

Knowledge, Attitudes, and Practices Survey of Workers in Qualified Industrial Zones and Small Businesses in Jordan



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Cover photo: Factory workers in a qualified industrial zone in Jordan.
Yahya Qawasmi, USAID

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Acronyms

AIDS	Acquired immune deficiency syndrome
FGAC	Family Guidance Awareness Center
FHI	Family Health International
HIV	Human immunodeficiency virus
IR	Intermediate result
KAP	Knowledge, attitudes, and practices
MOH	Ministry of Health
NAP	National AIDS Program
NGO	Nongovernmental organization
PLWHA	Persons living with HIV/AIDS
PPS	Probability proportional to size
QIZ	Qualified industrial zone
STI	Sexually transmitted infection
USAID	US Agency for International Development
VCT	Voluntary counseling and testing

Acknowledgments

This study was carried out by the Expanding HIV Prevention in Jordan Project, which is implemented by Family Health International (FHI)/Jordan and funded by the US Agency for International Development (USAID) under cooperative agreement 278-A-00-0600327. It could not have been realized without the collective efforts and participation of the Ministry of Health's National AIDS Program (MOH/NAP); Ipsos Stat Jordan, a local research organization; and Family Guidance and Awareness Center (FGAC), the implementing agency of FHI/Jordan's workplace HIV/AIDS prevention program.

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Appreciation is also due to study personnel and study populations; business managers in Jordan's qualified industrial zones (QIZs) and small businesses; and individuals, community leaders, and volunteers whose dedication to and desire for knowledge about HIV-related care and prevention were admirable and encouraging.

We thank all those who participated at study report's dissemination workshop on 28 July 2008: MOH/NAP representatives, members of the surveillance working group, representatives of QIZ senior management and the HIV focal point in Zarqa, and Zarqa governmental representatives. Their comments, reactions, and feedback on preliminary findings helped to raise the level of the analysis and make this study report a critical tool for decision-making.

Executive Summary

FHI/Jordan has been managing a USAID-funded workplace prevention program to increase awareness of STIs, HIV, and AIDS in the low-prevalence country. Implemented by the Ministry of Health's Family Awareness and Guidance Center, the program promotes the adoption of preventative behaviors among workers in small businesses and those employed in factories in qualified industrial zones (QIZs). Interventions mostly consist of behavioral communication activities, including outreach peer education, mentoring, health education sessions, and the promotion of risk reduction, as well as referrals and linkages to health services, including to HIV voluntary counseling and testing.

USAID supported this baseline knowledge, attitudes, and practices (KAP) survey to determine whether the program has contributed to changed behaviors and increased awareness of HIV among targeted groups. The study provides a baseline for future interventions and can serve as advocacy tool to encourage more funding and support for similar interventions, especially from QIZ and small businesses employers who had been unsure of the efficacy of such programs.

Ipsos Stat Jordan conducted the study in Dleil, Sahab, and Zarqa. It surveyed a sample of 1,600 adults age 18 and over in two workforces: 400 males in small businesses in Zarqa and 800 males and 400 females employed for 12 months or more in QIZs in Dleil and Sahab. Fieldwork, completed in April 2008, entailed face-to-face interviews and the use of questionnaires in Arabic and English, since most QIZ workers are from Asian countries.

Study respondents had high levels of awareness of HIV/AIDS. Nearly all knew about male condoms, and most reported that they had relatively easy access to condoms and to voluntary testing and counseling. Nevertheless, a significant number reported risky sex with non-regular partners or sex workers during the past 12 months, together with low rates of consistent condom use. The study also revealed that many respondents had significant misconceptions about HIV/AIDS, including that condom use, abstinence, and being faithful did not protect against HIV transmission.

Respondents exposed to program interventions expressed more willingness than those not exposed to share meals and work alongside HIV-positive co-workers. Those exposed also had more accurate knowledge of modes of transmission of HIV.

This survey provides valuable baseline information that can assist the redesign of interventions and new efforts to curtail the spread of HIV/AIDS in Jordan and reduce high levels of stigma and discrimination against people living with HIV/AIDS. Interventions need to be continued and successive KAP surveys conducted among the same groups every two or three years. More quantitative and qualitative research is also needed to provide insight into the risky sex behaviors revealed by the survey and to identify and remove barriers to the adoption of healthier behaviors.

FHI/Jordan's Workplace HIV Prevention Program

Background

Jordan is a low HIV prevalence country. According to statistics issued by the Ministry of Health's National HIV/AIDS Program (MOH/NAP), the percentage of HIV infection is continuously rising, primary through sexual transmission (over 47 percent). Most of the information about its epidemic is based on passive case reporting. As of December 2007, 556 people—186 Jordanians and 370 non- Jordanians—have been identified as HIV-positive, and 85 of the Jordanians are known to have died.

FHI/Jordan has engaged the private sector in the response to HIV/AIDS and increased the sector's involvement in HIV projects. It has brought together private-sector leaders with representatives of labor unions, local NGOs, and NAP to discuss issues and appropriate HIV prevention interventions, increasing the HIV and AIDS awareness of business leaders and improving their understanding of the potential impact of the epidemic on their workforces, productivity, consumer base, and profits.

The HIV prevention program

In cooperation with the MOH's Family Awareness and Guidance Center (FAGC), FHI/Jordan launched a USAID-funded workplace prevention program in April 2006 with the goal of increasing awareness of STIs, HIV, and AIDS and promoting the adoption of preventative behaviors among high-risk workers in small businesses and industrial complexes in QIZs in Zarqa and Dleil.¹ Such workplace prevention interventions can lead to positive outcomes beyond the workplace when workers share what they learn with their families.

¹ QIZs have resulted from a unilateral US initiative to promote Jordanian exports to the US market. Goods that are made by national and international companies that locate their factories within QIZs can be exported duty-free to the United States.

Initially, the program targeted workers in factories within the zones. In these locations, the minimum working age is 18, and many workers are graduates of middle and high schools, colleges, and universities. The targeted workforces included Jordanians who live in Dleil (population about 70,000) and Zarqa (population 1 million), as well as expatriates who live in dormitories within factory premises. In December 2006, the program expanded its coverage to QIZs in Sahab and to taxi and bus drivers in Zarqa.

FHI interventions mostly consisted of strategic behavioral communication activities, including outreach peer education, mentoring, health education sessions, promotion of risk reduction, and referrals and linkages to health services, including to HIV voluntary counseling and testing (VCT). The program tracked the number of people reached with HIV prevention information, the number referred for VCT, and the number of condoms distributed.

Some Program Achievements

- 23,719 reached with peer education outreach activities
- 1,482 reached with VCT information
- 96 referred to VCT services
- 800 condoms distributed

Program results

With support from USAID, FHI investigated whether project activities are contributing to changed behaviors. A limited KAP survey was conducted among a random sample of workers to measure outcomes and contribute to the first strategic objective of the Jordan National HIV/AIDS Strategy: “To collect, analyze and use strategic information relating to the spread of HIV/AIDS and the national response to the epidemic in Jordan.”

As well as contributing to the national strategic objective cited, the project addressed donor-specified indicators for USAID/Jordan’s strategic objective 9: intermediate result (IR) 9.1, “improved health for all Jordanians,” and sub-result 9.1.1, “improved quality of and access to healthcare services and information,” 9.1.2, “improved health policies, strategies, and systems,” and 9.1.3, “improved practice of healthy lifestyles.”

The survey’s ultimate goal is to provide information for evidence-based prevention services that will limit the spread of HIV among workers and, more generally, in Jordan. QIZ and small business workforces within FHI-supported industries were surveyed to

- assess their knowledge, attitudes, practices, and beliefs in relation to HIV/AIDS
- determine their level of risk behaviors for HIV transmission
- evaluate the coverage and outcomes of HIV prevention interventions

The resulting survey provides a baseline for future interventions. More importantly, it can serve as advocacy tool relating to the allocation of more funding for similar interventions and may encourage other QIZ and small businesses employers who had been unsure of their efficacy to initiate prevention interventions.

