

## Baseline assessment of community knowledge and attitudes toward drug use and harm reduction in Kabul, Afghanistan

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### Abstract

**Introduction and Aims.** Problem drug use has been identified as a significant public health problem in Afghanistan. The study aim was to assess community knowledge and attitude toward drug use and harm reduction in Kabul, Afghanistan. **Design and Methods.** A cross-sectional convenience sample of community representatives of 10 possible professions were recruited, distributed between the 17 Kabul city districts in 2007. A questionnaire measured sociodemographic characteristics and awareness, knowledge, and attitudes toward drug use and harm reduction. Logistic regression and cluster analysis were performed to test for associations with participant attitude. **Results.** Of 210 participants, mean age was 36.7 years. Most (98.6%) were Afghan and employed (87.6%). Most (88.6%) were aware of problem drug use in Afghanistan, primarily attributed to unemployment. The majority of participants agreed that addiction is a disease (88.6%) and believed more and better treatment and vocational training facilities were needed (90.5%). Use of only punitive measures in response to drug use was favoured by few (7.1%) participants. Only 33.3% of participants could correctly identify legal consequences of drug use. **Discussion and Conclusions.** Community acknowledgement of problem drug use and support for addiction treatment are present in Kabul, Afghanistan. However, knowledge gaps concerning drug laws and harm reduction should be addressed in efforts to introduce culturally appropriate harm reduction programming. [Stanekzai MR, Todd CS, Orr MG, Bayan S, Rasuli MZ, Wardak S-R, Strathdee SA. Baseline assessment of community knowledge and attitudes toward drug use and harm reduction in Kabul, Afghanistan. *Drug Alcohol Rev* 2012;31:451–460]

**Key words:** Afghanistan, harm reduction, community attitude, HIV, injecting drug user.

### Introduction

Problem drug use is increasing in south-central Asia and explosive HIV epidemics among injecting drug users (IDUs) have occurred [1–3]. Harm reduction programs, including those utilising needle and syringe distribution and collection programs (NSPs) and/or opioid substitution therapy, have been demonstrated to

stabilise or reduce HIV infection and associated risk behaviour in a variety of settings [4–7]. Community support for these programs has contributed to their acceptance and use [8,9].

Harm reduction program efficacy is impacted by various factors, including community support. Stigma toward drug users and lack of community support for programs for drug users results in fewer NSPs, resulting

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Received 3 December 2010; accepted for publication 7 August 2011.

in a lower volume of safe syringe exchanges, continued risky injecting behaviour and increasing HIV prevalence [10,11]. Lack of community support has resulted in delayed recognition and response to IDU-driven HIV epidemics, with devastating results [1,12,13]. Settings where police harassment and community disapproval predominate (Indonesia, Russian Federation, Nepal, the USA) have experienced increases in HIV prevalence despite NSP presence [1,6,10]. Conversely, efforts to involve and educate the community on merits of harm reduction have improved both community attitude and program implementation in China and Vietnam [14,15].

Opium has been used for centuries in Afghanistan; however, problem drug use has received much attention in the last decade [16–18]. Burgeoning substance use was described in 2005 and 2009, where trends toward injecting opiates was reported, particularly in urban areas [19]. In this survey, community informant reports were elicited, reflecting rising awareness of drug use in Afghanistan. A qualitative assessment of IDUs in Kabul indicated that drug users perceived stigma and isolation from the community, similar to that encountered by IDUs in other settings [20–22]. However, no corresponding assessment of community knowledge and attitudes has been conducted.

This study aims to assess community knowledge and attitude toward drug use and harm reduction in Kabul, Afghanistan. These data represent the baseline measure for a larger pre/post-study assessing change in community perceptions of problem drug use and support for harm reduction in Afghanistan.

## Methods

### *Setting*

Kabul, the capital of Afghanistan, has an estimated population of approximately 4 million and the highest concentration of drug users nationally [19,23,24]. Kabul city is divided into 17 municipal districts, of which two contained functioning NSPs. During data collection, there were three no-cost treatment programs with a total of 30 beds available for inpatient treatment, consisting of detoxification with limited pharmacotherapy and counselling.

