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Socio-cultural, environmental and health challenges facing women and children living near the borders between Afghanistan, Iran and Pakistan (AIP region)

Iraj M. Poureslami^{1,2}, David R. MacLean⁴, Jerry Spiegel³, Annalee Yassi²

Abstract

For hundreds of years, people in the AIP region (the Afghanistan-Iran-Pakistan borders) have been challenged by conflict and political and civil instability, mass displacement, human rights abuses, drought and famine. Given this sad history, it not surprising that in this region health and quality of life of vulnerable groups are among the worst in the world. In spite of national and international efforts to improve health status of vulnerable populations in this region, the key underlying socio-cultural determinants of health and disparities, i.e. gender, language, ethnicity, residential status, and socio-economic status (SES), have not been addressed or even systematically studied, nor have their relationship to environmental challenges. Overall, the health problems faced by this under-developed region can be categorized into those resulting from lack of essential supplies and services, as well as those stemming from the existing cultural practices in the area.

Key Words: Afghanistan, Iran, Pakistan, health

Introduction

Current thinking in public health has moved beyond the physical, biological, behavioral, and environmental causes of disease to embrace the relationships between health and social context: i.e., poverty, gender, culture and ethnicity.¹⁻⁶ Social, political, economic, cultural, and environmental factors are important in understanding community health status, and in demonstrating often underlying health disparities among different sub-populations.⁷⁻⁹ To date, knowledge of such health determinants and disparities mainly reflects the interactions of socio-economic factors and health in developed countries, and may not necessarily be reflective of these in less-developed nations,^{7,10,11} as interventions using such knowledge have not been extensively studied in developing countries and particularly in highly vulnerable communities within these countries.¹²⁻¹⁴ Moreover, information that is available, both from within and outside the health sector, is often not effectively utilized.^{2,4,5,7,8,15} These gaps in knowledge are themselves a reflection of the broader “10-90 gap” wherein 90% of the world’s health research dollars are devoted to 10% of the burden of disease in more developed countries.¹⁵⁻¹⁷

With increasing globalization has come the increased recognition of the importance of addressing health disparities globally,¹⁷ as evident in the report of the Commission on Macroeconomics and Health.¹⁶ Following a widespread decline in institutional commitments and funding for development and research into correcting global health disparities in the 1990s, positive developments have been emerging. A particularly encouraging step in this regard has been the Global Health Research Initiative in Canada, whereby the Canadian Institutes of Health Research (CIHR), the International Development Research Centre (IDRC), the Canadian International Development Agency (CIDA) and Health Canada have agreed to a strengthened and coordinated funding of health research into correcting global health disparities.¹⁷ Thus, in preparation of a proposal to the Canadian global health funding agencies for implementation and evaluation of an evidence-based intervention, we reviewed current health literature, official documents, and other information (e.g. UN agencies reports) related to the social, cultural and environmental factors that may influence the health outcomes of subpopulations living in the

AIP region, as well as interviewed individuals who had recently worked in this area.

The objectives of this article are to summarize existing information regarding the socio-cultural, environmental and traditional determinants of health disparities among different populations groups in the AIP region; identify the gaps in relevant research regarding the communities' needs in the region; and highlight factors of importance in developing future health intervention studies in the region.

Methods

This study included a review of relevant literature (Medline, social science index, PubMed, Eric database, etc.); governmental and health officials' documents and reports from three countries (Afghanistan, Iran, and Pakistan); and review of the UN agencies' (i.e. UNICEF, WHO, UNESCO, FAO, UNFPA, Human Rights, and World Bank) weekly, monthly, and annual reports and documents. Particular effort was made to collect information related to socio-cultural, environmental, and health issues of people, particularly women and children, who live along the borders of the AIP region. In addition, we reviewed the most recent health statistics and information reported by health officials in each of the three countries. These documents and data were obtained directly from the Ministry of Health of Afghanistan, Iran, and Pakistan, or through searching their websites. Several Canadian researchers and health workers who have recently returned from working in this area were also interviewed. Our local academic colleagues, researchers, and community partners working in Afghanistan, Iran, and Pakistan were also asked to provide up-to-date information in terms of women and children's health status by fax, mail, or e-mails.