At a dissemination meeting held on 28 July 2008, FHI/Jordan shared study results with representatives of USAID, MOH/NAP, the Ministry of Interior, HIV/AIDS focal points in Amman and Zarqa, the Jordan Bio-Behavioral Surveillance Survey Working Group, FGAC, QIZ management, and community partners.

Survey Methodology

The baseline study covered workers 18 and older in QIZs and small businesses who were targeted by the program's prevention activities: males in small businesses and males and females who had been employed in the QIZ workforce for 12 months or more. The threshold of 12 months was chosen to ease the language challenge: many QIZ workers are from Asian countries, and those newly arrived are not as likely to speak Arabic. Mini-bus and taxi drivers were not covered in the survey, but they are to be included in a behavioral surveillance survey planned by the MOH.

FHI's International Protection of Human Subject Committee reviewed protocols, questionnaires, and consent forms. Study tools were translated into Arabic and refined after a mapping and pretesting exercise in three study sites. Feedback recommendations served to refine the questionnaires and the fieldwork plan.

Before initiating fieldwork, FGAC implemented rapid assessment and mapping of the study population to identify possible challenges and better understand how QIZ and small business workers are organized. In addition to informing MOH/NAP and other key partners of the study, FGAC facilitated trust-building between workers and management.

Ipsos Stat Jordan, an experienced local research organization, was contracted to carry out the study. It analyzed the qualitative data collected by FGAC to inform sampling, selected and trained interviewers, determined the best times and places for interviews, and developed field work and sampling plans. Questionnaires were pretested, and fieldwork was completed between April 3 and 22, 2008.

Sampling

Differing sampling methodologies were adopted: probability proportional to size (PPS) sampling in factories in Dleil; systematic random sampling in worker-dormitories in Sahab, and systematic random sampling along three main streets in Zarqa (15 kilometers south of the industrial park), where most of the skilled and professional workforce members live.² A total of 1,600 workers were surveyed: 400 male workers in small businesses selected randomly in Zarqa, including more than one respondent in each business; 400 males in factories in Dleil; 400 males in worker-dormitories in Sahab; and 400 females in the QIZ workforce in Dleil and Sahab (table 1). The number sampled took into account a formula to measure change over time, the lack of a baseline, and a 30 percent non-response rate.

Table 1. Sample size by site and target group

<i>Locations</i>	<i>Target group</i>	<i>Sample sizes</i>
Dleil	QIZ males	400
Sahab	QIZ males	400
Dleil and Sahab	QIZ females	400
Zarqa	Small business workers, males	400

Staffing, training, and ethical considerations

Data were collected through face-to-face interviews, since most QIZ workers speak languages other than Arabic. The questionnaire was in English and Arabic, and took an average of 30 minutes to administer. As needed and as a last resort, interviewers sought the help of interpreters, an approach that can introduce bias to responses. Onsite interpreters who spoke languages spoken by QIZ workers sometimes translated from English or Arabic to workers' native languages.

Ipsos Stat Jordan recruited 22 interviewers of both genders and five supervisors. All attended a five-day training facilitated by FHI and FGAC that included role plays. The training explained methods for collecting information; reviewed potential challenges, codes of conduct, and ethical considerations; provided basic facts on HIV/AIDS and stigma and discrimination; and reviewed details about the study population and their working environments.

For respondents, the risks of participating in this study were minimal. Consent forms were signed by interviewees—all adults age 18 and over—and interviews were held in

² In Zarqa, the surveys were conducted on Mesfah, Safeway, and Awajan streets.

locations that offered privacy. To reduce potential embarrassment when questions were asked, names and identifiers were not taken or linked to questionnaires.

Once collected, all data were immediately given to the site supervisor and stored under lock and key by Ipsos Stat Jordan. Access was restricted to the study coordinator and specified staff engaged in data entry, analysis, and report writing. Computers used for data analysis were password-protected.

Data control, entry, and analysis

In the three locations, a 5:1 ratio of field supervisors to interviewers controlled the process. The supervisors provided assistance with filling out questionnaires, asked interviewers to repeat work when information was not clear, cancelled improper interviews, and terminated interviewers who proved to be incapable. Supervisors reviewed and edited questionnaires not later than one day after the interviews, identifying incomplete or wrongly filled out items. All completed questionnaires were reviewed in this way before they were handed to the study coordinator.

The study coordinator and the FHI program officer supervised the supervisors and made periodic visits to ensure that the survey was being properly implemented. A third level of control was implemented in the data processing department, since all questionnaire information was reviewed and checked before data entry began. Access to data was limited to senior study staff. Data analysis software was used, and the analysis focused on knowledge, attitudes, and practices; gender; geographical areas; and workforce type. FHI provided technical assistance on the analysis plan, data analysis, and the finalization of the study report.

Key Findings

Challenges and limitations

Several challenges may have biased the data in one way or another. Some factories were closed during the survey period. The need for translation was another problem, since most members of the QIZ workforce do not speak Arabic. The environment for the study was characterized by high stigma, notwithstanding the recent completion of an 18-month intervention for survey populations. Fear compounded the stigma, since migrant workers seeking employment at QIZs receive mandatory HIV tests on arrival in Jordan and those testing positive are deported.

Sample characteristics

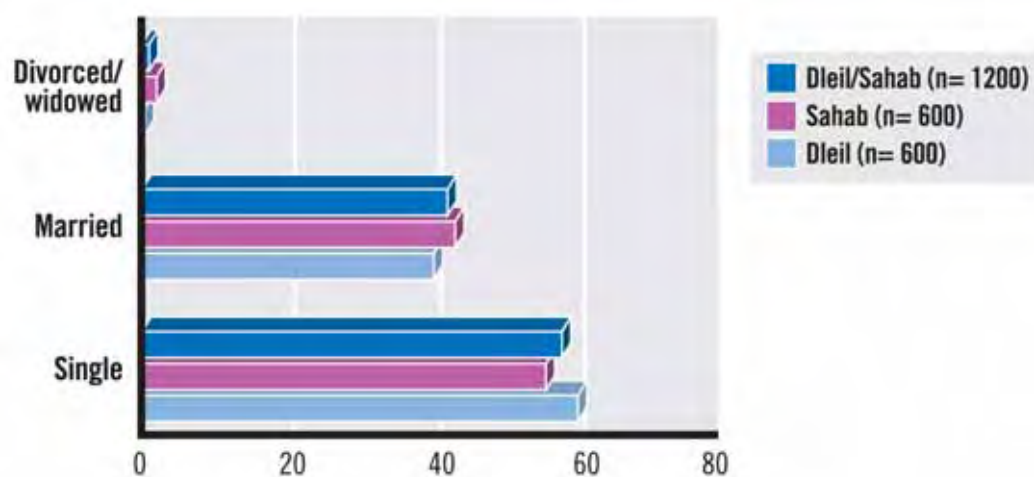
Gender: All workers in small business were males. The sample selection—66 percent male and 33 percent female—took into account the lower number of women workers in QIZs.

Age: Though the age range of respondents was 18–60, most were in sexually active age groups and relatively young. Within QIZ and small business workforces, 40 percent were between age 21 and 25 and 37 percent were between 26 and 31. Across the total sample, the 18–20 age group had the highest representation—18 percent—in small businesses.

Education level: Nearly all study participants—98 percent of males and 99 percent of females—had attended school, while the figure in Sahab was 95 percent. Within the QIZ workforce, 40 percent had secondary schooling and 25 percent had attended elementary school. Among small business workers, 42 percent had elementary schooling.

Marital status: Most workers—57 percent in QIZs and 51 percent in small business—were single. In Dleil, 60 percent were single. Workers who were widowed and divorced constituted less than 2 percent of respondents (fig. 1).