### *Participants*

Eligible participants were aged 18 years or greater and professionals living in Kabul city. Ten professions were selected for purposive sampling, comprising police, harm reduction outreach worker, university official, medical provider, pharmacist, government worker, teacher, religious leader/mullah, *wakili guzar* (community leader) and store keeper. A purposive sample of 210

total participants was recruited, equally distributed by profession and district as possible. Further, women were over-sampled to comprise 20% of participants. The institutional review boards of the University of California, San Diego and the Ministry of Public Health of the Islamic Republic of Afghanistan approved this study.

### *Recruitment and enrolment*

Study representatives went to each district and selected recruitment sites for each profession by proximity to district centre. Study representatives approached potential participants and confirmed profession and employment in that district. Eligible individuals were offered study information and informed consent; no data were collected on those declining participation. Consented participants were assigned a study code number and completed an interviewer-administered questionnaire in Pashto or Dari, the predominant languages of the Kabul area.

### *Questionnaire instrument*

The questionnaire assessed demographics, exposure to drug use, perceptions regarding vulnerability to drug use, knowledge and attitudes toward the appropriate response to drug use, including programmatic responses. Most questions regarding reasons for drug use initiation, types of drug used and types of programs available for drug users were asked in an open-ended fashion, with study representatives selecting the choice stated by the participant. Answer choices were based on common themes emerging from formative work; however, unanticipated participant responses were written into an open-ended box and coded at data cleaning and entry [22]. Knowledge of services for drug users was elicited with the questions, 'Do you know if there are programs for drug treatment available in Afghanistan?' and, with an affirmative response, 'To your knowledge, what types of treatment are available for drug addiction?' with multiple responses possible. Opinions about treatment of drug users were assessed with the question, 'In your opinion, what is the most appropriate way to deal or treat drug users in Afghanistan?'

The attitudes scale was constructed from formative work, including community and religious representatives [22]. Attitudes were measured utilising Likert scale with statements divided into seven thematic groups (Table 1). Statements regarding harm reduction were accompanied by this description: 'A harm reduction program consists of services for people who use drugs to make drug use safer for those not ready or able to stop drug use. Services offered by these programs may include needle and syringe distribution and collection, condom distribution, providing medical care for

**Table 1.** Categories and statements for assessment of drug use and harm reduction attitudes among community participants in Kabul, Afghanistan**Perceptions about visibility of drug use**

Drug use is increasing in Afghanistan.  
 Accessibility of opium and dealing drugs in Afghan society has increased.  
 Injecting drug use is increasing in Afghanistan.  
 Afghan culture is becoming more tolerant of drug use.  
 Drug use in Afghanistan is directly related to the large amounts of opium currently grown.  
 The level of community awareness about drug use in Afghanistan is adequate to address the problem.

**Stigma toward drug users**

Drug addiction is motivated by criminal activity or moral weakness.  
 Drug addiction is a disease.  
 Drug users are a danger to decent people.  
 It is acceptable for families to cease relations with family members who use drugs.  
 There are no circumstances under which drug use is acceptable.  
 Addiction causes people to turn to criminal activity to pay for drugs.

**Perceptions about injecting use**

Injecting drug users increase their risk of health problems by removing their blood and replacing it with drugs.  
 Injecting drugs is worse than other kinds of drug use.  
 Injecting is advised to drug users by doctors to reduce the dependence on drugs.  
 Injecting drug use causes health problems like jaundice.

**Cultural perceptions of drug use**

The greatest threat of drug users in society is the disintegration of the family.  
 Consumption of all intoxicating drugs is prohibited by Islam.  
 Intoxicating substance use should be allowed in extreme cases of physical or psychological pain.  
 Joblessness increases the risk someone will start using drugs.  
 Women are more likely to use drugs as they are more easily influenced to pursue wrong behaviour.  
 Afghan society and Islam both regard drug use to be a sin.

**Treatment for drug users**

Only religious leaders should help drug users through intensive prayer sessions.  
 Drug treatment centres should be established to help those with addiction.  
 It is appropriate to use *zakat* money for the establishment of drug addiction treatment.  
 Only families are obligated to get help and treatment for family members who use drugs.  
 Only the government is obligated to provide treatment services for people who use drugs.  
 Only religious leaders should decide what treatment is most appropriate for drug users in Afghanistan.