Findings

The findings of this study show that people who live along the borders between Afghanistan, Iran, and Pakistan have the highest burden of most preventable diseases in South Asia.¹⁸⁻²⁰ This is commonly assumed to be associated with many different factors, from an unusually large number of uprooted people in the region (i.e. refugees from Afghanistan, migrants from Pakistan, and Iranian farmers fleeing villages ravaged by unprecedented drought), to the behavioral patterns and traditional practices in the region, to the rapidly deteriorating environmental conditions leading to internal immigration from rural areas to urban centers.²¹⁻²⁶ Federal, provincial, and local government have devoted substantial efforts to improve the health and well being of people in the region^{18,20,23} and there has been considerable activity in the region by local non-government organizations (NGOs) and international agencies [AY5].^{24,25,27,28} Despite these efforts, which are mainly in forms of disaster response and symptom-relief,²⁸ marginal progress has been reported in the past three decades in terms of reduced disparities in health.^{25,26,29} This may in part be related to the fact that there are few examples, if any, of interdisciplinary, community-participatory studies identifying non-medical determinants of women and children's health status in the AIP region.^{26, 30,31} Some of the specific findings of this study are summarized exclusively in the following sections.

Geographic and linguistic profile

As shown in Picture 1, the three countries of the AIP region share a long border (approximately 1500 kilometers) along which people share similar cultures, language, and customs.^{25,28} This region is home to approximately 4 million people, of whom 1.5 million are Afghani, 2 million are Iranian, and 500,000 people are Pakistani.^{21,28} The border provinces include Harat, Farah and NimRoos in Afghanistan; Sistan-and-Baluchestan and southeast

Khorasan in Iran; and Baluchistan in Pakistan.²⁸

The region has two main local languages (Baluchi and Dari), shared across the national borders.^{32,33} Baluchi is a modern Iranian language of the Indo-Iranian group of the Indo-European language family.³² Baluchi speakers live mainly in an area now composed of parts of southeastern Iran and southwestern Pakistan, once the historic region of Baluchistan. They also live in Central Asia and southwestern Afghanistan. It is estimated that over six million people communicate in Baluchi today.²⁸

The other common language is Dari,³³ the Afghan dialect of Farsi (Persian) and of the Iranian branch of the Indo-Iranian family of languages. It is written in a modified Arabic alphabet, and it has many Arabic and Persian loanwords. Over two million people in the borders of Iran, Afghanistan, and Pakistan speak Dari today.²⁸

There have been some attempts, particularly by international agencies and NGOs, to modify individuals' attitudes and behaviors, using the official languages of Farsi, Pashto, and Punjabi.^{23,26,28} The problem identified by many researchers was that health education materials and schoolbooks provided by these agencies are based on official languages in each of the three countries,^{34,35,36} while most people, particularly women, communicate in either Baluchi or Dari,³⁴ such that their limited knowledge of the official languages and low literacy levels may be a barrier in communicating health issues with them effectively. This has an immediate impact on their own and their families' health, particularly children's quality of life, as it is the women who mostly visit health clinics and health houses alongside their children to receive primary care services or attend health education classes.^{37,38}

