ABSTRACT Family physicians in the Islamic Republic of Iran have been providing health and medical services to residents from rural areas since 2005, and from 2011 these services have been delivered to urban residents in Fars and Mazandaran provinces. This study was conducted in 2014 to measure the rate of user satisfaction with services provided by family physicians to the rural and urban population of the second most populated county in Fars province (Marvdasht county, population > 330 000). In urban and rural areas, 1650 houses (825 in rural and 825 in urban areas) were selected, of which 1561 houses were inhabited (2908 individuals in urban and 3062 individuals in rural areas) and an interview-administered doorstep questionnaire was completed. Overall satisfaction rate was 59.2%: 54.5% for urban areas and 63.2% for rural areas. This study suggests that satisfaction is higher among rural residents and that better quality services from family physicians are needed in both rural and urban communities.
Introduction

Health is designated as a fundamental human right by almost all countries and its development is considered as one of the most important government responsibilities (1). Quality, accessible and cost–effective health services and satisfaction of users are the core principles in any health care system (2). Family physicians are used by national health systems in many countries to deliver basic medical care. The family physicians programme (FPP) seems to be an effective approach for increasing equitable access to health and medical services (3).
The fourth national strategic programme on Iran’s economy and social and cultural development stresses the importance of expanding the coverage of health insurance, with a significant focus on the family physician and referral system. The Iranian FPP and patient referral system started in rural areas a long time ago (4). The FPP is running as a pilot project in urban areas of 2 provinces, Fars and Mazandaran. In Fars province, the fourth largest province by population, the urban family physician services have been delivered to urban residences since 2011. A large number of staff and facilities are involved in this programme, in fact, about 1052 general practitioners, 1214 specialists, 376 laboratory centres, 134 radiology departments and 591 pharmacies are working with the Ministry of Health and Medical Education as a team member of the FPP (5).

According to the Iranian FPP and urban referral system guidelines, the participating family physicians are responsible for people’s primary medical care and follow-up of patients whom they have referred to the specialized levels. Each urban residence can register with only 1 family physician, a general practitioner who participates in FPP and through whom required medical services are to be provided or arranged (1). As a result, the first line of contact of a person to the national health system is made via the family physician. As the first level of contact with the health system, family physicians provide some basic health and medical services, including primary health care, drug prescription and para-clinical services. If necessary, at the second and third levels, specialized out- or inpatient medical and para-medical services are delivered to patients referred by their family physician. After receiving services at the second and third levels, the results of diagnostic and therapeutic measures and other services are sent back to the family physician to be filed in the family’s health file. All services which are provided by the FPP are free or subsidized by the government. Patients who do not want to use referral services or want to use medical services from the private sector are charged for all costs (4). In rural areas, health houses run by trained health staff are responsible for primary health and treatment care. In case of necessity or users’ request, patients may be referred to the rural health centre to visit a family physician (4).

According to World Health Organization (WHO) guidelines, all countries need to establish continuous monitoring and evaluation programmes to evaluate the health system in order to increase effectiveness, quality of health services and user satisfaction (6). These monitoring programmes are to assess short- and long-term benefits, including improvements in health status and its related indexes, rate of accessibility, types and quality of care and user satisfaction, as well as the costs of the health services.

Among the above indices, measuring the level of user satisfaction is important as it directly and indirectly represents the efficacy and quality of health services. Rate of satisfaction with health services should be regarded as a fundamental measure for evaluation of any health programme (4). Evaluation studies, as suggested by WHO, are effective in identifying and solving problems
of national health services (6). Nevertheless, evaluation studies on Iranian user's satisfaction with services provided by family physicians are limited.

Marvdasht is one of the largest counties in Fars province, with a population of more than 330,000, 170,000 urban and 160,000 rural. The county has 1 city, Marvdasht, and more than 200 villages. Marvdasht is the second largest city after Shiraz, the capital of Fars province. According to the official report of the Ministry of Health of Fars province, in this county the public sector runs 1 hospital, 24 government health centres and 115 health houses. Medical and health services are also provided by the private sector via 310 nongovernmental clinics and medical centres (run by 63 specialists, 73 general practitioners and 39 dentists).

The aim of this study was to measure the satisfaction with medical services provided by family physicians in rural and urban areas of Marvdasht county.

**Methods**

This cross-sectional study was conducted in Marvdasht county, Fars province, in 2014. Sampling was done through a multi-stage cluster design. The household was defined as the sampling unit.

Prior to the main study, a pilot study on 160 households from the same source population was carried out to evaluate the questionnaire and sampling procedures. According to the results of the pilot study, although sample size was estimated at 2800 households (for rural and urban areas separately), due to the expectation of the presence of temporarily or permanently uninhabited houses in both, 1650 houses (825 in rural and 825 in urban areas) were selected, of which 1561 houses were habited (2908 individuals in urban and 3062 individuals in rural areas in total participated, of which 4312 households were registered with the FPP). Only 27 households in rural and 62 in urban areas did not agree to participate.

Information was collected through completing a doorstep questionnaire via interview administered by trained health nurses. The content validity of the questionnaire was evaluated by an expert committee consisting of a family physician, a community medicine physician, a public health specialist and 2 epidemiologists. The questionnaire and all research procedures were evaluated and revised during the pilot study. The reliability of the questionnaire was evaluated using the test–retest approach (Cronbach alpha = 0.67). Household members over 18 years of age were interviewed by a same-sex interviewer. The mother (or homemaker) was also interviewed on behalf of underage household members or those who were not available for
The status of perceived satisfaction with the FPP and referral system was categorized in 5 levels: totally dissatisfied, dissatisfied, moderate, satisfied and totally satisfied. Information on the type of provider and quality of the most recent health services used by the participants (excluding dental health services) was obtained from the participants during the interview.

The service providers to the rural population are divided into 7 categories: health houses, rural health centres, family physician, private physician, government hospital, private hospital and other. The service providers to the urban population are divided into 6 categories: urban health centre, family physician, private physician, government hospital, private hospital and other.

The main reason for selecting a particular service provider was elicited (asked as an open-ended question) from the participants. The answers were later combined into 3 categories: availability, costs and quality of provided services. The main reason (asked as an open-ended question) for dissatisfaction were combined into 4 categories: poor quality of the services, inappropriate behaviour of the staff, time consuming and high costs.

At first, satisfaction with FPP and referral systems was measured generally. In the next step, the satisfaction with the most recent medical service they used was measured. However, to respect the household’s privacy and to increase the participation rate, no specific question was asked about their medical problems.

The study protocol was reviewed and approved by the research ethics committee of Shiraz University of Medical Sciences. Verbal informed consent was obtained before the interview was performed. Stratified cluster random sampling was used as the sampling method. The sampling procedures were carried out separately in rural and urban areas. However, the final sample sizes for rural and urban areas were representative of the corresponding rural/urban population ratio in the study population.

The collected data and the level (and the reasons) of the user’s satisfaction with provided services were analysed using SPSS, version19, and the chi-squared test.

Results

The required information was collected from the final sample of participating families (763 urban and 798 rural). The registration rate with family physicians was about 83.9% in urban and 95.6%
in rural areas (P Table 1).

Among registered urban and rural families who used the FPP and referral system services, only 54.5% and 63.2% respectively reported being satisfied (totally satisfied or satisfied)