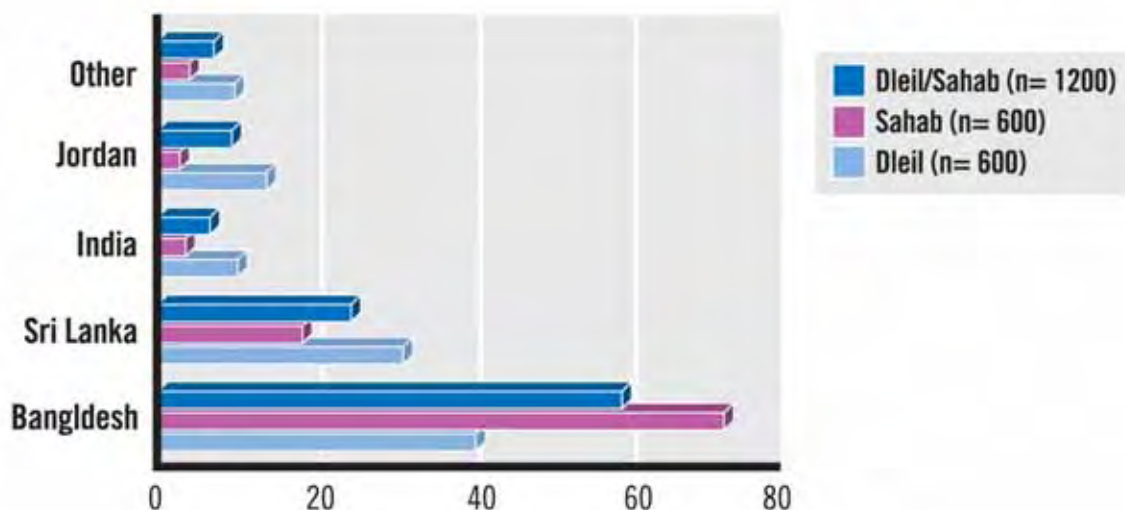
Fig. 1. Marital status of workers in QIZs and small businesses (percent)



Country of origin: All workers in small businesses were Jordanians. Within QIZs, Bangladeshis were the largest group: 40 percent in Dleil and 74 percent in Sahab. The next largest group was Sri Lankan, at 29 and 18 percent, respectively. Jordanians constituted 14 percent of the workforce in Dleil but only 2 percent in Sahab (fig. 2).

Indians and Palestinians accounted for less than 10 percent of the QIZ workforce. Other QIZ workers were from China, the Philippines, Indonesia, Nepal, Pakistan, and Egypt.

Fig. 2. Country of origin of QIZ workers (percent)



Substance abuse: Among targeted workers in QIZs and small businesses, 7 percent consumed alcohol at least once a week. This applied to 3 percent of female respondents and 8 percent of males in the QIZ workforce. Respondents who consumed alcohol less than once a week accounted for 11 percent of QIZ workers and 3 percent of workers in small businesses. Within the QIZ workforce, 1 percent had participated in group drugs, including heroin and marijuana, while 2 percent of workers in small businesses had done so. Respondents engaging in group drugs were mostly males: less than 1 percent of female respondents acknowledged doing so.

Knowledge, attitudes, and practices relating to HIV and AIDS: Respondents were asked whether they had heard of HIV and whether a close friend or relative had been infected by the virus. They were also asked questions on what they knew about modes of transmission, including mother-to-child transmission and injecting drug use; whether they believed transmission could occur by sharing food or using toilets; whether male condoms provide protection; and their sources of information about HIV/AIDS.

Awareness of HIV/AIDS and sources of information: Almost all respondents—97 percent—had heard of HIV: 99 percent of females and 95 percent of males. Co-workers were referenced as a source of information by 14 percent of QIZ workers and 23 percent of small business workers. For most, their main source of information was the media, cited as such by 95 percent of respondents in small businesses and 89 percent of QIZ workers.

The media were considered to be the best source by 70 percent of small business workers and 81 percent of those in QIZs. FGAC was mentioned as the main source of information by about 5 percent of respondents and the best source by 5 percent. Among those in this category, there was no difference between male and female respondents, with the exception of those who had visited QIZ workplace clinics. Within this group, 22 percent of females and 8 percent of males considered FGAC the best source, a statistically significant difference ($P < 0.05$).

Knowledge of mode of HIV transmission: Sexual transmission of HIV was mentioned by 95 percent of workers in QIZs and 94 percent of respondents in small businesses. There were no significant differences between male and female respondents in this category. The second most well-known mode of HIV transmission was injecting drug use, known by 59 percent of small business workers, 60 percent of respondents in Dleil, and 55 percent of those in Sahab. Less than 10 percent of small business workers and 12 percent of QIZ workers were aware of mother-to-child transmission of HIV.

Misconceptions about HIV/AIDS: Respondents were questioned on misconceptions about HIV transmission: whether they thought that the virus could be transmitted by a mosquito bite or by sharing meals or using the same toilet as persons living with HIV/AIDS (PLWHA). They were also asked whether a healthy-looking person can be HIV-infected and transmit the virus, and whether consistent use of male condoms, faithfulness, and abstinence protect against transmission.

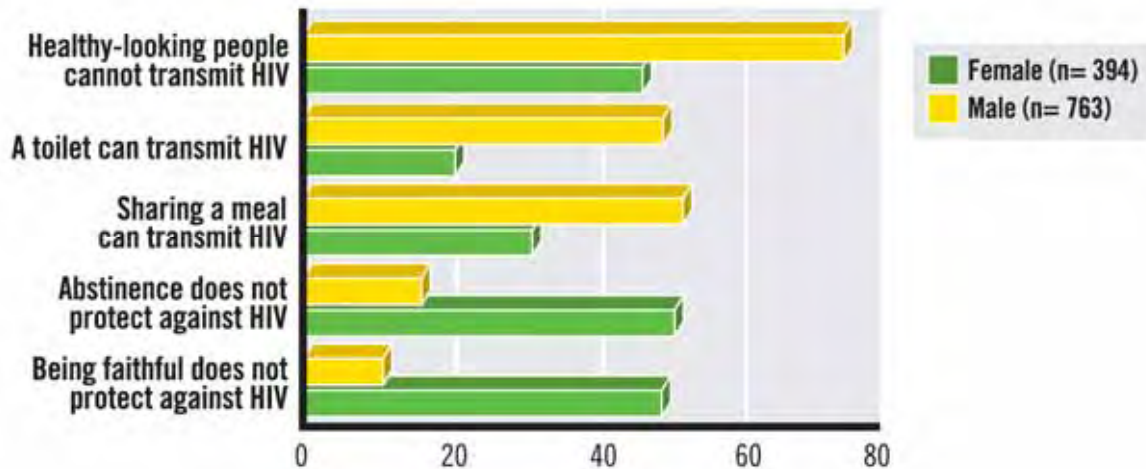
Only 21 percent of QIZ workers and 38 percent of small business workers believed that condoms protect against HIV, with no significant difference between males and females. Males and females—49 and 51 percent, respectively—also shared the misconception that mosquito bites can transmit HIV.

There were, however, significant differences between males and females in their responses to questions on sharing meals with PLWHA and using toilets they had used. Females harbored a higher rate of misconceptions than males about the dangers of sharing food (52 versus 29 percent) and using the same toilet as an infected person (74 versus 21 percent), and they were more likely to believe that a healthy-looking person could not transmit HIV (74 versus 44 percent). Among QIZ workers as a whole, 61 percent believed that healthy-looking people could transmit HIV, as did 51 percent of small business workers.

There were also significant differences between male and female responses to questions concerning abstinence and being faithful. Among males, 47 percent said abstinence does not protect against HIV and 50 percent said the same of being faithful, compared to 12

and 17 percent of female respondents. The misconceptions are particularly prevalent in the small business workforce (fig. 3).