Effectiveness of Health education materials provided in the region

Despite a long history of providing health education, as stated before, because of using unfamiliar languages to provide educational materials and also the low literacy levels of people, these efforts have not been successful.^{34,37,39} There are some reasons for observing little progress in spite of recent national and international efforts in the region in terms of behavioral and attitudinal changes. Among them are: 1) most international NGOs deal with disaster relief and humanitarian aid activities,^{28,38,40} rather than addressing real needs of communities. 2) These NGOs are worked under the control of central governments in the involved countries, although they are independent international agencies.^{24,25,34} In this region, the central governments historically ignored local communicating languages for many years due to political, social, and economical issues.^{28,41-43} These rules and mandates influenced the international NGOs' activities as well. 3) Most often health education materials are produced by local health departments funded by an international NGO.^{10,44} These government-run facilities should fulfill the central governments' mandates and rules about producing health materials in official languages.^{29,37} 4) Participatory programs are not a policy of choice nor practiced by local and central governments.^{34,45} 5) Iran plays a dominate rule in providing health services in the region,^{25,28} and they mainly produce health education materials in Farsi. 6) In the best case of scenario, the major goal of International NGOs is to ensure that local schools stay open, and to provide equal opportunity to schooling for boys and girls.^{19,24,26} While providing basic education is still a major challenge for AIP region,^{29,34} no attempts are made to provide adult education for older family members in the community.^{26,28,45} By law, the language of school system is the official language communicated in each of the three countries, and thereby health education materials are also produced in official languages.⁴⁵ 7) Most local women's literacy levels are low and have limited capacity to receive proper training by an international NGO.^{28,38} Therefore, non-local volunteers or paid staffs take charge of educating local communities and producing health education materials, which in most

cases are developed in official languages.

Perhaps one of the most important problems of language-fit by international NGOs is the short lifetime staying in the region, as well as the costs of learning new languages by their staffs.^{38,45} The short stays not allowing them to learn and communicate effectively the local languages or train and involve local women in their programs.⁴⁵ Some of the staff of an international aid agency in the border between Afghanistan and Iran who were interviewed recently by the authors indicated that although there was so uncomfortable, the shower leaks, the generator is noisy etc, but Dari was quite easy to learn, and a few sentences or greetings helped them to win many hearts, both at work and in the street. The most challenging part of their stays in the region, as they indicated was failure to communicate properly with people, particularly with women, who traditionally not allowed contacting with foreigners, in particular with men.⁴⁶

The lack of progress in the region might be also related to the international NGOs failure to contribute effectively into the region's development, although most foreign agencies or international NGOs state that they are there to make a difference and to help the marginalized people.⁴⁵ Local people and community leaders, however, believe that these agencies are not there to learn about the culture or people of the region and to apply their new knowledge into their programs. But, they are there to complete their projects, tasks and mission!²⁸ The corruption and nepotism within some aid agencies in the region^{28,45} have also added to these beliefs. In addition, the magnitude of inequalities in the region^{42,43} and the inability of international agencies to do anything concrete about it⁴⁵ is another reason for such attitudes against foreigners by local community.

Environmental issues in the region

Water supply is a major challenge in the region, due to five consecutive years of drought, dry lands, and lack of natural water resources.^{21,45,47} This is a problem particularly affecting women, as they are mainly responsible for collecting and providing clean water for the family.^{43,46,48} Sometimes they have to travel for kilometers and/or stand in daylong lines to obtain clean-drinkable water.^{47,49} The only natural waterway in the border region of Iran and Afghanistan is the 'Hillman River'. Its flow to the border area was blocked from the Afghanistan shore during the Taliban era.^{21,47} This blockage has caused tremendous environmental and climate changes in the region, specifically in the provinces of Sistan-and-Baluchestan in Iran, and NimRoos and Farah in Afghanistan.^{21,28,47} There is no other natural waterway between Iran and Pakistan or between Afghanistan and Pakistan borders. Due to lack of adequate water resources and also traditional unhygienic practices among different population groups in the region, i.e. using open fields for sanitation and cooking habits,⁵⁰ the sanitation improvement programs developed by health officials and international NGOs have had limited success.⁴⁵

Population Health Status in the Region

In general, almost all reviewed reports and documents demonstrated that women and children are the most vulnerable populations in the AIP borders.^{18,23-25,30,31,39,40} As we can see from table 1, maternal and infant mortality rates are high, especially among Afghani refugees.^{36,41,51,52} Many studies have linked these problems to lack of maternal and childcare, as well as inadequate first level referral centers in the region.⁵¹⁻⁵³ Of the three countries, Iran has the lowest infant mortality rate (IMR) and under-five mortality rates (U5MR), peaking at 35 and 46 per 1000 live births, respectively.^{31,54} In Pakistan, a country where the status of children is terribly low- especially for female children- the IMR is 84 per 1000 live births and the U5MR is 109 per 1000.¹⁸ The situation in Afghanistan is even more alarming, with an IMR of 165 and a