**Culturally appropriate prevention approaches**

Eradication of poppy crops alone will be sufficient to control opium use in Afghanistan.  
 Community messages stating, 'Say no to drugs' alone will be sufficient to prevent drug and alcohol use in Afghanistan.  
 The entire community should be educated about the harms of drug use to adequately prevent an increase in drug use.  
 Religious leaders and teachers should use their influence to increase community awareness for drug use prevention.  
 Police should be a priority group to receive educational programming about how to behave toward drug users.

**Environmental comfort with harm reduction programming**

I would be comfortable if a harm reduction centre opened near my home.  
 I would be comfortable participating in a program to help drug users.  
 I am comfortable speaking with or praying next to drug users.  
 I approve if any member of my family were to work with a program to help drug users.  
 I would be willing to hire or work with a former drug user.

abscesses and overdose, or counselling and testing for various infections.' Scores were generated for each group to allow comparison by demographic factors.

The draft instrument was pretested in the field for content and face validity; accuracy of final changes was assessed through back-translation by the study manager and principal investigator.

*Analysis*

Descriptive statistics were generated for demographics and exposure to and perceptions about drug use, using

proportions. Answers to open-ended questions on treatment of drug users were coded based on themes emerging from the data and grouped into four categories: punitive; medical treatment; improvement in social status (e.g. vocational training); and acceptance of drug use with supportive care (e.g. NSP programs). One analyst performed coding and responses were not restricted to one category. For each thematic variable, distribution by profession was compared using  $\chi^2$ -test.

Attitudes toward drug use and treatment were measured with Likert scales, with means generated for each item. Attitudes were assessed by level of agreement and

participant consensus. Our approach to consensus is a variant on the Delphi method, a method that elicits expert opinion to establish best practices through emergent consensus. This method uses relatively small sample sizes and relies on lived experience of experts in the field for recommendations for which scientific evidence may be lacking [25–27]. Studies to date utilising this method use both 80% and 90% as levels of consensus; some cite the area between 80 and 90% as ‘approaching consensus’ [28]. This study takes a different position by treating participants as subject matter experts to arrive at consensus attitudes that will in turn guide programmatic structure. Agreement was defined as entering ‘agree’ or ‘strongly agree’ and disagreement defined as entering ‘disagree’ or ‘strongly disagree’ for a given statement. Items with less than 20% of participants differing from the majority were considered to have consensus; we selected the 80% mark to highlight the most controversial positions [29,30]. We acknowledge that this decreased the number of statements analysed and may potentially eliminate some small homogeneous groups if all were of the same opinion, but also wanted to focus on the most meaningful areas for initial programmatic recommendations. Dichotomous variables were generated for statements for which there was a 20% or greater dissenting opinion (either in agreement or disagreement), which were separately analysed to determine demographic or professional associations using logistic regression analysis controlled for sex.

Cluster analysis was performed to explore whether any regularities in patterns of responses existed among conceptually related question sets. The partitioning cluster method, ‘pam’, was implemented in the R programming language [31]. Pam searches for  $k$  objects, called medoids, among all of the objects within the dataset ( $k$  is predetermined). The medoids are selected to minimise total dissimilarity of all objects to their closest medoids. To determine whether a clustering solution showed significant structure, the average silhouette width ( $asw$ ) of the clustering solution was used as the criterion metric; the cut-off for significant structure was  $asw > 0.50$  [27].

All calculations were performed with Stata 10.0 (Stata Corporation, College Station, TX, USA) except for the cluster analysis, which used R 2.4.1 (GNU Project, <http://www.gnu.org>).

## Results

### *Sociodemographics*

Of 250 people approached, 210 agreed to participate. The mean participant age was 36.8 years, 22.4% ( $n = 47$ ) were female, and 98.5% were Afghan. Most

were employed full- (71.0%) or part-time (16.7%); 12.4% were unemployed. Table 2 contains information about professions, with significant differences indicated.