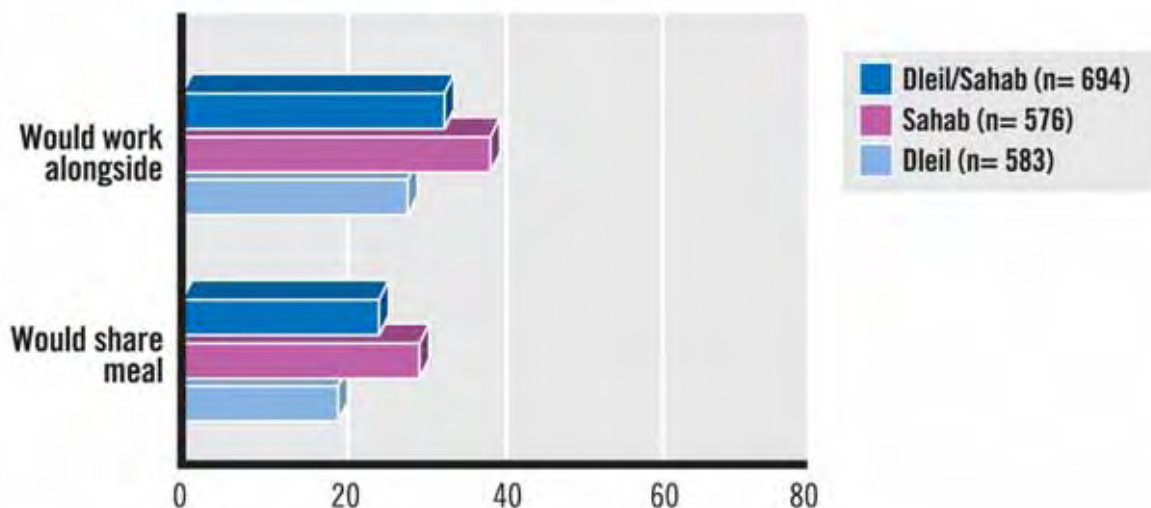
Fig. 3. Male and female QIZ workers with misconceptions about HIV (percent)



Stigma and discrimination

Two questions were used as proxy indicators to assess levels of stigma and discrimination: whether respondents were willing to work alongside PLWHA and share food with them. QIZ workers had more positive perceptions, compared to those in small businesses. Overall, 23 percent of QIZ workers reported they would share meals with infected co-workers and 37 percent said they would work alongside them. Only 3 percent of small business workers were open to doing either (fig. 4).

Fig. 4. Attitudes toward PLWHA co-workers, percent



Males in the QIZ workforce had more positive attitudes than females: 35 percent were willing to work with infected co-workers and 26 percent would share a meal with them, compared to 15 and 11 percent of females (table 2).

Table 2. Attitudes toward PLWHA of males and females in QIZ workforces

	<i>Male (n=763)</i>	<i>Female (n=384)</i>
Would share a meal	26%	11%
Would work alongside	35%	15%

The survey asked whether respondents had witnessed co-workers being stigmatized or discriminated against because they were suspected of being HIV-positive. Within the QIZ workforce, 2 percent (3 percent in Sahab and 1 percent in Dleil) knew of such stigmatization within the last 12 months. Among QIZ respondents, 2 percent knew someone who had been verbally abused and 1 percent said they knew someone who had been denied health services. Within the small business workforce, 1 percent knew of someone being denied health services and experiencing verbal abuse.

Knowledge of male condoms, access, and ever use

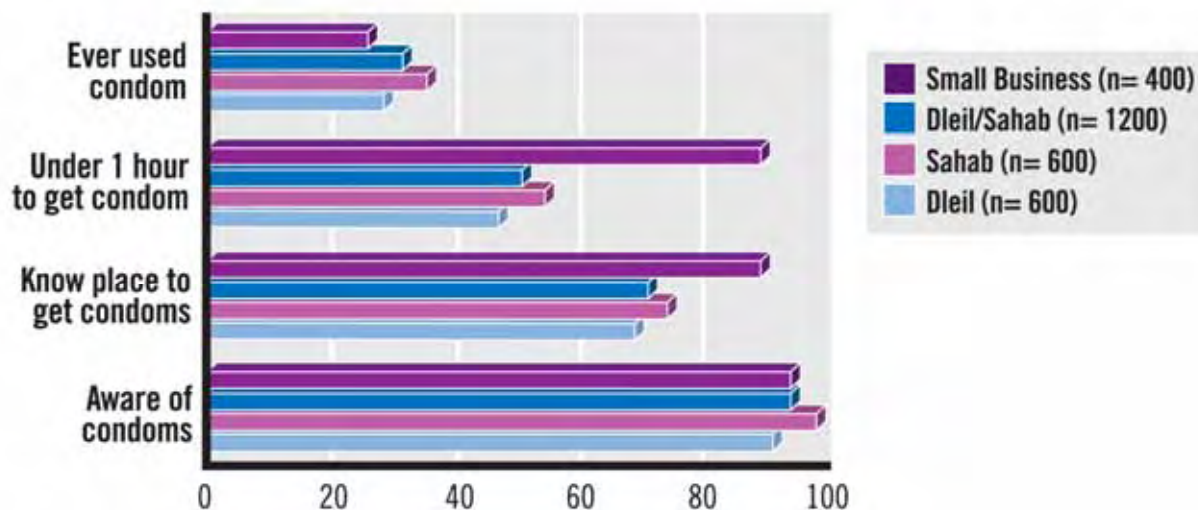
Respondents were asked if they had heard of or seen male condoms. If so, they were asked if they knew where get them, how long it might take to go and get them, and if they had ever used them.

Knowledge of male condoms: Condom knowledge was very high among males and females surveyed: 98 percent knew of or had seen them.

Knowledge of locations where condoms can be accessed: Within the (all-male) small-business workforce, 88 percent knew a place where condoms could be obtained. This was true of 67 percent of workers in QIZs: 81 percent of males and 50 percent of females had this knowledge. Pharmacies, supermarkets, hospital clinics were the main locations cited. Among workers in Dleil, 67 percent knew where they could buy condoms, compared with 74 percent of respondents in Sahab. Across most groups, more than 50 percent estimated that they could obtain male condoms in less than an hour, except in Sahab, where 45 percent of respondents said they could.

Ever use of male condoms: The ever use rate of male condoms is low, considering that condoms are well known and relatively easy to access. The ever use rate ranged from 26 percent among small business workers to 30 percent in Dleil and 38 percent in Sahab. Among QIZ workers, 42 percent of males (n=767) and 18 percent of females (n=379) reported ever use (fig. 5).

Fig. 5. Awareness of and access to male condoms and ever use, percent



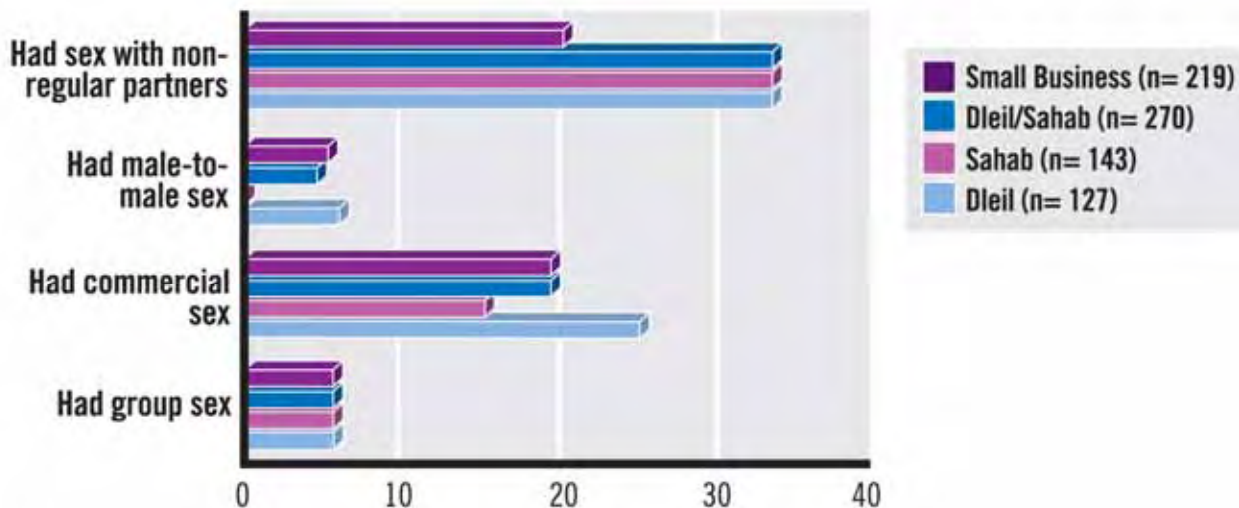
Sexual history, type of sex partners, and consistent condom use