U5MR that soars to 257.^{25,30,52,55} The statistics for these individual countries, however, do not compare to the dire state of the AIP region, where one-fourth of children die within their first year, and half die before the age of five, mainly due to respiratory tract infections and severe diarrhea caused by the existence of chronic malnutrition.^{28,45} UNICEF, UNFPA, and UNESCO have conducted different need assessments in the AIP region, and report excess mortality and morbidity rates among children who live with their parents at the border areas, particularly among female children.^{19,24,25,37,38,56}

Food security, literacy, socio-cultural and gender issues in the region

Food Security: The UN Food and Agricultural Organization (FAO) has established a food and nutrition monitoring system in South Asia, and has identified Iran, Pakistan and Afghanistan as having moderate to severe undernourishment, stunting, and wasting among children under the age of five, specifically among females.⁴⁰ In a recent report, the UN stated that "... in times of diminished food resources, girls and their mothers are often last to be fed, resulting in a diet low in calories and protein."⁵⁶ Food insecurity and health threats are likely to increase even further in designated camps for refugees.^{28,36} In most refugee camps in the region, old women and young girls as well as families whose males have died or injured in war or conflicts have further problems due to discriminatory attitudes and ignorance.^{28,45}

Literacy: In this region, males are more likely to attend schools, while females have limited access, specifically to high school and post-secondary education.^{25,38} Many governmental and non-governmental documents indicate that; "most children had dropped out, because there were no schools, or they were too far away."^{25,45} There are a number of reasons why hundred of thousands children in AIP region would continue to miss out on education, including difficulties getting to schools, a lack of teachers, and families feeling that it is more beneficial for their children to work than go to school.^{23,36,38,56} One major reason for keeping girls out of school is remaining conservative opposition at home and in community towards females attending classes.⁵⁷ Oxfam's study in year 2001 indicates that more than 85% of the Afghani women have never been to school, and in other reports, only 5 to 10% of studied Afghan women and girls could read or write.³⁹ Given this scenario, literacy in the region is poor and female literacy, in particular, needs extraordinary efforts to improve.^{37,57} Even among educated women, there is discrimination against females in employment and wages, and acts of harassment occur even in more developed urban areas.^{28,42, 43,49} Overall, the priority for hiring and promotion is mainly given to males, even in the face of equal educational and experience qualifications.^{43,49}

Religion: The dominant religion practiced in the area is Islam, which is associated with gender-specific beliefs and customs.^{25,42} Examples cited in the documents reviewed include issues of gender inequality; lack of access to education, particularly for girls; traditional health practices; and marriage customs.^{43,48,49,58-61} In general, the status of women and children, particularly girls, in the AIP region is significantly worse than that of men and boys.^{41,45,55} In most cases, men have the dominant role in governing the communities, both politically and socially.^{42,43} And there is a largely under-realized potential capability among women in the region to take charge of community activities, including environmental and health-related issues.^{48,49} Women have the dominant role in feeding the family (purchasing, handling and preparing foods), water collection, and taking care of elders and children's health.^{28,45} They participate in health-related meetings and classes, e.g. family planning and health education, alongside their young children.^{28,36} Priority in most cases is given to boys, e.g. high nutrient foods, the better place to sleep, better clothing, higher emotional support, etc.^{43,56}

