Community assessment for identification and prioritization of problems to establish health promotion operational plans

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Abstract
Community assessment is a process in which the active participation of community members develops strategies and programs to address the strengths and weaknesses of the community and prioritize and solve them. This study is aimed to assess society and determine its health priorities in order to establish operational plan to solve its problems with population participation. This research is based on the MPH training courses and North Carolina models that were conducted in two main phases: The first phase was a descriptive study. The second phase focused on target population's viewpoint by qualitative methods that were conducted by focus group discussions and individual in-depth interviews. The purpose of this step was to determine community problems priorities in order to reach data saturation by semi-structured interviews and group meetings with 80 members of urban population aged 15 to 65 years old. Extracted problems were prioritized using the Hanlon method. Improper disposal of sewage, urban sewage disposal, lack of recreational spaces and sports, stray dogs, narrow streets, lack of medical facilities in hospitals, forced and early marriages for girls, use non-native and disqualified managers, high prevalence of depression among the youth and lack of capital and natural resources were recognized as main problems in the studied society. Utilization of community assessment methods based on the problems recognition models in urban health system can be used as an effective tool in promoting community health through underlying weaknesses and strengths and leading capitals towards prioritized problems.

Keywords: Community, Health promotion, Health priorities

Introduction

The first step in designing an effective community services project is to identify strengths and weaknesses of that community. With expenditure of time on important community issues, new opportunities can be found for service projects and avoid duplication. The role of community assessment is to identify influential factors in population health and determine availability of resources within the community to correctly target those factors. Thus, with the help of community health representatives, occupations, healthcare system, private practitioners, and various educational centers, community can respond to fundamental questions like: What are the community's strong points? What concerns do community members have about their health?, and such like [1]. Today, there are a large number of

requests for prioritizing studies according to the importance of health-related subjects [2]. Since the funding is limited, it is necessary for the efficient research management to assign resources and funds to the problems with higher prevalence and more serious damage or harm to the community's health. Despite such expectations, less than 10% of the budget of all researches carried out in the world relates to the diseases and problems that cause 90% of all disease burden [3]. Assessment of healthcare needs has not been considered by healthcare fund providers in late 1980's and early 1990's. Then, it was officially implemented in England, Sweden, U.S., Australia, and New Zealand [4, 5]. Although different approaches are used in assessment of needs, and different methods are employed in every approach for acquiring necessary information, it is important to choose the right method/methods. It could therefore be asserted that different issues and objectives require different approaches and methods. Wright emphasizes that proper assessment of needs requires a combination of qualitative and quantitative research methods to collect data and use the information available [6, 7].

To achieve fundamental objectives, prioritizing research through needs assessment, that is, directing and allocating resources to the most important needs, attempting to establish justice, attending to the needs of vulnerable groups and reinforcing relationship between research, practice and policy, it is necessary that needs assessment process be designed and implemented in line with social and cultural conditions [8].

Implementation of community assessment plan has been defined as a factor that determines health status in the community and is used to prioritize community's problems that distance the community from current health standards. Community assessment is a prerequisite in determining community priorities. This process begins with collecting necessary community data and identifying priorities and dominant problems of the community, and ends with proposing control measures and eliminating the problem. That is because increased public health risk factors could be due to lack of recognizing priorities in the community. Priorities determination could be an effective and useful method in reforming control programs and health management in different communities [9, 10].

In modern civilization, public participation is regarded as the most important development strategy in civilization of different community sectors. In recent years, health authorities have been seeking ways to change the public's behavior, attitudes and beliefs through effective education, and creation of the Social Development and Health Promotion Centers is in line with this policy. In these centers, social development is realized along with health promotion, and amid the planned activities, local people take a step toward health, practice participation, accept responsibility, and understand that the key to solving a large proportion of health-related problems is in their own hands. The importance of this issue becomes more prominent in recognizing priority problems in the community and allocating funds to solve them, so that the optimum utilization of available means can be achieved. Since in today's societies with restricted funds and means, their fruitful and targeted use is more deeply felt [11].

In a study conducted in Kansas-U.S. through group interviews with local people aimed at needs assessment and health promotion, priority problems in the opinions of people and officials were identified and prioritized and appropriate solutions were established and handed over to the authorities [16]. In order to assess participation of the community in determining problems, a study was conducted in the United States during 2002-2003 in five stages with the aid of focused group discussions with local residents. With the use of matrix method, problems were prioritized and solutions provided [9]. A

similar study was conducted in Tehran and Shahinshahr-Isfahan with the aim to assess participation of people in identifying problems. A research team consisting of local people and university researchers performed assessment of needs and prioritized problems for creation of better and healthier life [12, 14]. This study aimed to determine the healthcare system's priorities of Azarshahr community, based on the apprenticeship model MPH of department of health, Tehran University of Medical Sciences and North Carolina model. In this model, the process of community assessment was performed in 8 stages for development of problem solving operational plans to empower people of Azarshahr to identify, prioritize, plan, and act to solve their problems.