Respondents who said they had commercial sex and those who said they had sex with non-regular partners within the last 12 months were asked about their condom use with each type of partner. Respondents were also questioned about their experiences of group sex and male-to-male anal sex in the past 12 months. The denominator was all respondents who report any non-commercial sexual partner over the past 12 months, and those who report always using condoms with non-commercial sex partners formed the numerator.

Sexual activity in the past 12 months: More than 50 percent of workers in QIZs and 63 percent of those in small businesses ever had sex, including 66 percent of respondents in Sahab and small businesses and 53 percent in Dleil. Within this group, 36 percent in Sahab, 40 percent in Dleil, and 87 percent in the small business workforce had sex in the past 12 months.

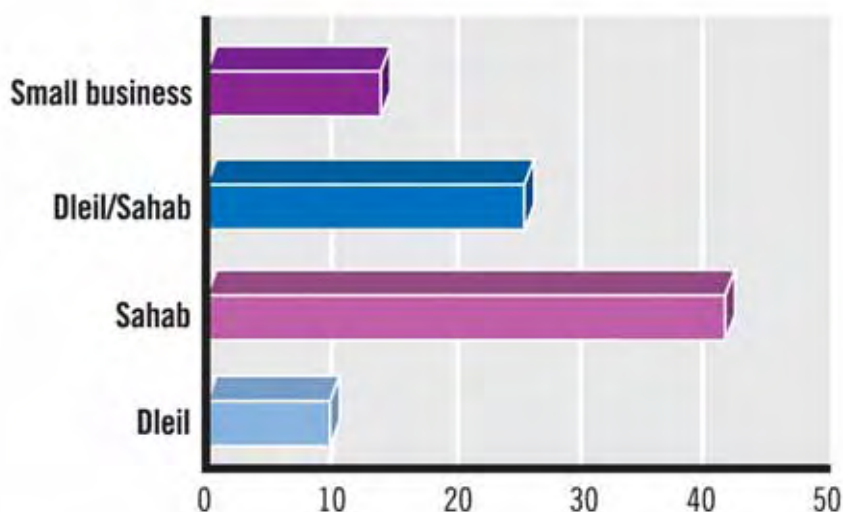
Risky sex in the past 12 months: Among sexually active respondents, 6 percent—all males—practiced group sex. Male-to-male anal sex in the past 12 months was recorded by 0 percent in Sahab, 7 percent in Dleil, and 5 percent of small business workers. In QIZs and small businesses, 20 percent reported they paid for commercial sex in the last 12 months, but the rate was higher—25 percent—in Dleil. In Dleil and Sahab, 33 percent of sexually active respondents reported having sex with non-regular sex partners, compared with 21 percent of workers in small businesses (fig. 6).

Fig. 6. Risky sex in the past 12 months, percent



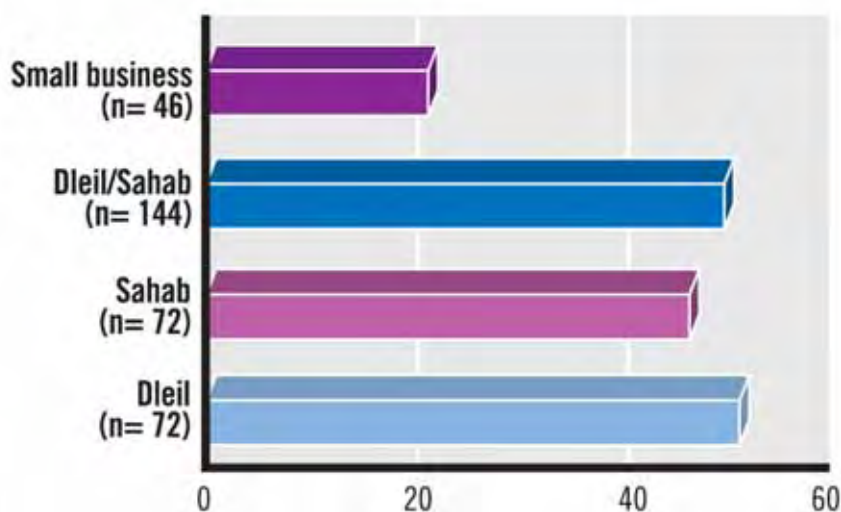
Consistent condom use with different types of partners: Males who engaged in commercial sex and in sex with non-regular partners in the last 12 months were asked about consistent condom use. In Sahab, 42 percent of those engaging in commercial sex reported consistent condom use, while this was true of only 10 percent of respondents in Dleil and 14 percent of respondents in the small-business workforce (fig. 7).

Fig. 7. Consistent condom use with commercial sex partners, percent



Larger percentages of respondents having sex with non-regular partners reported consistent condom use: 49 percent of those in the QIZ workforce—51 percent in Dleil and 46 percent in Sahab—and 21 percent of workers in small businesses (fig. 8).

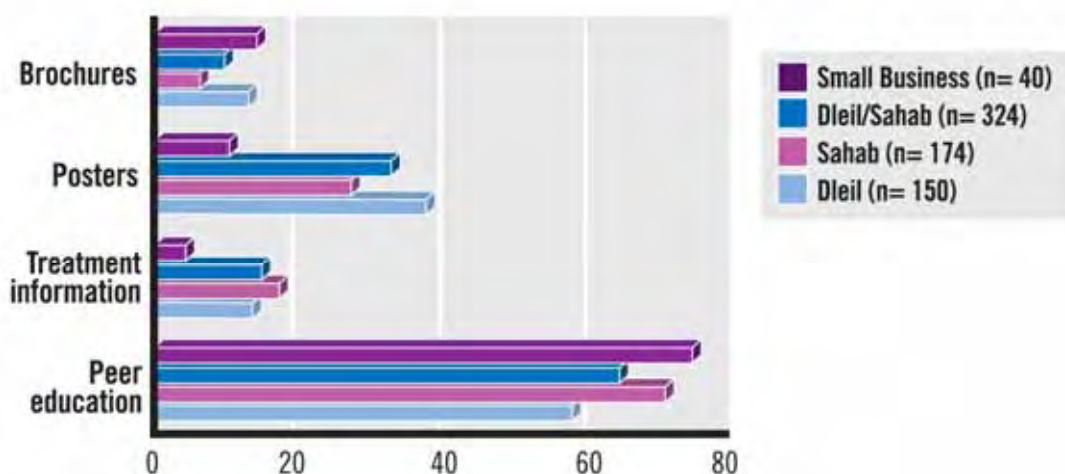
Fig. 8. Consistent condom use with non-regular sex partners, percent