### *Participant awareness of and perceptions regarding drug use in Afghanistan*

Most (86.7%) participants had seen or knew of drug users; a few (9.3%) reported having a relative who used intoxicants. When queried about drugs used in Afghanistan, participants believed marijuana was the most commonly used drug (43.3%), with opiates (26.7%), tobacco (18.5%) and alcohol (10.5%) also listed. Most participants believed unemployed people (88.1%) were the most vulnerable to initiating drug use, followed by street children (5.7%) and workers in opium processing factories (2.4%); prisoners, former and current soldiers, orphans and those with disabling injury were also mentioned. Participant perceptions regarding reasons for initiating drug use were assessed with multiple answers allowed; of 466 responses, frustration over unemployment (30.3%), enjoyment of intoxicated state (16.7%), peer pressure (14.4%) and grief over loss of family or home (11.1%) were stated most frequently. Of note, unemployed participants were significantly more likely to state that lack of employment was a reason to initiate drug use ( $P = 0.043$ ), but did not significantly differ from employed participants in the belief that unemployed people were most vulnerable to drug use.

Participants believed the main risks of drug use were largely health-related (cumulatively 57.9%; multiple responses allowed, 271/468), including overdose (21.4%), withdrawal (21.6%) and infection (15.0%); other risks mentioned were family disapproval and isolation (23.9%), violence and crime from dealers (6.6%), and prison (7.3%).

### *Knowledge regarding legal status of drug use*

Most (60.0%) participants were not aware that drug users must be provided drug treatment (if available) for the first offence with recidivism resulting in incarceration, and 6.7% provided no response.

### *Knowledge of and attitudes toward harm reduction*

Most (90.4%) participants were aware of programs available to drug users. Types of programs mentioned most frequently were inpatient (47.8%, 218/456 total responses; multiple responses allowed) and outpatient treatment programs (16.2%), religious instruction (13.6%), medications from pharmacists (13.2%), harm reduction/NSPs (9.4%) and detoxification programs



**Table 2.** Demographic characteristics by professional cadre among a community sample in Kabul, Afghanistan, 2007 (n = 210)

Profession (n)	Age (years) (Mean $\pm$ SD)	Male (%, n)	Married (%, n)	Higher education (>secondary school) (%, n)	Born in Kabul area (%, n)	Lived outside country last 5 years (%, n)
Shop owner (25)	39.6 $\pm$ 11.9	76.0%, 19	80.0%, 20	28.0%, 7	83.3%, 20	32.0%, 8
Medical provider (19)	34.6 $\pm$ 11.0	79.0%, 15	68.4%, 13	36.8%, 7	100%, 19	26.3%, 5
Government official (17)	41.0 $\pm$ 10.5	64.7%, 11	100.0%, 17	41.2%, 7	76.5%, 13	29.4%, 5
Teacher (25)	38.4 $\pm$ 9.5	84.0%, 21	88.0%, 22	36.0%, 9	72.0%, 18	24.0%, 6
University official (21)	35.6 $\pm$ 10.1	85.7%, 18	71.4%, 15	38.1%, 8	71.4%, 15	33.3%, 7
Pharmacist (15)	33.3 $\pm$ 9.6	53.3%, 8	66.7%, 10	20.0%, 3	93.3%, 14	20.0%, 3
Wakil/community leader (19)	36.1 $\pm$ 12.9	84.2%, 16	63.2%, 12	31.6%, 6	79.0%, 15	21.1%, 4
Police (24)	33.3 $\pm$ 11.7	66.7%, 16	70.8%, 17	41.7%, 10	79.2%, 19	20.8%, 5
Mullah/imam (11)	37.6 $\pm$ 14.9	90.9%, 10	81.8%, 9	63.6%, 7	81.8%, 9	27.3%, 3
Harm reduction worker (34)	36.6 $\pm$ 8.2	85.3%, 29	79.4%, 27	61.8%, 24	88.2%, 30	17.6%, 6
Other (6)	31.3 $\pm$ 14.2	66.7%, 4	66.7%, 4	66.7%, 4	100.0%, 6	33.3%, 2

(5.7%). The open-ended assessment of attitudes was gauged through two routes: appropriate policy response and description of which services are needed. When asked about the appropriate government response to drug users, most participants identified need for more treatment programs (28.1%), better quality of treatment (12.3%), or job training (24.8%). Some (16.4%) endorsed increasing Islamic teachings forbidding intoxicants. Recommendations for punitive measures were uncommon, with 4.9% endorsing increasing police at sites of drug user congregation and 2.2% endorsing imprisonment and lengthening sentences. Harm reduction, like NSP services (4.0%) and provision of condoms, counselling and infection testing (4.0%), was rarely endorsed.

