Socioeconomic inequity in health care utilization, Iran

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Abstract   Reducing poor–rich inequities in health is one of the priorities of both national and international organizations and is also one of the main challenges of health sectors in Iran. Since, in the view of policy making, quantifying the size of inequity in health care utilization (HCU) is a prerequisite for achieving this goal, the current study aimed to determine and compare the socioeconomic inequity in HCU by concentration (C) index and odds ratio (OR).

Methods: A total of 758 households, consisting of 2,131 subjects who were aged 15 or older, were involved in this cross-sectional study, and their data were gathered through interviews. Household economic index (HEI) was created by the factor analysis from the asset data. The C index and OR were used as measures to determine the overall inequity in HCU according to sex (male/female), living area (urban/rural), insurance, and types of HCU (general physician [GP], specialist, and Health Workers [HWs]).

Results: The overall rate of HCU was 66.4%. The rates of using GP, specialist care, and HW care were 21.4%, 21.6% and 21.8%, respectively. The overall inequity in HCU was equal to 0.05 (95% confidence interval; −0.069 to 0.165). The C indexes in HCU, according to the subgroups of HCU, were measured as 0.11 (0.09–0.12) for GP, 0.115 (0.01–0.13) for specialist and −0.065 (−0.08 to −0.05) for HWs. Although

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the rate of utilization increased from poor to rich quintiles, the inequity regarding sex and living area was also low and non-significant.

Conclusion: People with higher HEI used more specialist and GP care, while people with lower HEI used more HW care. The inequity in HCU was low and non-significant in different quintiles of males, females, urban and rural, as well as those who were insured.

1. Introduction

Based on the available literature on the issue of inequity, it is clear that this topic is important regarding health policy and health decision making [1,2]. In addition, persistent disparities in health regarding socioeconomic position have had a long history in health policies in many developed and developing countries [3]. Moreover, reducing poor—rich inequities in health care has recently become one of the most important priorities of national governments and international organizations [3]. According to Iran's health innovation and science development plan, the goal of reducing the inequity is one of the main challenges of health sectors in Iran [4]. However, establishment of the value of these differences and quantifying the size of the inequity is a prerequisite for achieving this goal [3]. Therefore, a great number of methodological studies have been recently conducted on health inequity using the methodology developed by Van Doorslaer et al., Wagstaff et al., and Kakwani et al. [5—8]. This methodology is based on a decomposition analysis of the concentration index. Also, other studies have been performed to compare the inequity indexes among countries regarding health care utilization (HCU) [5,6]. The inverse care law was described by Hart [9] for inequity in medical service access in South Wales as: ''The availability of good medical care tends to vary inversely with the need for it in the population served,'' followed by other researchers [10—13] and challenged in other studies [10,12]. However, in Iran, public sectors provided free primary health care for all people even for satellite rural areas. This care was delivered in the first level of the systems in health centers by health workers. The financing of specialized care, such as dental or surgical care, is not free. Nevertheless, unfortunately, no published articles on the issue of inequity in HCU in Iran were found. Hosseinpoor et al. published results of a national health services utilization survey, but that study did not utilize an inequity approach [14]. However, inequity in infant mortality was established across provinces of Iran,

and a wide range of inequity was observed in different local areas [15].

Recent studies showed inequity in health indicators, such as childhood malnutrition and HCU, among developed and developing countries [2,5,15—17]. The results of these studies indicated that although inequity has decreased over the past years, there were differences in health indexes among different socioeconomic subgroups of people. In addition to the socioeconomic status, these studies showed that living area, insurance, job, age, and sex were the determinants of HCU [5,16—19].

Using some health policies, developing countries tried to decrease some inequities by universal coverage of insurance and other facilities, such as rural insurance and family physician, which are implemented in Iran [20,21]. However, the form of inequity in HCU has been changed recently in a way that higher-income groups have more medical specialist care utilization while general physician care utilization is more in lower-income groups [6]. Therefore, more studies need to be conducted in these areas on the pattern, rather than existence, of inequity in HCU and the type of utilization. Markazi province is located in the center of Iran, and in spite of high access to health, it experienced a high inequity in infant mortality rates compared with other provinces [15]. Also, with all the improvements in the health indicators in the country [22,23], the burden of diseases in this region was higher than other provinces in 2006 — respiratory system diseases were in the third rank of diseases with regard to years of life lost [24]. Moreover, previous works [18,19] showed evidences of disparity among people in different social and demographic groups in this province.

However, according to the viewpoint of policy makers, the inequity or other health indicators are more likely to be reported locally [5,15]. Therefore, it was decided to quantify the socioeconomic inequity in HCU in the Markazi province, Iran, by using the concentration (C) index and odds ratio (OR) in order to provide a measure for policy