Method

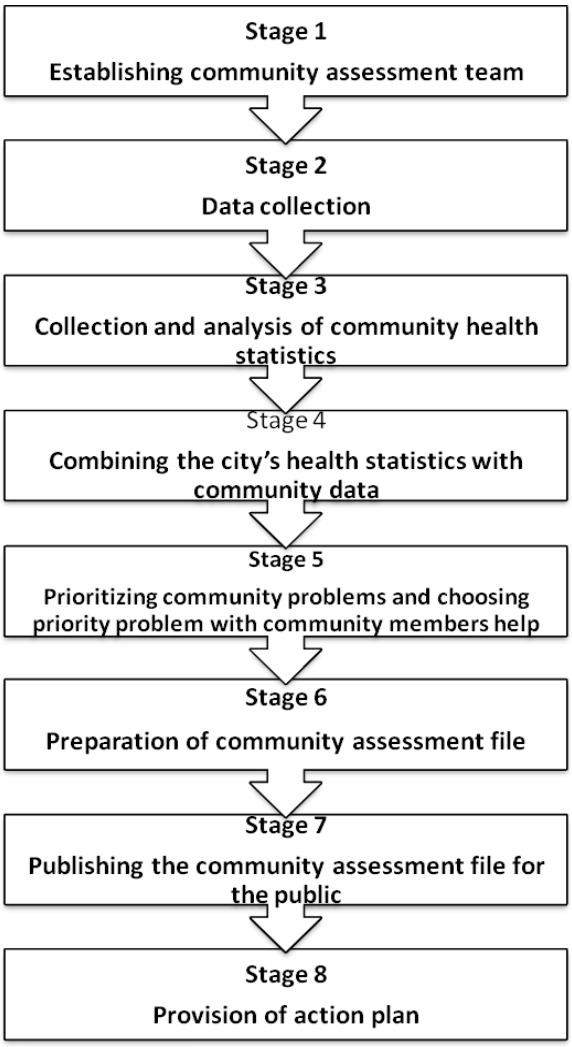
This study was conducted on the urban population of Azarshahr in 2011. For the community assessment and identification of priority problems, many different models have been used in the developed and developing societies. Methods used in this study are based on the North Carolina model and the tried and tested apprenticeship MPH model of Tehran University of Medical Sciences. In this model the process of community assessment is performed in 8 steps as follows:

Stage 1- The assessment team was formed. This team was responsible for the community assessment process and consisted of four epidemiology postgraduate students from Tehran University of Medical Sciences and four healthcare team members from healthcare network of Azarshahr. Members of the team must be sufficiently motivated to represent and act on behalf of a vast spectrum of the community, and to present concerns and needs of different groups within the community.

Stage 2- The community's data were directly collected by the team of assessors, so that opinions and concerns of people of the community regarding social, financial, health, and other problems of importance to people could be identified. Data were collected through presence amongst people, in two qualitative methods of in-depth interviews, and focused group discussion (FGD). The study statistical framework included resident families within the urban borders of Azrashahr, and those over 15 years of age (present at home at the time of questioning) were considered as statistical units. Sampling was carried out in the cluster form. With consultation of members of network healthcare team, the city of Azarshahr was divided into three regions of North, South, and Center, each region was divided into 4 clusters, and 7 homes were randomly selected from each cluster, and anyone over 15 years old present at home was interviewed. The focused group discussions were carried out with women groups in local mosques, men in the city parks, healthcare associates, and people attending the city council, education organization, and the Red Crescent Office. With the permission of participants, notes were taken simultaneously by a team member and read back to assure participants of their understood concepts. Qualitative data were collected until saturation, where continuation of interview was no longer required. To obtain additional information, face-to-face interviews were arranged with the health centers officials, practitioners working at these centers and private offices, staff technical units' experts of healthcare network, healthcare home officials, the mayor and the governor of the city.

Stage 3- In reality, the stage of collection and analysis of community health data are from the secondary data sources (healthcare centers). At this stage, the assessment team obtained the statistical population and the city's health indicators from the healthcare centers and compared them to the health indicators of the county center (under its supervision) so as to obtain a picture of what was occurring in the community, and ultimately determine the potential problems of the community.