An open-ended question was also used to elicit participants' personal opinions regarding the most appropriate way to deal with drug users. Participants favoured medical treatment (49.5%) or lifestyle modifications (25.2%). Few (8.8% and 16.4%) advocated supportive care or punitive measures, respectively, with medical providers less likely to advocate treatment (odds ratio = 0.19, 95% confidence interval: 0.06–0.59).

#### Attitude scale results

Participants were read 38 statements for which they indicated a level of agreement, measured by Likert scale. For 18 statements, there was clear consensus and an additional 13 approached consensus; Table 3 lists the statements and level of consensus. Dissent (i.e. >20% opposing majority opinion) was present for seven statements, whose answer distribution and associated traits are displayed in Table 4. Sex, educational level and profession impacted level of agreement with these statements, while employment status did not. Police were more likely and shop owners less likely to be comfortable speaking with or praying next to a drug user. Pharmacists were more likely to disagree that the government is the only responsible party for provision of drug treatment services.

#### Cluster analysis

In the cluster analysis, we separately focused on each thematic group identified in response to the question of how drug users should be treated. Within each group, three cluster analyses were run using  $k$  of 2, 3 and 5, respectively. None of the 21 clustering solutions across all seven thematic group sets yielded an average silhouette width >0.50; thus, further analyses were not pursued.

**Table 3.** Statements conveying attitude toward drug use and harm reduction with group consensus among community representatives in Kabul, Afghanistan (n = 210)

Statement	Consensus position and level
1. Drug use is increasing in Afghanistan.	Agree, 96.2%
2. Accessibility of opium and dealing drugs in Afghan society has increased.	Agree, 92.4%
3. Injecting use is increasing in Afghanistan.	Agree, 73.8%
4. Afghan culture is becoming more tolerant of drug use.	Disagree, 85.2%
5. Drug use in Afghanistan is directly related to the large amounts of opium currently grown.	Agree, 75.2%
6. The level of community awareness about drug use in Afghanistan is adequate to address the problem.	Disagree, 78.1%
7. Drug addiction is motivated by criminal activity or moral weakness.	Agree, 84.8%
8. Drug addiction is a disease.	Agree, 88.6%
9. Drug users are a danger to decent people.	Agree, 93.8%
10. There are no circumstances under which drug use is acceptable.	Agree, 84.3%
11. Addiction causes people to turn to criminal activity to pay for drugs.	Agree, 96.7%
12. Injecting drug users increase their risk of health problems by removing their blood and replacing it with drugs.	Agree, 90.0%
13. Injecting drugs is worse than other kinds of drug use.	Agree, 80.5%
14. Injecting is advised to drug users by doctors to reduce the dependence on drugs.	Disagree, 73.8%
15. Injecting drug use causes health problems like jaundice.	Agree, 82.4%
16. The greatest threat of drug users in society is the disintegration of the family.	Agree, 89.5%
17. Consumption of all intoxicating drugs is prohibited by Islam.	Agree, 96.2%
18. Joblessness increases the risk someone will start using drugs.	Agree, 95.2%
19. Afghan society and Islam both regard drug use to be a sin.	Agree, 96.7%
20. Drug treatment centres should be established to help those with addiction.	Agree, 95.2%
21. It is appropriate to use <i>zakat</i> money for the establishment of drug addiction treatment.	Agree, 83.3%
22. Only families are obligated to get help and treatment for family members who use drugs.	Disagree, 75.2%
23. Only religious leaders should decide what treatment is most appropriate for drug users in Afghanistan.	Disagree, 87.6%
24. Community messages stating, 'Say no to drugs' alone will be sufficient to prevent drug and alcohol use in Afghanistan.	Disagree, 83.3%
25. The entire community should be educated about the harms of drug use to adequately prevent an increase in drug use.	Agree, 94.3%
26. Religious leaders and teachers should use their influence to increase community awareness for drug use prevention.	Agree, 87.2%
27. Police should be a priority group to receive educational programming about how to behave toward drug users.	Agree, 83.8%
28. I would be comfortable if a harm reduction centre opened near my home.	Agree, 75.2%
29. I would be comfortable participating in a program to help drug users.	Agree, 94.3%
30. I approve if any member of my family were to work with a program to help drug users.	Agree, 77.1%
31. I would be willing to hire or work with a former drug user.	Agree, 81.0%

## Discussion

Our data indicate that community participants are aware drug use is a public health problem in Afghanistan and generally support specific programming to assist drug users. When discussing how drug users should be approached, addiction treatment and vocational training were most frequently named, potentially reflecting desire for a definitive solution and acknowledging drug use as a medical problem. However, a minority supported punitive actions; this belief has inhibited harm reduction programming in multiple settings where police interference prevents access and use of services [6,10].