Program coverage and exposure to interventions

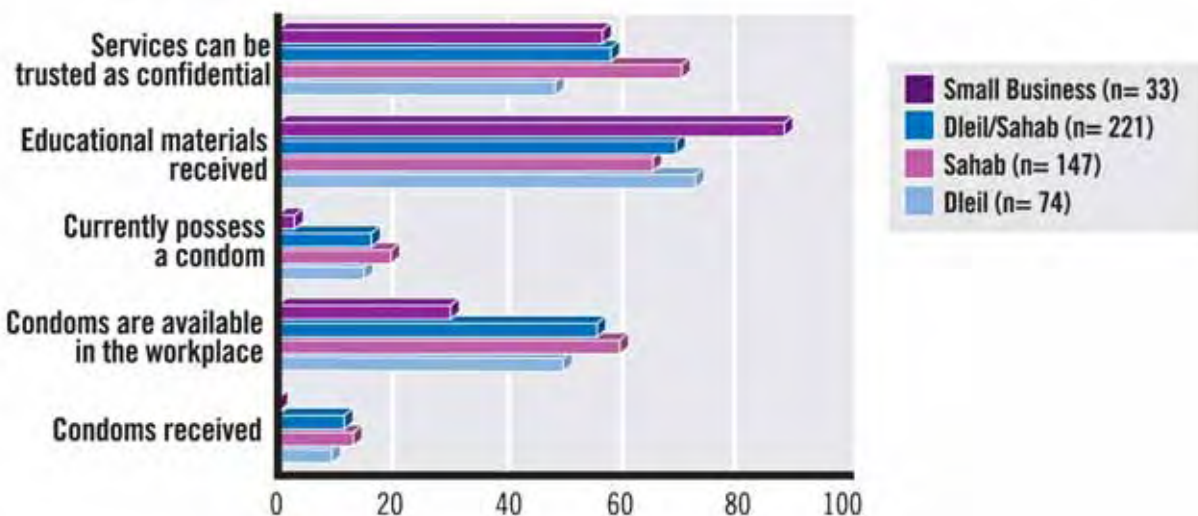
Awareness of HIV/AIDS service in the workplace: Only 25 percent of workers in Sahab, 29 percent in Dleil, and 10 percent of small business workers reported they were aware that they could access HIV prevention services in their workplaces. Among those aware of services, peer education was most frequently mentioned: by 75 percent of small business workers, 71 percent of respondents in Dleil, and 59 percent of respondents in Sahab. Posters were noted by 34 percent of respondents who knew of the services, but mostly by QIZ workers (fig. 9).

Fig. 9. Prevention materials and services reported, percent



Prevention services preferred: Informal discussions and peer education ranked high among workplace prevention services that workers wish to receive. Discussions were mentioned by 22 percent of QIZ respondents and 21 percent of small business respondents, while peer education was referenced by 19 percent of all groups. Books with information on HIV/AIDS were also cited (fig. 10). These preferred services match those that are available.

Fig. 10. Preferred prevention materials and services, percent



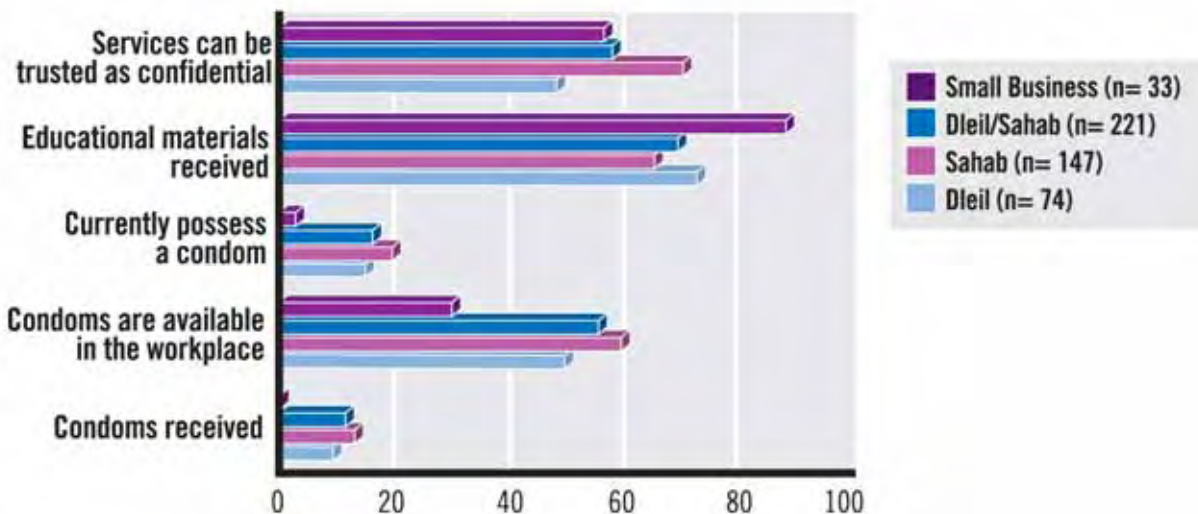
Types of services received in the past 12 months and perception of services: Of respondents who said they had received services from FGAC in the past 12 months, 18 percent were in the QIZ workforce—24 percent in Sahab and 12 percent in Dleil—and 8 percent in small businesses. Services received were trusted by 71 percent of respondents in Sahab, 59 percent of respondents in Zarqa, and 47 percent of those in Dleil.

Peer education accounted for most of the services received. Among respondents in Sahab who said they received services, 93 percent cited peer education, as did 82 percent of respondents in Dleil and in small businesses. Educational materials were mentioned by 15 percent of QIZ respondents in this group and 33 percent of those in small businesses. Referrals for VCT services were mentioned by 1 percent of respondents in Sahab and by 12 percent in Dleil and in small businesses.

Among those receiving services in the last 12 months, 54 percent in QIZs said condoms were available—47 percent in Dleil and 60 percent in Sahab—but only 27 percent of small business respondents concurred. Among those receiving services, 14 percent in QIZs said they received condoms—11 percent in Dleil and 16 percent in Sahab. The

group receiving services were also asked if they possessed condoms at the time of the survey. In QIZs, 20 percent of respondents in Sahab and 16 percent in Dleil did possess a condom at that moment, but this was true of only 3 percent of respondents in small businesses (fig. 11).

Fig. 11. Perceptions of interventions and services received

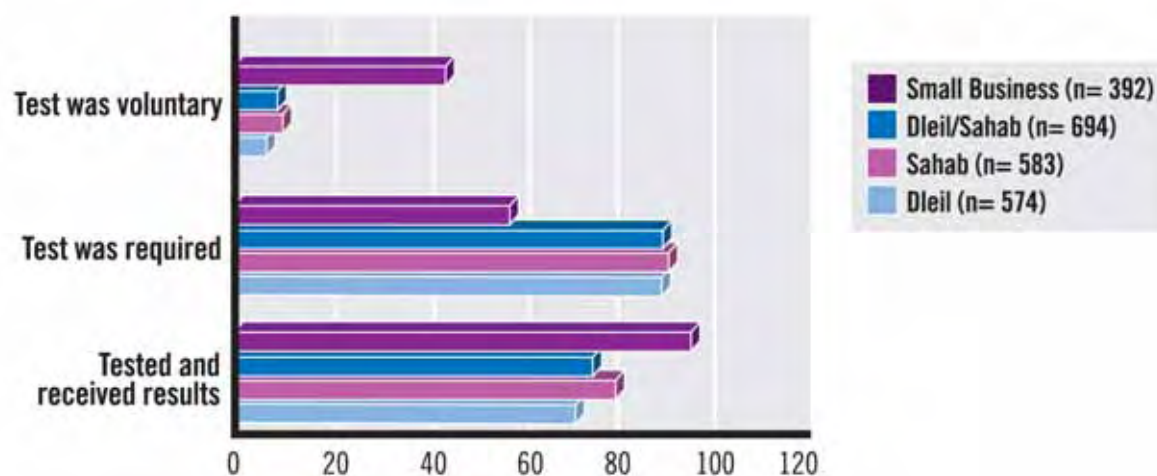


Access to VCT, awareness of HIV testing locations, and ever tested: Most study participants knew where they could go to be tested for HIV: 65 percent of those in small businesses and 60 percent of workers in QIZs.

