deployed 201 tracer indicators under three focus areas: general service availability, general service readiness, and service-specific readiness (Table 1). To assess general service readiness, we calculated scores for each of five domains based on mean availability of tracer items. Then mean of all five domains was calculated and expressed as a general service readiness index. The same approach was used when computing the service-specific readiness score. For each of the 11 selected services, a readiness score was computed as the mean availability of service-specific items across four domains. Readiness was calculated via a frequency and mean level of differences between groups with 95% confidence intervals [95% CI]. Data were exported and analyzed using SPSS 21.0, and a Kolmogorov–Smirnov, Mann-Whitney U and Kruskal-Wallis, and Chi-square tests where appropriate.

【Results】

1. General availability and readiness

The overall capacity of the health facilities in the two districts to provide basic services at minimum standards was 44.1% (Table 2). Diagnostic capacity was very low, with only 13.9% of all 10 basic diagnostic items available across all facilities. The presence of 13 essential medicinal items was also low (14.5%). Availability of six basic equipment items was 47.2%, and availability of basic amenities was 69.1%. Overall, only 40.8% of health facilities in Chingeltei and 47.8% in Khan-uul had the capacity to provide basic health services at minimum standards.

2. Availability of PHC

The assessment revealed that availability of the 11 selected PHC services was 17.0% in Chingeltei and 23.1% in Khan-uul (Table 3). FHCs that offer all, but basic obstetric and newborn care, surgery, and blood transfusion services were the highest in terms of their capacity to provide PHC among all health facilities reviewed (69.5%). The overall density of health facilities offering PHC services was below 1 facility per 10,000 population compared to a total health care facility density of 4.6 per 10,000 (Table 4).

3. Service-specific readiness

Family planning services, one of the key elements for maternal, child, and reproductive health, were offered in all FHCs, with an overall readiness score of 44.0% (Table 5). Readiness was hampered mostly due to a lack of oral and injectable contraceptives, and male condoms, as required per national standards. Overall readiness among FHCs to provide *antenatal care services* was at 56.5%. FHCs play a central role in screening pregnant women, regular monitoring during and after the pregnancy, and timely referrals to specialists if needed. However, only 67.7% of FHCs could check hemoglobin levels in the blood and protein levels in urine; furthermore, few facilities had iron and folic acid tablets, and the tetanus toxoid vaccine in stock (8.6%). Readiness for *routine immunization services* was assessed at 83.6%. FHCs reported sufficient capacity in terms of trained staff. However, vaccines were not widely available (65.5%). Readiness for *preventive and curative care for children under-five years old* among FHCs was 44.5%, with major deficiencies in diagnostic capacity (6.5%) and medicinal supply (18.9%). Availability of required diagnostic tests and essential medicines varied from 6.5% to 12.9%. Readiness for *adolescent health services* among FHCs was 74.2%. The presence of staff trained to provide reproductive health services, and condom distribution were 59.7% and 35.5%. Readiness among FHCs for *tuberculosis services* was rated at 53.4%. FHCs mostly relied on symptom-based diagnostics due to a lack of diagnostic capacity (25.5%), and first-line anti-TB drugs (6.7%). The readiness score *HIV counseling, testing, and STI services* among FHCs was 52.2%. The weakest component was ensuring a

patient's privacy due to facility limitations (31.8%), and availability of rapid tests (72.8%). Readiness for *diagnosis and/or management of non-communicable diseases* was 51.7% for FHCs. The weakest domain was availability of essential medicines for diabetes (15.8%) and for respiratory diseases (10.8%).

【Discussion】

The study revealed serious limitations with ensuring universal access to basic health services in Mongolia. The number of health facilities and personnel is 2-3 times higher compared to international benchmarks; however, only 44.1% of health facilities had the capacity to provide basic health services at minimum standards. Additionally, the availability of PHC services across all health facilities tested was as low as 19.8%. The important services, such as family planning, routine immunization, antenatal care, preventive and curative care for children under-five years old, and non-communicable and communicable disease diagnosis and management, were only accessible in FHCs. However, service specific readiness of FHCs varied from 44.0% to 83.6% and were hampered mostly due to the unavailability of essential medicines and diagnostic tests.

A major factor underlying low service readiness among FHCs is a lack of PHC funding. The amount paid under a capitation fee (\$4.5 per person per year) is too low to cover costs related to primary care and services that FHCs are supposed to provide. While government allocation for PHC has increased over the past 15 years (from 17.5% of public health expenditures in 2000 to 25.0% in 2016), the proportion of government spending on FHCs has remained at around 4.0% during this period. Unavailability of diagnostic and treatment services within FHCs force people to refer to higher level hospitals; hence, system inefficiencies arise. This also contributes to increased direct payments. Overall out-of-pocket costs accounted for 39.0% of total health expenditures in 2015, and 1.1% (or 20,000 people) were forced into poverty due to healthcare costs every year.

【Conclusion】

Free and universal PHC is stipulated within various policies and regulations in Mongolia; however, the present results revealed that availability of basic health services within specific facilities is insufficient. Among all facility types, FHCs contribute most to PHC provisions, but readiness was mostly hampered by a severe lack of diagnostic capacities and essential medicines. If provisional shortcomings among FHCs in Ulaanbaatar are not addressed appropriately, the current system will further contribute to overall health inefficiencies, financial inequalities, and insecurities.