Most participants agreed that drug use is increasing, consistent with 2009 survey results [19]. Many participants linked this to the increasing amounts of available opium, although opium was believed to be the second most common drug of abuse, nearly as common as tobacco. This impression diverges somewhat from national drug use data, where tobacco, pharmaceutical drugs and marijuana were more commonly used than opiates [17]. However, 2009 data suggest that lifetime opioid and marijuana use are most prevalent; tobacco was not discussed [19]. In the opinions of most participants, drug use appears to be heavily linked to economic status as depression/frustration over lack of job was the most frequent reason stated for drug use initiation.

**Table 4.** Attitudes towards drug use with substantial dissent and their associated predictors among community representatives in Kabul, Afghanistan (n = 210)

Statement 1: Only the government is obligated to provide treatment services for people who use drugs.		
Distribution of agreement	<i>n</i>	%
Strongly disagree	17	8.10
Disagree	85	40.48
Neutral	3	1.43
Agree	42	20.00
Strongly agree	63	30.00
Statement 2: Only religious leaders should help drug users through intensive prayer sessions.		
Variable	<i>n</i> , % dissenting opinion	AOR, 95% CI
Age	(Mean) 38.6 years	0.97, (0.94–0.99)
Male sex	70, 42.9%	0.35, (0.18–0.70)
Secondary education or higher	73, 54.1%	1.87, (1.05–3.32)
Pharmacist	12, 80.0%	4.67, (1.28–17.06)
Statement 3: Women are more likely to use drugs as they are more easily influenced to pursue wrong behaviour.		
Distribution of agreement	<i>n</i>	%
Strongly disagree	29	11.90
Disagree	69	32.9
Neutral	14	6.7
Agree	47	22.4
Strongly agree	55	26.2
Predictor	<i>n</i> , % dissenting opinion	AOR, 95% CI
Male sex	62, 38.0%	0.29, (0.14–0.57)
Secondary education or higher	71, 52.6%	2.51, (1.38–4.55)
Statement 4: Intoxicating substance use should be allowed in extreme cases of physical or psychological pain.		
Distribution of agreement	<i>n</i>	%
Strongly disagree	35	16.7
Disagree	73	34.8
Neutral	50	23.8
Agree	29	13.8
Strongly agree	23	11.0
No identified correlates.		

**Table 4.** (Continued)

Statement 5: Eradication of poppy crops alone will be sufficient to control opium use in Afghanistan.		
Distribution of agreement	<i>n</i>	%
Strongly disagree	45	21.4
Disagree	46	21.9
Neutral	58	27.6
Agree	25	11.9
Strongly agree	36	17.1
No identified correlates.		
Statement 6: It is acceptable for families to cease relations with family members who use drugs.		
Predictor	<i>n</i> , % dissenting opinion	AOR, 95% CI
Greater than secondary education	61, 45.2%	0.61, (0.35–1.08)
Shop owner	7, 29.2%	0.38, (0.15–0.95)
Statement 7: Government workers should be allowed to use drugs in extreme cases of physical or psychological pain.		
Distribution of agreement	<i>n</i>	%
Strongly disagree	40	19.1
Disagree	79	37.6
Neutral	23	11.0
Agree	29	13.8
Strongly agree	39	18.6
Predictor	<i>n</i> , % dissenting opinion	AOR, 95% CI
Age	(Mean, years) 40.6	1.05, (1.02–1.08)
Government workers	2, 11.8%	0.26, (0.06–1.16)

**Table 4.** (Continued)

Statement 7: I am comfortable speaking with or praying next to drug users.		
Distribution of agreement	<i>n</i>	%
Strongly disagree	27	12.9
Disagree	19	9.1
Neutral	28	13.3
Agree	58	27.6
Strongly agree	78	37.1

  

Variable	<i>n</i> , % dissenting opinion	AOR, 95% CI
Male sex	41, 25.2%	2.82, (1.05–7.62)
Police	1, 4.2%	0.14, (0.02–1.04)
Shop owner	9, 37.8%	2.42, (0.98–5.95)

AOR, adjusted odd ratio; CI, confidence interval.