Uptake of HIV testing was very high for QIZ workers—60 percent—but 7 percent among workers in small businesses. As mentioned, most QIZ workers are foreigners for whom HIV testing is mandatory, while workers in small businesses are not subject to mandatory testing. Most QIZ respondents (90 percent) said the tests were required, while 42 percent in small businesses said the tests were voluntary.

Most of those tested find out their results (fig. 12). Foreigners who test negative receive a MOH certificate that states they are free of infectious diseases, specifically TB and HIV. As mentioned, foreign workers who test HIV positive are deported from Jordan.

Fig. 12. Voluntary and required testing among respondents tested for HIV, percent



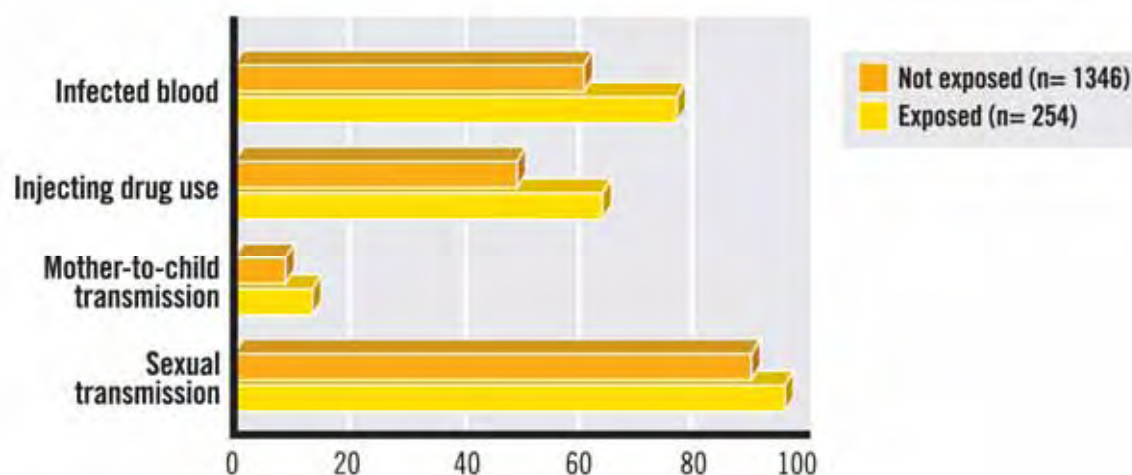
Knowledge, attitudes, and practices of exposed and non-exposed

The study assessed outcomes of FGAC interventions and exposure of target groups and compared the knowledge, attitudes, and practices of those receiving services in the past 12 months (exposed) with those of respondents who did not receive such services (non-exposed).

The data suggest that FGAC services have contributed to increasing knowledge and changing certain behaviors. Overall, 16 percent of respondents were exposed, including 18 percent of workers in QIZs and 8 percent of workers in small businesses.

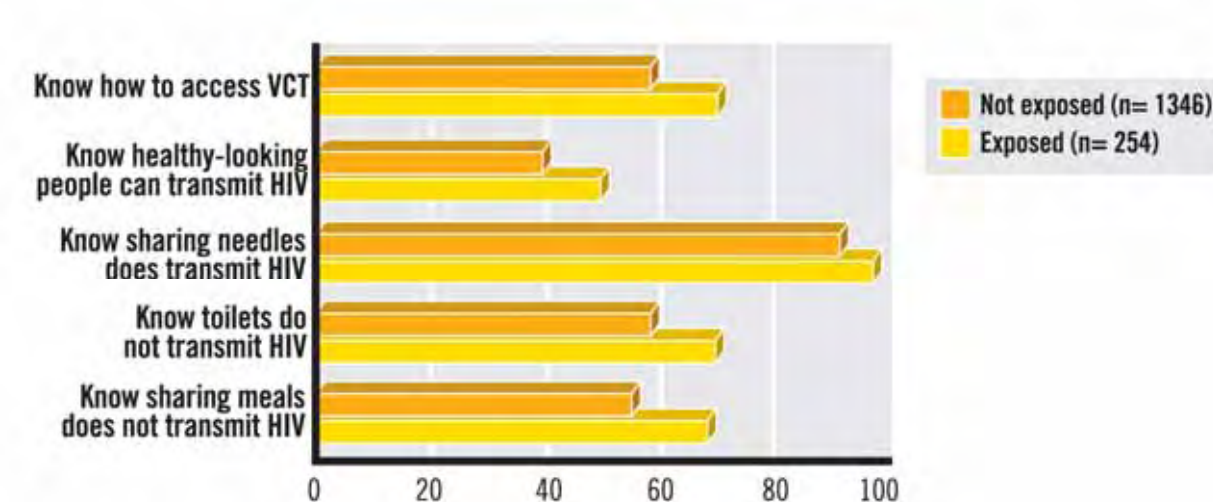
There was a significantly significant difference ($P < 0.05$) in HIV knowledge between the exposed and non-exposed. While 97 percent of the exposed knew that HIV is sexually transmitted, this was true of 90 percent of the non-exposed. Comparable figures for knowledge of mother-to-child transmission are 15 percent and 9 percent, and 64 percent and 9 percent for needles for injecting drugs as a transmission agent (fig. 13).

Fig. 13. Knowledge of modes of HIV transmission, exposed and non-exposed, percent



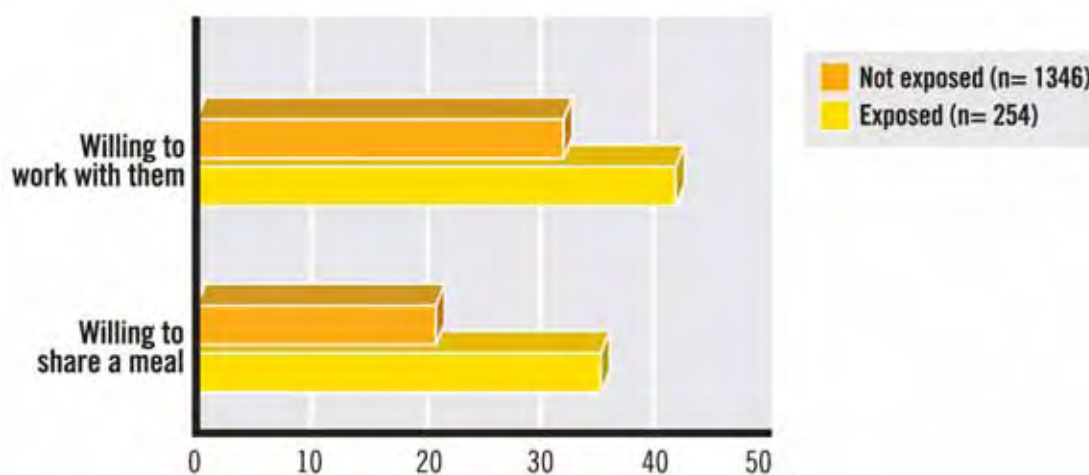
FGAC interventions have contributed to these findings. The exposed were also more likely to know that toilets do not transmit HIV and that healthy-looking people can harbor and transmit the virus (fig. 14).

Fig. 14. HIV knowledge, exposed and non-exposed, percent



There were also statistically significant and positive differences in attitudes toward PLWHA. Among the exposed, 31 percent said they would share a meal with a PLWHA co-workers and 42 percent said they would continue to work with them, while the comparable numbers for the non-exposed were 21 and 32 percent (fig. 15).