Stage 4- The community assessment team reviewed details of the data obtained in the 2nd and 3rd stages and interpreted them, which led to the mapping out community assets and preparation of the community characteristics including demographic details, socio-economic factors, environmental factors, and status of the community health. Finally, the most important points of strength and problems of the community were identified and list of community problems was prepared.
Stage 5- After collecting the data, initial data analysis was carried out in qualitative analysis methods and encoded in accordance with the study objectives. Study themes were extracted by comparing the relationships among them. The primary and secondary data were combined using triangulation method, and the final list of problems was formed. To prioritize problems, Hanlon method was used. Hanlon forms were issued to team members and experts, so that, based on the items in this method including: magnitude, consequence, feasibility, and emergency of the problems, members could mark each of these items. The mean scores of items and mean of the members' scores for each item were calculated and finally, 10 of the problems with the highest mean scores were listed.
Stage 6- This was the community assessment blueprint preparation stage, in which assessment team prepared a report of the assessment process and findings, discussing the current status of health and specific objectives of each health priority.
Stage 7- The community assessment team handed the blueprint over to the community, so that people and authorities would be aware of the team's activities and the results obtained during the assessment process. Through publication of results, community members would become involved in the process, and with their help and consultation, solutions for problems may be planned.
Stage 8- In this last stage, the community assessment team prepared the action plans according to the priorities determined in the fifth stage. The necessary steps for implementing every intervention are explained in the action plans, and necessary resources from every community for intervention and confrontation with each health priority were determined, which will be implemented with cooperation and participation of relevant organizations.



Results

Based on the information in stage 1, characteristics of Azarshahr city was identified: the area covered in this study is located 50 km south-west of Tabriz, accessible by the Tabriz-Maragheh highway, and the Tabriz-Maraghe-Kordestan road in northwest of Iran.
Azarshehr has a population of 109490, with 29422 households. It has three boroughs, 5

suburb villages, 3 townships, and 37 villages. The common language of the city people is Azari. Based on the information in the comparison table, the city's health indicators in 2010 were 4.47% of newborns weighed less than 2500 g, 1.62% were under one year old, 7.85% were under 5 years old, 21.84% under 15 years old, 7.47% were over 64 years of age and delivery in hospitals 100%.

The results of the second stage, list of problems, are presented in table 1. People identified and recorded 59 problems in 8 categories of the youths, women, development (infrastructure), sports, health and nutrition, social security, culture, and employment (table 1).

Table 1- *list of problems identified by people of Azarshar-Tabriz, summer 2011*

Social problems	**Educational and cultural problems**	**Health and hygiene**	**Environmental health**	**Civil rights and civil services**
Drug use, openly in parks Overcharging Corruption at local government level Rural activities in the city Lack of jobs for women Poverty Not allowing women to participate in the society High addiction prevalence Increasing divorce rate Unemployment Large age gap between spouses Inadequate lighting in streets	Lack of recreational facilities Lack of specialized books and libraries Lack of appropriate and applied subjects at local universities Lack of non-governmental schools and smart kids schools Lack of facilities for the elderly Lack of suitable sports /exercise spaces	Presence of municipal waste on the streets Inadequate collection and disposal of municipal waste Lack of specialized physicians Lack of laboratory and diagnostic facilities Improper disposal of hospital and medical centers' waste Hospital distance from the city Having to travel to Tabriz for cesarean section deliveries Lack of fully equipped clinics Lack of adherence to sterilization principles by experimental dental hygienists Presence of litter in urban waterways	High rates of commuting motorcycles, causing traffic Inadequate monitoring of stores providing services Dilapidated town center square (Central Mosque square) Failure to attend to side streets Lack of pedestrian overpasses on congested routes, where students cross Inappropriate image of the city Lack of construction of roads compatible with traffic load Curs	Aberrant cultural and religious prejudices Lack of extra-curricular classes (computer, language, …) Intermittent support for farmers Lack of fruit and vegetable market Lack of pre-marital counseling centers Openly selling drugs on the streets Uncontrolled migration from rural areas Lack of observing civil rights by residents Insufficient parks and sports spaces Burnout passages Lack of media to convey problems of people Presence of repair garages in the city, and blockage of streets Urban wear structure Narrow streets, and lack of parking meters Lack of public shopping centers Lack of suitable inter-village routes

In order to prioritize problems, a meeting was held with members of the assessment team and influential residents of Azarshar. Using Hanlon method, priority problems were identified as follows: depression disorder and isolation among people, unsanitary disposal of municipal waste, sewage, forced marriages for girls, lack of recreational facilities, narrow city streets, curs, lack of exploitation of natural resources and mines for development of the city and medical facilities (Table 2).

