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WOMEN'S HOSPITAL

CASES IN GLOBAL HEALTH DELIVERY

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Scaling up Iran's Triangular Clinic

This case is a sequel to "Iran's Triangular Clinic."

In 2002 Dr. Farshad Farzadfar, chairman of Iran's subcommittee for integration, began working on a plan to scale up the Triangular Clinic's model for treatment of sexually transmitted infections (STI), HIV/AIDS care, and harm reduction nationally by integrating it with the nation's primary care network. Though the prevalence of HIV was less than 0.1% among the adult population, with only 20,000 cases reported, there was potential for rapid spread. Eighty percent of all cases had occurred among injection drug users (IDU); there were 170,000 IDU in the country; and, prevalence was 15–20% within that group. Plus, since there was limited surveillance—only 70 sentinel surveillance sites located primarily in prisons—many thought current disease estimates were too low.

Farzadfar worked hard to help lay the groundwork for spreading the successful Triangle Clinic model nationally. By October 2003, there were more than 21 Triangular Clinics operating throughout the country and more than 20 in prisons.¹ In 2005 the World Health Organization (WHO) commissioned a report on Iran's progress that revealed unforeseen challenges and dragging momentum. Soon after, Iran received funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria.²

Making a Plan

To lay the groundwork for replicating the Triangular Clinic model, Farzadfar spent two weeks in the original Triangular Clinic to figure out how it worked. The first week he spent time asking staff to describe their activities in detail, and the second week he spent "observing the flow of service provision. I watched how long each patient took with the doctors, participated in their consultations, and listened to how they were, and how they described problems, and how the doctors tried to help solve the problems," Farzadfar explained. Farzadfar explained the reasoning behind his approach:

More than 25 years ago, we established primary health care with health houses, the rural health centers, and it worked very well for family planning, maternal and child health...People thought we could use this

Julie Rosenberg Talbot and Joseph Rhatigan prepared this case for the purposes of classroom discussion rather than to illustrate either effective or ineffective health care delivery practice.

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program for other kinds of diseases. So that's where the idea [of integration] came from. After that, everyone running a special disease program tried to integrate their program because it provided a lot of money and human resources to develop the program in the country. But, there were no standards for integration. It was based on the judgment of the committee. When I came to the Ministry of Health, I wanted to standardize integration.

Farzadfar created detailed tables to break down the program offerings. One table listed all 228 services offered to clients with a column indicating whether the Ministry of Health provided the service or an outside organization such as a nonprofit organization or other provider (see **Exhibit 1** for example of table). Farzadfar listed the 54 intersectoral activities separately and indicated the office or unit that would be responsible for each within the Ministry of Health, the level at which it was coordinated, and the organization with which to coordinate. Intrasectoral activities were listed in yet another table with a column indicating what type of care (primary, secondary, or tertiary) was involved, the national-level unit related to the activity, the provincial-level unit, the district-level unit, the provider, and the target group. He looked at the time each Triangular Clinic staff member spent on each activity per patient, the number of patients who used the service, the average time spent on each activity per year, and the knowledge and skills needed to provide the service. Finally, there were tables for each level of health facility—health houses, rural health centers, urban health posts, and urban health centers—that allocated the original activities of the Triangular Clinic and described the time needed to provide each service, the number of people who would need the service, the average time spent on the activity per year, and the necessary skills for provision. Breaking down the tasks of the Triangular Clinic and redistributing them throughout the primary care system, Farzadfar was able to assess how much time each provider in each location would have to dedicate to the new offerings, determine whether new staff was needed, and assess what kinds of training would have to take place. As he said:

We made sure that the time that people spent with patients in the Triangular Clinic wasn't lost when the duties were transferred...For example, each set of *Behvraz* [community health workers] has to spend 3890 minutes for HIV/AIDS care per year to complete the 13 activities that they are responsible for. For these 13 activities, on average, in each health house, each *Behvraz* would have to spend 1945 minutes per year, and that's about only 1.72% of their time...We wanted to know if we integrated HIV/AIDS care into the primary care system, would we need more people? Here we saw we would not because we looked at their free time too. Then we did a similar breakdown for the physicians. We saw they have 19 activities, and it takes almost 3741 minutes per year for each physician. It's about 3.43% of their total time. We looked at whether we needed to add more physicians...We saw that we would need to add one per Triangular Clinic. We added almost 300 physicians throughout the country because we have almost 300 districts.