These reasons are similar to those stated by IDUs themselves and may reflect some common ground on which to base community-directed interventions [22].

However, participants seemed relatively unsupportive of harm reduction, potentially representing lack of knowledge or misconceptions about harm reduction. Harm reduction has been introduced successfully in several predominantly Islamic societies and efforts are underway to introduce this programming in Afghanistan, with three NSPs operating in Kabul city at the time of this study [9,32–34]. This assessment was performed in 2007, at which time public announcements regarding drug use or harm reduction services were limited. Harm reduction programs relayed that they have encountered little resistance from communities within districts of operation; efforts to acquaint community leaders with the purpose of services preceded program operations in all cases. However, a substantial minority of participants, particularly those with little formal education, felt prayer was the best way to deal with drug addiction; this belief may necessitate a culturally modified harm reduction model containing religious instruction and counselling components. Several Kabul harm reduction programs currently incorporate organised prayer, religious teaching and motivation from local mullahs within the service spectrum, thus involving the religious community in the treatment process.

There were few significant differences in dissent among attitude statements by age, gender and education. Further, profession had little impact upon attitude measure diversity. It is surprising the medical providers and harm reduction workers were not significantly dif-

ferent in their stance on intoxicants for pain control or in comfort interacting with drug users. Community education efforts should address possible bias among these care providers to ensure better service delivery. Small numbers of each profession, particularly harm reduction workers, may have prevented detection of possible associations.

Police were more comfortable interacting with drug users, which may be related to the position of power they have over this group. This observation underscores concerns previously voiced by drug users in Kabul regarding police harassment [22]. Programs focused on raising awareness about drug users among police were conducted in Kabul up to 2006, and a new program has been initiated. However, frequent turnover in police staffing have potentially limited the effects of past programs and are being considered in the design of the impending program (Vandecasteele O, 2011, personal communication).

Pharmacists were less likely to disagree that the government is obligated to assist drug users. Pharmacists have a dual concern, as drug users are potential clients, for purchase of mixing agents like pheniramine maleate or syringes, yet pharmacies increasingly act as agents of government enforcement by refusing to sell syringes to drug users. Those with a higher educational level were more likely to disagree that the government has the sole responsibility in providing treatment services to drug users. This observation is likely due to greater awareness of limits to government services and ability to afford services in the private sector.

Some important limitations to this study must be considered. First, the intended repeat measures for this study limited sample size, which, when divided into small groups (e.g. professions), limited power to detect differences. Next, some professions, particularly university officials and harm reduction workers, were under-sampled in some districts due to lack of profession-specific facilities in that district. Last, questionnaires were administered by study representatives, potentially resulting in socially desirable response for some of the attitude questions. Additionally, the study representatives were charged with selecting answers matching the words of the respondents for close-ended multiple choice questions and directly transcribing the responses for open-ended questions or answers not reflected by the choices for close-ended questions. It is possible some of these exchanges involved a misunderstanding or may have carried some bias from the study representative. The study staff were extensively trained prior to study start and were periodically monitored in the field by the study manager, limiting this possibility.

This study presents a hopeful picture for community integration into programs designed to assist and treat



drug users in Kabul. However, there are gaps in knowledge of legal treatment of drug users and services available to drug users. The key findings underscore the need for harm reduction funding to include community participation efforts. Further, the community plays an important role in assisting drug users to reintegrate with their families, the social support unit critical to maintaining motivation to enter and complete treatment [35].

## Acknowledgements

The authors thank the Ministries of Counter Narcotics and Public Health, the Medicins du Monde, Nejat, and OTCD/Zindagi Nawin harm reduction programs, and the International Rescue Committee, Afghanistan, for assistance with study facilitation. We also thank our participants for their time and trust. This study was supported by the Doris Duke Charitable Foundation.

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