Table 2- *List of priority problems in Azarshahr*

Rank	**Priority problem**	**Score of the problem based on mportance**
1	Depression disorder	**36**
2	Unemployment	**33.4**
3	Unsanitary collection and disposal of municipal waste	**29.3**
4	Unsanitary disposal of sewage	**27.6**
5	Forced marriages of girls	**27.2**
6	Lack of recreational and sports spaces	**25.4**
7	Narrow city streets	**23.8**
8	Curs in the city	**22**
9	Lack of utilization of natural resources and mines for development	**20.8**
10	Lack of medical facilities	**20.6**

Discussion

The present study shows that Azarshahr is faced with several problems in different areas. The aim of this study was to acquire a proper understanding of these problems and determine priorities of the city. In estimating priority problems with Hanlon method, the results showed that the problems are mainly focused on health issues, and improper disposal of municipal sewage and waste, lack of recreational and sports spaces, curs, narrow streets, lack of medical facilities in the hospital, forced and early marriages for girls, non-local and non-specialist managers (officials), high prevalence of depression among youths, non-utilization of natural resources and mines for city development, were the city's priority problems.

This and similar studies' results in Shahinshahr-Isfahan, Chahestani borough in Bandarabass, and Gonabad revealed that although there are similarities in problems of each community in the cultural, economic, social, recreational and educational domains, the problems within each domain is different in different communities, which may root in cultural, economic, and social differences in different communities. These differences, per se, are the reason for conducting needs assessment and identification of community problems by community members [13, 14, 15].

The method of conducting these types of studies roots in people's participation. This method was also used in the study on needs assessment for development and health promotion in Kansas-U.S. A development team, comprising a group of experts, influential locals, city officials, and all beneficiaries was formed, and organized in ten action work committees. In this study too, through interviewing groups of people, main problems of the community were prioritized and solutions established [16]. In this respect, the Community Care Council in the United States organized a project during 2002-2003 with five different lines of study. In this project, with the help of 8 Focused Group Discussions, problems of the community were identified, and using Matrix method, these problems were prioritized. Four main problems were in top priority, and with people's help were resolved and reported [16].

The general approach of these studies is active involvement of community in identifying their priority problems, and with collection of results and comparison with the city and county results, the reasons for existence of these problems can be found. By finding solutions within the community and identifying strong points, attempts can be made to resolve the priority problems. A study aiming to discover lifestyle and factors affecting it, along similar lines was conducted in Tehran. The general approach was assessment of community involvement, and the required information was collected through techniques and participation tools such as observation and interview. In this study, a research team consisting of residents of 17th municipal zone in Tehran and university researchers was formed. Through involvement in all study stages, people learned new knowledge and skills necessary for improving their quality of life in a responsible and committed manner, they also learned that with policy of participation based on empowerment, they were able to provide a better life for themselves and their families according to their needs and priorities [12, 17].

In the assessment carried out in Santa Cruise County, the overall aim of community assessment was improvement of quality of life of the residents, in which results obtained from primary and secondary data were exhibited in tabular and chart forms, so that the formation and solutions of problems could be identified. The process of data over the 12 years from 1995 to 2006, and also strengths and weaknesses were identified to pave the way for resolving problems [18].

Comparing results of this study with those of similar ones, we can conclude that there are differences and similarities between this and

other studies. That is, all the problems found, encapsulated a wide range of different domains, but there were differences in terms of types of problems, and this may be justified in accordance with the differences in cultural, economic, and social differences in each region. This distinguishes societies from one another with specific characteristics of each.

The problems found in this study in Azarshahr community cover different domains such as culture, economic, social, recreational and educational domains, and are not restricted to specific areas or subjects, indicating the extensiveness of problems in communities, which emphasizes the necessity for identification of priority problems in the community and communal planning for their solution.

Of important points in applying these results is identifying priority problems of communities through assessment of each community. Hence, in addition to preventing waste of funds, with participation of people and cooperation of authorities, action could be taken toward solving the problem that involves people. Identification of priority problem is not the only subject, funding for solving the main problem of the community (which may entail other problems) is also targeted.

One of the limitations in this study was lack of participation of women due to cultural restrictions, and another was, lack of participation of men, as they believed authorities are not interested in solving their problems, and therefore, these projects cannot be helpful.