Farzadfar finalized a flow chart of care and services for an individual to ensure that care would continue to be streamlined and well coordinated. "It's a reengineering," he explained.

Progress Report

The original Triangular Clinic in Kermanshsh province, by August 2005, had provided 49,368 counseling sessions, of which 888 were for new HIV-positive patients and 3699 were for patients' families. It provided 253,758 syringes and 177,691 condoms. Among the 773 patients who had CD4 counts measured, 29 received antiretroviral therapy (ART). Four pregnant women and 72 health staff who were stuck by needles received four weeks of prophylaxis as did six women who had unsafe sex with their husbands.³ The Triangular Clinic work made an impact. Among 191 married men who were regular clients, 95 of their partners were not yet infected; 17 partners were infected before their first visit to the center. Two female clients were pregnant.

Nationally, in 2004 the Ministry of Health and Medical Education's Office of Substance Abuse Prevention and Treatment began integrating substance abuse programs into the primary care system that relied on *behtarz*, community health workers. A pilot project in Northwestern Iran confirmed the importance of *behtarz* in expanding the harm reduction program. The study looked at *behtarz*-facilitated abstinence only and harm reduction programs. *Behtarz* accompanied clients to a general practitioner at the clinic who determined whether to administer abstinence-based programs (primarily for those with no history of IDU) or HIV testing and/or harm reduction (for those with a history of IDU) using a clinical decision tree. Both options involved one-on-one counseling weekly for a month followed by monthly counseling for six months; those in the harm reduction group received clean needles as well. Counseling cost clients a minimal amount, but the needles were free. There was no medication used. The physicians referred some patients for testing at the District Transfusion Center. Of the 478 people who enrolled in the program between 2004 and 2005, all were heroin or opium users, and 71% were HIV infected. Completion of the abstinence only program was 4%, but the completion rate for those who received needle exchange services and condoms was much higher.⁹

That same year, the WHO commissioned a report to examine national progress in harm reduction in Iran and issues in scale up. Though there were 73 facilities offering Triangular Clinic services in the communities and more than 50 in the prisons, the report found some were located inconveniently, far from areas of drug use or inside government buildings.⁴ The consultants did not find evidence of staff doing outreach in the areas where IDU lived and believed the lack of outreach may have explained why there was little usage of the needle exchange program. One facility had distributed needles and syringes to only two clients over the course of almost a year.⁴

An estimated 1700 IDUs in the community and 1750 IDUs in the prisons received methadone treatment. Most efforts were focused in Tehran. There was little in place to help prisoners released into the community sustain their treatment, however, and the national coverage of methadone maintenance in Iran was less than 5%.^{4, 5}

While other sources of drug abuse and harm reduction programs had emerged—including governmental, private, and nonprofit drop-in centers, needle-syringe exchange programs, voluntary counseling and testing (VCT) centers, and Community Learning Centers—the Triangular Clinic facilities were the primary source of HIV/AIDS treatment. The clinic network provided ART to a greater proportion of HIV-positive IDU, especially those on methadone maintenance treatment, than most other countries. Nationally, about 21.6% of IDU in the AIDS stage of the disease were on ART, though the West Tehran clinic provided only 12% of patients with ART, including 8% of methadone maintenance patients, and the Kermanshah clinic provided ART to only 17 of 209 in need. The Kermanshah clinic said homelessness and periods of imprisonment prevented it from providing ART to additional patients.

ART in prisons was even less common. The WHO report suggested that ART adherence among prisoners on methadone maintenance was as high as in other groups. It noted, however, that since most prisoners were also infected with hepatitis C, death from liver disease was common, deeming ART use inefficient.

Of all HIV/AIDS patients attending the Triangular Clinics, 23.8% also had active tuberculosis (TB). The services available through the Triangular Clinics varied depending upon the population, the location, and available resources, but many provided TB treatment.