Human rights: Young girls have little authority to select their own husbands: the senior male family member (father, brother, or grandfather) selects a spouse, with different political, economical, and tribal affiliations taken into consideration.^{42,49,60} Family and tribal intermarriage is very common, which may lead to different genetic and family-related health problems.^{25,28} Only men have the right to divorce, and are allowed more than one wife.^{34,43} This has led to many suicide attempts among young women who have no other choice to end their unwanted marriage.³⁴ Discriminatory cultural-behavioral practices at home and in the community have caused severe developmental health and social disparities between children and adults, between males and females, and between boys and girls in the AIP region.^{28,43,60} Overall, the low health status of people, particularly women and children, in the AIP region as the official reports and other documents revealed is associated with poor hygiene, low literacy, and lack of access to healthcare services, cultural and traditional practices, stereotyping and discriminatory attitudes, and environmental concerns.^{28,36,48, 51,53}

In spite of local and international efforts to improve the status of women and children in this area, and a general concern for their education, health, and quality of life, marginal improvement has been reported in the past decades in terms of reduced gender inequalities and health and social disparities.^{34,42,43,53} To compound the problem of identifying effective strategies is that there appears to be wide gaps between the statistics provided by health officials in the region and the real health needs of the sub- populations.

Discussion

As a result of the chaos of decades of warfare mass displacement, human rights abuses, drought, and famine, and the consequent neglect of public health functions, Afghanistan has become a reservoir for infectious diseases such as malaria, polio, cholera, and tuberculosis.^{23,25,28,45} These diseases are not only debilitating the resident population, they are also exported to neighboring countries and can trigger epidemics, especially when introduced into areas with limited medical resources.

Iran and Pakistan shelter an estimated 2 million Afghan refugees in their border provinces.^{28,36,38} Some refugees have settled permanently in this region and are living in conditions comparable to the local residents.²⁸ In general, the more recent arrivals live in more stressful conditions until they get established.^{28,36}

Though health care is universal and provided without charge in Iran and Pakistan, the medical infrastructure in the areas with the largest numbers of refugees is less dense than in other parts of these two countries, which means that fewer resources can be devoted to screening and treating newcomers.²⁸ In addition, since many of the refugees are unaware of available services and even of the microbial nature of infectious disease (due to low literacy levels),³⁶ health care seeking and usage are disproportionately low in this population. Simply looking at the records kept by regional health clinics, the burdens of excess morbidity and mortality from preventable diseases could be identified among refugees. In spite of marginal improvement of women's health status that has been reported recently in the region, far less has been achieved with respect to overall gender equality. There are reports indicating even a decline in women's health with regard to autonomy, workload, illiteracy, nutrition, and disease prevalence, particularly among Afghani women. Heavy workload at home, lack of access to adequate health services, poverty, traditional practices, poor social status and decision-making power, and lack of access to education are among the highly prevalent socio-cultural factors that potentially affect the health of women. This can be attributed to specific characteristics of this region, such as long-term drought, suppression of women's rights, an influx of refugees and immigrants, lack of adequate

resources, traditional beliefs and customs, and a general lack of attention to health services from the local and federal governments of the three countries. The health problems faced by this under-developed region can be categorized into those resulting from lack of essential supplies and social services, as well as those stemming from the existing behavioral and traditional practices in the area.

Many of these customs and traditional practices have been rooted in the culture and religion of people, which have considerably influenced the health and quality of life of women and children and caused the considerable disparities related to health and social status between men and women and boys and girls in the region. In fact, in the AIP borders, females face a variety of health-related problems, and are often neither seen nor heard, despite their extraordinary contributions to the health and well being of the family. The multiple responsibilities of women and young girls at home, and their social isolation and lack of support at home and in the community (absence of a supportive environment), can lead to physical decline and increased emotional and mental strain.³⁴

Because of the similar cultural, religious, and traditional practices among people in the AIP region, some studies indicate that one of the best ways to reach and assist these vulnerable populations, especially women and children, in the long run is the social, economical, and political empowerment of women in the border areas.⁴⁵ In addition, female health care providers working in NGOs such as Red Crescent Society (ARCS) and rural “health houses” have been identified by many investigators as a useful way to communicate and provide basic and health literacy in the region of interest.³⁸ However, it seems the language-related problems would have been under-solved, unless the more familiar languages communicating in the region been used in the development of basic education and health information materials.

