2ND GENERATION HIV SURVEILLANCE IN PAKISTAN
ROUND 5

MAPPING KEY POPULATIONS IN PAKISTAN 2015-16

OCTOBER 2016.

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FOREWORD

The Mapping rounds followed by the integrated biological and behavioural surveillance (IBBS) rounds in the country have been instrumental in providing policy makers, program planners and implementers with up-to-date epidemiological evidence to steer the HIV response in the direction of maximum impact. In resource constraint settings evidence based targeted approaches, contextually tailored to the needs of the infected and affected populations are required to efficiently deliver services and curb the spread of infection. The mapping of key populations has been complimented by Asian Epidemic Modelling exercises for obtaining population size estimations and also to develop high impact intervention scenarios based on best practices for efficient and effective use of resources.

The IBBS Round 5 was successfully conducted by the National AIDS Control Program (NACP) under stewardship of the Ministry of National Health Services, Regulations and Coordination (Mo NHSRC), Government of Pakistan. The Ministry lauds the untiring efforts of the technical and implementing partners in carrying out this tedious exercise with high degree of professionalism, zeal and enthusiasm. The Mo NHSRC appreciates Dr. Mamadou L Sakho UNAIDS Country Director for Pakistan and Afghanistan for his continuous support, technical advice and operational guidance in conducting the field activities. Funding support from the Global Fund and UNAIDS is sincerely acknowledged in carrying out this activity of utmost national importance. The support of development partners, including, UNICEF and UNFPA is also deeply acknowledged.

The Ministry of National Health Services, Regulation & Coordination takes the opportunity to appreciate the dynamic leadership of Dr. Abdul Baseer Khan Achakzai, National Program Manager, NACP for the successful completion of mapping of key populations in the country. The interest and active role played by Dr. Achakzai and his team including Dr. Sofia Furqan, Dr. Quaid Saeed and Dr. Saima Paracha in the planning, implementation and monitoring of surveillance activities are greatly acknowledged.

The Mo NHSRC is also grateful to the non-governmental organizations, community representatives and members of the key populations who took part in the survey and rendered valuable inputs in terms of time and efforts.

The Mo NHSRC hopes that the data obtained from the mapping would be intelligently used by the policy makers, program managers and public health specialists to target the interventions where the epidemic is concentrated to yield value for money and control the spread of the epidemic.

Dr. Assad Hafeez
Director General (Health)
Ministry of National Health Services, Regulations & Coordination
Government of Pakistan

ACKNOWLEDGMENTS

The Integrated Behavioural and Biological Survey (IBBS Round V) conducted in 2016-17 was a landmark achievement for Pakistan that provided real time epidemiological evidence of the HIV AIDS behaviourial, incidence and prevalence trends in the country. The information will serve to guide the policy makers and programmers to devise precision-targeted, high impact, population specific, cost effective strategies to curb and control the spread of HIV in the country.

Mapping is an important phase of field activities that contributes to the IBBS process by generating relevant data on numbers and hotspots of key populations' activities that provides reliable population size estimates and projections for future program planning at the national and sub-national levels. UNAIDS commends the efforts of the Technical Working Group particularly, focal persons from UNICEF, WHO and UNFPA, as members of think tank of HIV experts for their valuable inputs in steering this exhaustive process of National scale geographic mapping conducted in 23 big cities of the country with sound planning, coordination, implementation and monitoring.

UNAIDS takes the opportunity to laud the leadership and stewardship of NACP for the successful completion of the mapping round in the country. Dr. Abdul Baseer Khan Achakzai and his team including Dr. Sofia furqan, Dr. Quaid Saeed and Dr. Saima Paracha provided valuable inputs and timely guidance to the field teams, implementing and technical units to efficiently complete the process.

UNIADS appreciates the support of UNICEF, UNFPA, Global Fund and other partner organizations in making the surveillance round a success. The hard work and efforts of Bridge Consultants, Bahria University and University of Manitoba is acknowledged in successfully conducting the mapping phase of the R-5 and tactfully handling the challenging scenarios at various stages of the project. UNAIDS expresses gratitude to the Pakistan Health Research Council (PHRC) for providing a professional review of the study protocol and granting ethical approval to carry out the study.