WHO reporters noted, "One of the consistent strengths seen in the drug treatment system in Iran, including in prisons, is the remarkably respectful and dignified approach of clinicians and officials to drug users." They prescribed drugs for withdrawal symptoms as needed and kept counseling and testing

voluntary. In 2005 Iran was in the process of setting up a national hotline so that imprisoned IDU could call to discuss sensitive issues confidentially.

Financial and Moral Support

The year of the WHO study, Iran received funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria. The country had applied to the Global Fund in 2002 with the goal of maintaining “HIV prevalence among the general population at less than 0.3% and prevalence among high risk behavior groups below 20% by the end of 2007.” Despite the Global Fund approving USD 16 million in 2003, negotiations to determine who would serve as the primary recipient halted disbursement until 2005.⁶

The funded proposal had four main objectives: (1) strengthening surveillance and monitoring; (2) promoting HIV education and information; (3) reducing HIV risk and vulnerability through HIV and harm reduction health services; and (4) improving access to and quality of HIV/AIDS treatment and care. The proposal included the establishment of 40 Triangular Clinics in major cities, 40 in prisons, and the integration of harm reduction programs—including supplying syringes, methadone therapy, and condoms—nationwide.

In 2005 there was additional momentum for harm reduction activities from within the country. The head of the national judiciary issued an executive order to all judiciary officials, explaining that needles, syringes, and other materials associated with the prevention of disease were important elements of combating HIV/AIDS and other diseases. The executive order reinforced that individuals with these materials were not committing a crime unless they were acting with “malicious intent” (see **Exhibit 2** for the complete text).

Impact

Triangular Clinics were established in all provinces where integrated nationwide services were provided by 2009.¹³ By September 23, 2007, there were 16,090 reported cases of HIV-positive people in Iran (though the WHO had estimated there were 31,000 Iranians living with HIV by 2003; see **Exhibit 3** for chart of cases by year).¹² In 2008 national adult HIV prevalence was 0.2%;⁸ studies showed that HIV prevalence was as high as 15–25% in the city of Tehran.⁹ Injection drug users comprised more than 82% of the reported HIV cases for which the route of transmission was known (see **Exhibit 4** for more on cases by transmission routes). There were more than 154 sites for VCT and 600 sites for voluntary counseling.¹³ About 1.2 million people were tested annually.¹³ A 2006 study found that improved access to syringes limited needle sharing in most places.

In 2007 Farzadfar was no longer chair of the Subcommittee on Integration, having turned the plan over. He explained, “About 25% of people who need antiretrovirals get them. It’s really disappointing.” The 2008 WHO Towards Universal Progress Report reported 900 of 19,000 in need of ART were receiving it.⁷ “It’s because of financial problems,” Farzadfar said. The government could not purchase enough antiretrovirals for everyone who needed them.

Ongoing Challenges

The monitoring and evaluation system for the clinics and throughout Iran was in its early stages of development. There was not sufficient data to control quality or demonstrate efficacy. The overall coverage

of reporting was 20%.¹³ While most of the HIV/AIDS efforts focused on cities and towns, IDUs existed in rural areas with unknown HIV/AIDS prevalence.⁹

Injecting drugs continued to appeal to drug users because injecting was the only way to hide the habit; it was quick, and it did not require a pipe or cinders.⁵ Injectable drugs were also more readily available. The time it took for someone to transition from smoked opium to injected opiates was shortening, and the government estimated there were 200,000 IDU in Iran in 2005.¹³

Needle sharing continued in prisons, private parties, and public places identified for group injection. In one study, only a minority of respondents mentioned poverty as a barrier to purchasing clean needles; some believed there were not enough needle exchange and methadone maintenance programs, and there was still erratic enforcement of the new protections for harm reduction, with continued police raids at needle exchange programs. The primary reason that people shared needles was to satisfy their addiction.

Iran's harm reduction and HIV control programming could not forget about the sexual risks of HIV/AIDS that some believed needed to be better addressed with condom use promotion.^{5,11} And, the country would never beat the epidemic without the border countries addressing the disease as well given the migration in both directions.¹⁰ These issues were a lot more complex than the solution Farzadfar had presented.