Conclusion

Considering the experiences presented in this study, it is recommended that, given the vastness of the region and number of problems, needs assessment and determination of priorities of health should be repeated every two or three years. Glancing at the problems in Azarshahr, we can conclude that most problems are not related to health; rather they are cultural and social problems. This study as well as others has shown the usefulness of community assessment projects in identifying major problems of communities. As needs of every community is determined according to cultural, social and economic conditions in each community, for reforming health status, it is necessary to utilize active participation of people, and develop the path of health promotion by identifying and prioritizing problems of people of every region. It is imperative that results obtained in this study help authorities in solving problems faced by people and local officials, but are oblivious as to their roots.

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Contributions

Study design: K H-N

Data collection and analysis: M M, M BJ, A M, A JK

Manuscript preparation: K H-N

Conflict of interest

"The authors declare that they have no competing interests."

References

1- Anyanwu, C N. The technique of participatory research in community development. *Community Dev J*1988; 23(1): 11-5.

2- Ahmed AMA, Hirshon JM, El-Ghazali SMS, et al. Assessment of injury related morbidity, mortality and disability adjusted life years (DALYs) in Cairo, Egypt. *Inj Prev*2010; 16: 54. [In Persian]

3- Anthony J. Billittier IV. Community health assessment. Erie county, New York: 2011.

4- Jordan J, Dowswell T, Harrison S, Lilford RJ, Mort M. Health needs assessment. whose priorities? Listening to users and the public. *BMJ* 1998; 316(7145): 1668-70.
5- Qayum M, Anwar S, Raza UA, et al. Assessment of health services on relevant primary health care principles in internally displaced people of pakistan based on sphere standards and indicators. *J Coll Physicians Surg Pak*2011; 21(5): 315-6.
6- Koller M, Blanchfield K, Vavra T, Andrusyk J, Altier M. Assessing and meeting the health needs of roman catholic priests in the archdiocese of Chicago. *J Prev Interv Community*2012; 40(3): 219-32.
7- Beyene W, Jira C, Sudhakar M. Assessment of quality of health care in jimma zone, southwest ethiopia. *Ethiop J Health Sci*2011; 21(1): 49-58.
8- Lee JS, Frongillo EA. Understanding needs is important for assessing the impact of food assistance program participation on nutritional and health status in U.S. elderly persons. *J Nutr* 2001; 131(3): 765-73.
9- Johnson C.V, Bartgisi J, Worley J A, Hellmen C M, Burkhart R. Urban Indian voices: A community based participatory research health and needs assessment. *American Indian Alaska Native Mental Health Research*2010; 17(1):49-70.
10- Akinci F, Mollahaliloglu S, Gursoz H, Ogucu F. Assessment of the Turkish health care system reforms: A stakeholder analysis. *Health Policy*2012; 107(1): 21-30.
11- Ray SK, Basu SS, Basu AK. An assessment of rural health care delivery system in some areas of west Bengal-an overview. *Indian J Public Health*2011; 55(2): 70-80.
12- Jahangiri K, Fatta pour M, Holakouie Naeini K, et al. Community assessment for identifying existing problems of region 17 of Tehran. *Social Welfare Quarterly*2003; 3(9): 133-141.[In Persian]
13- Delshad A, Salari H, Khajavi A, et al. Certifying of the society felt needs based on community as partner model in Gonabad population lab boundaries. *Ofoghe-E-Danesh*2004; 10(4):15-22. [In Persian]
14- Karimi j, Holakouie Naeini K, Ahmadnejad E. Community assessment to establish operational program for health promotion in Isfahan`s Shahin Shahr. *Iranian Journal* of *Epidemiology*2012; 8(1): 21-30. [In Persian]
15- Mohammadi Y, Javaheri M, Mounesian L, et al. Community assessment for identification of problems in chahestani region of Bandar-Abbas city. *Journal of Public Health and Institute of Health Research*2010; 8(1): 21-30. [In Persian]
16- Bopp M, Fallon EA, Bolton DJ, et al. Conducting a hispanic health needs assessment in rural kansas: Building the foundation for community action. *Eval Program Plann*2012; 35(4): 453-60.
17- Tajvar M, Arab M, Montazeri A. Determinants of health-related quality of life in elderly in Tehran, Iran. *BMC Public Health*2008: 22; 8.
18- Zachary D, Brutschy S, West S, Keenan T, Stevens A. Connecting data to action: How the santa cruz county community assessment project contributes to better outcomes for youth. *Appl Res Qual Life*2010; 5(4): 287-308.