UNAIDS would also like to thank the field teams, community leaders and members as well as respondents involved in various stages of the mapping for their time, to respond to the lengthy questionnaires with great patience and facilitate the overall process.

UNAIDS hopes that the mapping report will help to geographically prioritize and implement contextually appropriate, evidence based, focused, targeted, high impact interventions to control the spread of HIV epidemic in the country.

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EXECUTIVE SUMMARY

Programmatic mapping is the systematic identification of locations where key populations congregate and estimation of their size. Mapping is largely based on a geographic approach, supplemented by mapping of network operators of female sex worker (FSW). While geographical mapping emphasizes on locations and spots where key population members congregate, network mapping focussed on the promoters and mediators of sex work and mapped networks through which female sex workers operate. Virtual Mapping mapped web based sites and applications used by MSMs to seek sexual and social links. Although the exercise followed previous mapping studies and was used in a similar approach, a few variations need to be noted. Hijra Sex Workers were replaced by Transgender population, while rather than mapping Male sex workers only, a broader category of MSM was mapped. The case definitions and population parameters for FSWs and PWIDs remain unchanged.

The overall objective of this mapping study was to update population size estimates of selected key populations (PWID, FSWs, MSM & TGs) to create evidence for developing action plans for HIV prevention interventions in Pakistan. A total number of 23 cities/towns were selected for Mapping. This included 13 cities in the Punjab province, 6 in Sindh Province and 2 cities each in KPK and Baluchistan provinces. A total number of 17,389 L1 interviews were conducted through interviewing Secondary KIs across the 23 cities mapped. While L1 focused on gathering information on 'hotspots' and places where risk activities take place, 'Level Two' consisted of validating this information, through visiting "hot spots", and interviewing members of key populations present at those spots. This process, called 'spot profiling' or L2 interviews, involved primary key informants (key population members and those closely related, including FSWs, MSM, pimps, madams, brokers, etc.), and focused on validating the information collected and collated in the L1 exercise. A total number of 13,209 L2 interviews were conducted as part of the geo-mapping approach. An additional 1100 interviews were conducted with network operators (FSW pimps) around the country to inquire about the girls who work through sexual networks managed by pimps and network operators.

The National AIDS control program (Ministry of National Health services and regulations) along with the Provincial AIDS control Programs were responsible for the effective implementation of the surveillance round in close consultation and coordination with UNAIDS, GFATM and all other UN agencies. The overall coordination support was provided by UNAIDS Country Program in Pakistan in partnership with the GFATM office. Field implementation and data collection was done through a consortium of multiple partners with a rich technical background in the field of second generation HIV surveillance, selected through a competitive process, using international procurement guidelines. The selected organizations, Bridge Consulting Services and Bahria

University Islamabad were trained on the protocol and research procedures for the entire field implementation and data collection by the Centre for Global Public Health (CGPH), University of Manitoba, Canada and its local technical team in Pakistan, which provided technical support to this study. A monitoring system was developed to track the progress of the study as well as ensure that quality surveillance data was collected. A field monitoring team was hired by NACP in consultation with the Provincial AIDS Control Programs which vigilantly tracked the operations of Mapping and IBBS activities and provided regular feedback to NACP and the technical working group.

Following are the results of this study:

People who inject drugs (PWID):

Mapping of PWID was conducted in only 14 cities in Pakistan. A few major cities in Punjab, which included Lahore, Faisalabad, Sargodha, Multan etc., were not included in this study. Thus results of this study, specifically for Punjab, should be extrapolated with caution, as some of the major cities where high prevalence of drug injecting is not included. The mapping study estimated 37,137 (range; 31,138 to 41,752) people who inject drugs spread over 7401 spots in 14 cities of Pakistan. Of the total estimated number of PWID mapped, almost two thirds were reported from Karachi, Bahawalpur reported the second highest estimated number of PWID, and the third largest estimate was reported from Hyderabad. A very insignificant number of Female PWID were reported in the mapping exercise; only 44 female PWID were reported from 19 spots, giving it an average of 2.1 female PWID per spot. The highest numbers of spots were street based, where 81% of the PWID congregate. Street based spots mainly comprised of public places, on the street, in parks, vacant grounds, under bridges, outside shops, near markets, at public transportation location. Cemeteries or abandoned buildings were the second most frequented spot, reported by 9% of the PWID. Private residence/homes made only 4% of the spots for PWID, thus home based PWID remains a very small proportion of the overall PWIDs in Pakistan. The mapping process revealed a wide variation in spot sizes by city. The largest spots were reported in Mirpurkhas and Larkana at approximately 9 and 8 PWID per spot respectively, showing larger networks of PWIDs. Jhelum, Bannu and Rawalpindi had the smallest spot sizes at approximately 3 PWID per spot. Among those PWIDs who inject at more than one spot, the average number of spots that each PWID injects at was reported to be 1.7 spots. Most of the spots were reported to have cyclic timing, usually 2 to 3 times a day (in the morning, evening and night) when PWID visit these spots, congregate and inject drugs