Exhibit 1 Segment of Table used to Itemize Triangular Clinic Activities for Integration

گروه هدف Target group	شخصیت حقوقی متولی خدمت در واحد ارائه دهنده خدمت provider	واحد متولی اجرای خدمت در سطح شهرستان District level unit related to this activity	واحد متولی اجرای خدمت در سطح استان provincial level unit related to this activity+	اداره متولی اجرای خدمت در سطح ملی National level unit related to this activity	سطح پیشگیری برای این خدمت Level of prevention for this activity (primary, Secondary, tertiary)	نام خدمت Name of activity	ردیف
							.1
							.2

Source: Farshad Farzadfar.

Exhibit 2 Executive Order Legalizing Harm Reduction Program Components

Date: Jan 24th 2005
Ref: 1-83-14434

ISLAMIC REPUBLIC OF IRAN
Judicial Branch


Executive Order to All Judicial Authorities Nationwide

Among the legal obligations of the Ministry of Health and Medical Education is the implementation of programs necessary for the prevention of transmission of communicable diseases aimed at harm reduction and maintenance of public health and well-being of society based on guidelines required to fulfill its mission. One of interventions has been done by the Ministry of Health and Medical Education includes provision of needles, syringes and other material used individually by drug addicts and AIDS patients as well as methadone maintenance treatment programs as means of combating HIV and Hepatitis infections among drug addicts. According to the Ministry some judicial authorities have considered such an intervention as ally to crime subject to punitive action, thus unintentionally impeding the implementation of health and treatment programs aimed at prevention and combating the transmission of dangerous contagious diseases.

Thus, this is to remind judges at all courts of justice and prosecutors' offices throughout the country that since a major element of accompainment in crime needs to be verification of malicious intent, the said interventions are clearly void of such malicious intent but rather motivated by the will to fulfill the mission of protecting society from the spread of deadly contagious diseases such as AIDS and hepatitis. Therefore all judicial authorities must consider the lack of malicious intent in the interventions of the Ministry of Health and Medical Education as well as those of other centers and organizations which are active in this field and not accuse the service providers with unfair characterization of accompainment in the criminal abuse of narcotics and not impede the implementation of such needed and fruitful programs.

Seyed Mahmood Hashemi Sharoudi
Head of the Judiciary
Jan 24th 2005

شماره: ۱۸۹۱۴۴۳۴
پوست:



بخشنامه به کلیه مراجع قضایی سراسر کشور

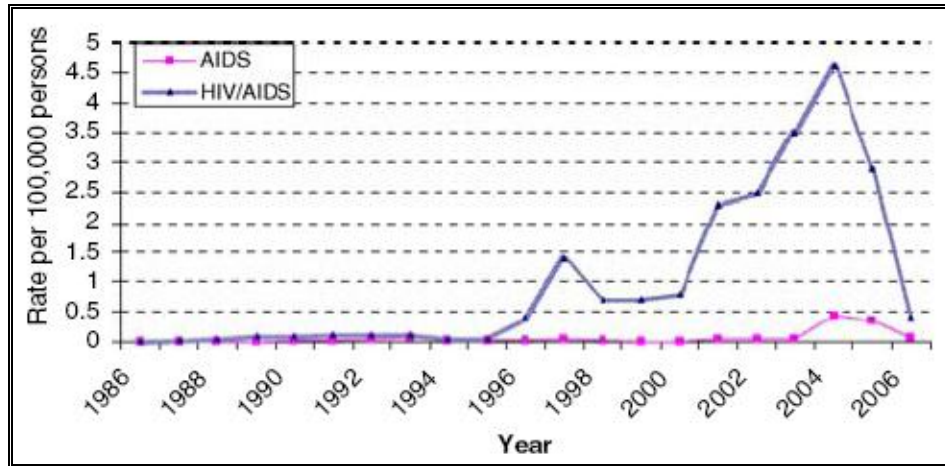
از جمله وظایف قانونی وزارت بهداشت درمان و آموزش پزشکی اجرای برنامه‌های لازم برای پیشگیری از شیوع بیماری‌های واگیردار به منظور کاهش آسیب‌ها و حفظ بهداشت و سلامت جامعه است که رفتارهای لازم را جهت اجرای وظایف خود تهیه و به مورد اجرا می‌گذارد. یکی از اقداماتی که وزارت بهداشت درمان و آموزش پزشکی به منظور جلوگیری از سرایت بیماری ایدز به موقع اجرا گذاشته است، توزیع سرنگ و سوزن و سایر اشیاء مورد استفاده شخص معنادار و مبتلایان به ایدز و اجرای برنامه‌های درمان نگهدارنده همادون به عنوان یکی از روش‌های مقابله با عفونت ایدز و هیپاتیت برای معناداران است. حسب انعام وزارتخانه یاد شده بعضی مراجع قضایی این عمل را معاونت در جرم تلقی کرده و آن را قابل تعقیب کیفری دانسته‌اند و بدین ترتیب ناموسانه موجبات عدم اجرای برنامه‌های بهداشتی و درمانی را در زمینه پیشگیری و مقابله با شیوع بیماری‌های واگیردار و خطرناک فراهم نموده‌اند.