Essential supplies that are inadequately delivered to the AIP area include proper nutrition, clean water, contraceptives, immunization, essential medications, and simple therapeutic devices, such as those for oral rehydration and minerals. Furthermore, many children in the region are suffering from night blindness, a symptom of malnutrition common among poor populations, yet preventable by vitamin A supplements. Essential services that are lacking include maternal and mental health care, civil rights protection, social work services, proper transportation in emergencies, and schooling facilities for females. These supplies and services need to be provided by the provincial and federal governments of the three involved countries, as well as by the local and international NGOs to meet the basic health needs of the people in the region.

UNICEF and UNFPA have developed different projects to alleviate the burden of night blindness among children, and to improve women health status in the region. FAO has also conducted many studies to improve the nutritional status of children in the region. In addition, World Bank has developed projects in the past two decades to improve the water supplies and sanitation practices in this area. In spite of these and other efforts, there have been fewer attempts to assess the non-medical determinants of health issues, and no study has been reported to examine the impacts of the underlying factors on population health outcomes.

As the factors influencing the health of vulnerable populations are multiple and complex, a holistic and interdisciplinary approach is needed. The efforts should emphasize enhancing women’s access to health care and education, improving their socio-political status, fundamental changes and adaptations in the region’s cultural and traditional practices, and employing mechanisms to alleviate poverty generating activities.

Communities in the AIP region need programs to provide emergency relief, education for all, easy access to primary health care and social services, and empowering capacity through numerous efforts. Although these programs are urgent, there is still a need to refocus local and

international efforts to promote gender equality and long-term sustainable development and environmental improvements.

Conclusion

Government officials, international agencies and NGOs in the three countries involved are investing considerable efforts to improve the health and well-being of people in the marginalized communities in the AIP border area. Little progress, however, has been observed so far regarding improvements in gender equality and reducing health and social disparities in particularly vulnerable sub-populations living in this disadvantaged region.

There is a need to study the impacts of underlying socio-cultural and environmental determinants, i.e. gender, language, ethnicity, residential status, and socio-economic status (SES), on sub-populations social and health disparities in the AIP region, in order to better design sustainable and effective programs.

Some conclusions and recommendations emerged from our review to help design future health interventions in this region. Broadly speaking, the objectives of programs aiming to improve the health and social status of vulnerable groups in this region should fall into the following four categories:

Health Care: establishing and operating affordable primary and emergency health care services, accessible by vulnerable people, primarily women and children. This will minimize the burden of morbidity and mortality from both communicable and non-communicable diseases among marginalized populations.

Education and Empowerment: supporting school and other literacy programs for all, particularly for women and young girls, to reduce illiteracy in the region. This would empower young women to build sustainable livelihoods and could narrow the gender inequality in the region.

Awareness: conducting local campaigns and forums to build community capacity and to increase public awareness on community health, human rights, and relevant issues. More familiar and appropriate language(s) and culturally sensitive and accepted methods must be applied.

Sustainable Development: planning and conducting longer-term programs to build and strengthen the community infrastructure in the region. Addressing the impacts of the environmental, social, economical, and cultural determinants of health would facilitate community development in the region. Particular attention should be paid to the factors effecting women and children's health and the traditional practices that may promote gender inequality in terms of health, education, wealth, and decision-making.

In conclusion, the people in the AIP borders need health care services and culturally appropriate awareness campaigns to improve women and children's health and programs to help children, especially young girls, to find new opportunities for education. More research is needed to determine and measure the impacts of underlying cultural and traditional factors that can be modified to promote the empowerment of women and facilitate sustainable changes needed to support health.