Fig. 15. Attitudes toward PLWHA co-workers, exposed and non-exposed



Those exposed to the interventions were more knowledgeable on access to VCT than the non-exposed (69 percent compared to 59 percent). Though there was no significant difference in condom awareness, the exposed were more likely than the unexposed to have ever used condoms: 42 percent compared to 31 percent (fig. 16 and table 3). Condom promotion has been a significant part of FGAC activities and may have contributed to these results.

Fig. 16. Awareness and use of male condoms, exposed and non-exposed, percent

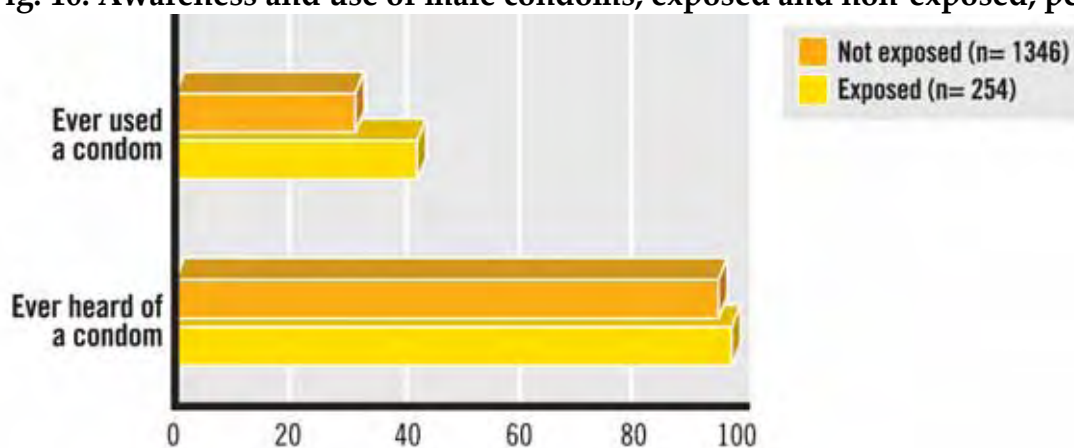


Table 3. Risky sex and condom use, exposed (n=254) and non-exposed (n=1346)

	<i>Exposed, percent</i>	<i>Non-exposed, percent</i>
Commercial sex in past 12 months	6	5
Sex with non-regular sex partners	15	7
Consistent condom for commercial sex	50 (7/14)	47 (29/61)
Consistent condom use with non-regular sex partner	34 (13/38)	36 (32/88)

However, risky sexual behaviors and condom use with different types of partners do not reveal much difference between the exposed and the non-exposed. Perhaps the explanation is that the program lasted only 18 months, including periods of a few months when it was not implemented, and behavior change does not occur overnight.

Conclusion

This rigorous study among QIZ and small business workforces in Jordan dealt with several challenges, including the country's high stigma environment and the need to communicate effectively with majority foreigners in the QIZ workforce who speak different languages and for whom mandatory HIV testing is imposed. These challenges may have biased some findings.

In spite of respondents' high levels of awareness of HIV/AIDS and their knowledge of condoms and prevention methods, a significant number engaged in non-regular and commercial sex, persistent behavior that suggests that heightened awareness has not always translated into safe sex practices.

Despite the availability of correct information about AIDS transmission, stigma and discrimination against PLWHA are widespread. This suggests that those infected and affected by HIV/AIDS are not well accepted in many communities. If not addressed, stigma and negative attitudes may pose an obstacle to behavior change and to care and support programs for PLWHA. Program interventions like those offered by FGAC can contribute to reducing stigma and discrimination. Though most female workers in QIZs said they would not share meals or work alongside PLWHA, most male respondents in the QIZ workforce were willing to do so. These favorable attitudes may have resulted from FGAC activities.

The misconceptions that respondents held about HIV/AIDS and HIV transmission tend to be compounded by stigma and discrimination and quite often lead to unknowing risky behaviors. Any future program should address these misconceptions and focus on messages concerning abstinence and being faithful, since many respondents did not think that these practices protect against HIV/AIDS.

Access to VCT was high. Many respondents said they knew of VCT services, and many had been tested and knew their results. This is not surprising, since an HIV test is required for non-Jordanians seeking to live and work in the country. Some workers in small business are seeking voluntary HIV testing, and there is still room to make the test more accessible and address the stigma that makes people reluctant to be tested.

The program has increased access to prevention services (condoms, peer education, and VCT), and it has been somewhat effective. Although its coverage seems low, comparisons between respondents exposed to interventions with those not exposed reveals increased awareness of the exposed of male condoms and more accurate knowledge of modes of HIV transmission. A future program might have more impact if it focused on increasing the current program's coverage and intensity and paid more attention to workers in small businesses.

This survey provides valuable baseline information. Its findings can be used to redesign and improve interventions and to renew efforts to curtail the spread of HIV/AIDS in Jordan, especially among workers in QIZs and small business. To do this, interventions need to be continued and KAP surveys conducted among the same target groups every two or three years. Additionally, more research—both quantitative and qualitative—is needed to provide insight into the causes of some risky sex behaviors and to identify barriers to adopting healthier behaviors.

Recommendations

The interventions should continue with a focus on the following recommendations:

- 1. *Support a coordinated information, education, and behavior change communication strategy focused on reducing stigma and discrimination and misconceptions about HIV/AIDS.*** Even where HIV knowledge is high, sexual behavior will probably not change dramatically as long as people harbor false beliefs or consider themselves immune to HIV/AIDS. There is a need for an integrated strategy that combines information, education, and strategic behavior change communication, with appropriate messages for the target groups surveyed. The strategy should focus on encouraging abstinence and faithfulness, reducing the number of sex partners, promoting the proper use and consistent availability of condoms, and supporting VCT services. The most effective interventions include a combination of mass media, drama, music, person-to-person interactions and peer education, counseling and education, and posters. These are the interventions that have been suggested by members of the target groups themselves.
- 2. *Promote consistent condom use among workers in QIZs and small businesses.*** In the low-grade epidemic in Jordan, convincing sexually active persons to use condoms consistently with non-regular partners and commercial sex partners is perhaps the greatest challenge for organizations promoting HIV/AIDS awareness and safe sex. Many interventions are needed, including education of peer groups,

promotion of proper use and consistent availability of male condoms, and potentially the introduction of female condoms.

3. *Develop a strategy to reduce stigma and discrimination.* Stigma and misconceptions about HIV/AIDS are widespread among the targeted groups. Stigma associated with HIV discourages people from learning their HIV status, hampers efforts to provide proper care, and causes great hardship for PLWHA. Reducing stigma and discrimination will improve the quality of life of PLWHA and bolster efforts to prevent further spread of the epidemic. Mass media information and education activities, peer education, and strategic behavior change communication should address stigma, correct misconceptions, and enhance behavior change.
4. *Promote and increase access to VCT services.* Studies indicate that VCT services can be cost effective in preventing HIV transmission and constitute an important entry point to the care and prevention continuum. The promotion of these services should emphasize confidentiality.
5. *Measure behavior at regular intervals and design appropriate interventions.* This survey offers valuable baseline information on HIV/AIDS knowledge, attitudes, and behaviors. Findings should be used to redesign and improve interventions, and a KAP survey should be repeated at least every two years to measure success. Qualitative data collection would help to better understand and interpret quantitative data and further the design of appropriate behavior change communications messages.
6. *Address the communication and language issues among workers in QIZs.* The survey revealed that QIZ workers are mostly from Sri Lanka and Bangladesh, and communication material and programs that are developed should take this into account. It might be effective to develop materials that address language barriers. More co-workers should be trained as peer educators to provide services onsite.
7. *Maximize the utilization of findings:* Study findings should be disseminated to FGAC staff, peer educators, and factory managers. Data need to be valued and used as an advocacy tool and to respond to needs of target groups. An in-depth interpretation of the results is strongly recommended before refining interventions. A qualitative study contributes to a better understanding of the issues and concerns that are highlighted by quantitative findings.

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