بدین جهت به کلیه قضات دادسراها و دادگاهها در سراسر کشور یاد آور می‌شود، از عناصر اصلی برای تحقق بزه معاونت در جرم احرار سوء نیت مرکب است که این قبیل اقدامات ناشی از این عنصر بوده بلکه با حسن نیت و در اجرای وظیفه حفظ و صیانت جامعه از شیوع بیماری‌های مبتک و واگیردار همانند ایدز و هیپاتیت انجام می‌شود. بنابراین لازم است کلیه مراجع قضایی در تشریح خود به اقداماتی که وزارت بهداشت درمان و آموزش پزشکی و سایر مراکز و دستگاهها در این زمینه انجام می‌دهند، فقدان عنصر معنوی جرم و تکلیف قانونی آنها در اجرای برنامه‌های بهداشتی و درمانی را مورد توجه قرار دهند و با توصیف ناروای معاونت در جرم استعمال مواد مخدر و با اغویان دیگر و تعقیب نالجای متصدیان و مجریان مانع برنامه‌های ضروری و مفید آنها نشوند. ۱۳۷۷

سید محمود هاشمی شاهرودی
رئیس قوه قضاییه

Source: Salmon et al, 2007.

Exhibit 3 HIV and AIDS by Year, 1986–2006



Source: Fallahzadeh, H., M. Morowatisharifabad, and M.H. Ehrampoosh, HIV/AIDS epidemic features and trends in Iran, 1986-2006. AIDS Behavior, 2009. 13(2): p. 297-302.

Exhibit 4 Number of HIV/AIDS, HIV, and Death Cases by Means of Transmission Among Iranians, 1986–2006

	Male	Female	Total
<i>HIV/AIDS category</i>			
Injection drug use	8765 (91.1)	84 (15.5)	8894 (64.58)
Sexual contact	601 (6.2)	410 (75.5)	1011 (7.37)
Prenatal	223 (2.3)	17 (3.2)	240 (1.75)
Mother	35 (0.4)	32 (5.9)	67 (0.49)
Unspecified	3325 (25.6)	210 (27.9)	3535 (25.79)
Total	12949 (94.5)	753 (5.5)	13702 (100)
<i>AIDS category</i>			
Injection drug use	463 (61.2)	1 (1.4)	464 (56.2)
Sexual contact	111 (14.7)	47 (61.7)	158 (19.1)
Blood	117 (15.5)	7 (10)	124 (15)
Prenatal	10 (1.3)	2 (2.9)	12 (1.5)
Unspecified	55 (7.3)	13 (18.6)	68 (8.2)
Total	756 (91.5)	70 (8.5)	826 (100)
<i>Deaths category</i>			
Injection drug use	1217 (73.9)	10 (16.2)	1227 (71.8)
Sexual contact	131 (8)	34 (54.8)	165 (9.6)
Blood	115 (7)	9 (14.5)	124 (7.3)
Prenatal	9 (0.5)	1 (1.6)	10 (0.6)
Unspecified	175 (10.6)	8 (12.9)	62 (3.6)
Total	1647 (96.4)	62 (3.6)	1709 (100)

Source: Fallahzadeh, H., M. Morowatisharifabad, and M.H. Ehrampoosh, HIV/AIDS epidemic features and trends in Iran, 1986-2006. AIDS Behavior, 2009. 13(2): p. 297-302.

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