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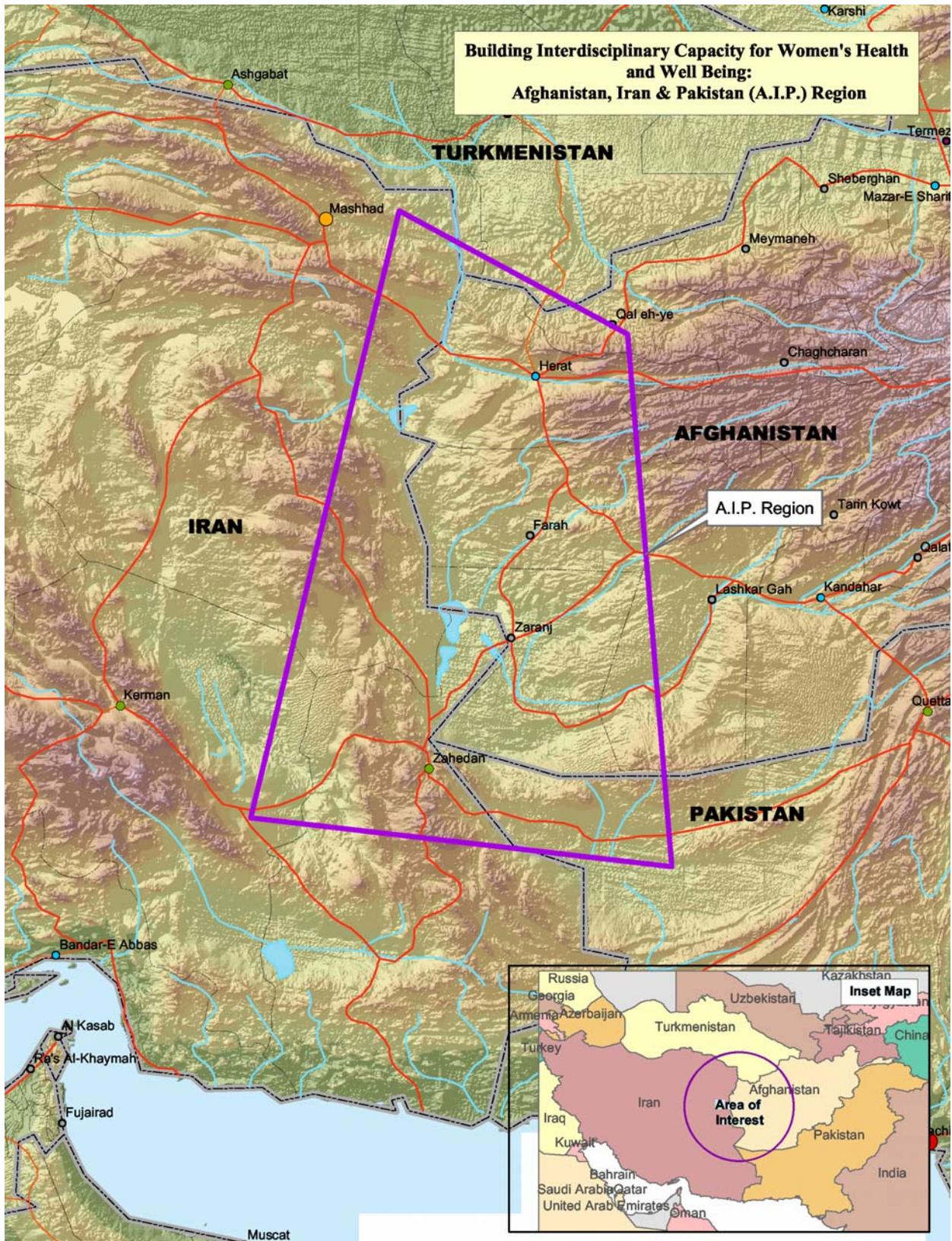
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Table 1. Selected Health Data in the AIP region and Surrounded Countries

	AIP	Afghanistan	Iran	Pakistan
Maternal mortality ratio per 100,000 live birth	520-560	1900	76	500
Infant mortality per 1000 live birth	250	165	35	84
Under 5 mortality per 1000 live birth	500	257	46	109

Source: UN agencies' reports, 2000.



Picture 1: The AIP region-South Asia

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