Female Sex workers (FSWs)

Mapping of FSWs was also conducted in 18 cities in Pakistan, and a few cities in Punjab, were not included in this study. Female sex workers (FSWs) form one the largest key populations with an

average estimated number of 64,829 (range 70,428 to 57,734) SWs spread over 4,514 spots in the 18 cities mapped. Karachi has the highest number of FSWs (avg=25,191) which made 39% of the total sex workers in the cities mapped. Karachi was followed by Sheikhupura (avg=6,252) and Bahawalpur (avg=6,201). A number of operational typologies were defined based on the way sex workers operate and interact with their clients and peers. The main typologies reported in the course of this mapping exercise were KK based (20,964 to 24,170; 36%), followed by residence or home based (17,272 to 20,726; 29%), cell phone based (9,303 to 12,181; 17%) and street based FSWs (7,901 to 10,347). In addition, hotel/massage based sex workers (1,567 to 2,052) distributed over 300 massage parlors/hotels; FSWs operating at various brothels (727 to 952) were also seen. The distribution of sex work has strong implications on prevention programs providing evidence on where prevention programs should focus.

Network mapping, maps various network operators (pimps, aunties, madams) in a city, using the same principles of geo-mapping. More than 1100 interviews were conducted with NWOs around the country to inquire about the number of girls each NWO works with and the number of Kothi khana's they manage. More than 1000 kothikhana's were visited and information was gathered to understand the dynamics of this SW typology and use this information to develop estimates for KK based FSWs. Results showed that an average number of 6 girls are reported to work with a network operator with an average number of 2.7 home based and 3.3 KK based FSWs working with each NWO. While weekends (Friday, Saturday and Sunday also) are the peak days of operation for spots (especially street based, kk based, brothels, establishments etc.,), evenings were the timings where most FSWs would visit spots.

Transgender Populations

Size estimate for Transgender population was obtained through adopting the geographical approach whereby all geographical locations where TGs could congregate were mapped. The average number of TGs estimated in the 23 cities mapped were 31,790 ranging between 26,804 to 36,776 at 9,820 spots. Of the 23 cities in Pakistan, four of the cities had the major concentration of TGs, forming more than 60% of the total estimated number TGs in Pakistan. These cities included Karachi (9,123), Lahore, (3,936), Multan (3,130) and Faisalabad (2,737).

Of the total 9,820 spots identified through this mapping, 4,341 were spots at the streets/open spaces, which formed the largest typology of spots and an estimated number of 31,790 TGs operate through such spots. This was followed by 3,031 Deras mapped with an estimated number of 10,956 TGs. Approximately 6,625 TGs were mapped from 1,798 residential spots. The overall spot size was reported to be small, with 3.2 TGs on an average operating from each spot. City wide analysis showed the largest spot sizes to be seen in Larkana (6.0), Quetta and Turbat (5.9) and Sargodha (5.7), while the smallest ones were reported for Multan (1.9), Bannu (2.2), Mir Pur Khas (2.3) and Gujrat (2.4).

TGs were found to be more mobile as compared to other KPs and use multiple spots. Moreover, there are chances of duplication, because TGs could be living in a dera, and could be counted at street spots as well. To adjust for this duplications (i.e., TGs using more than one spot and thus to eliminate issues of double counting of same TG at different spots) TGs were inquired for how many spots they would usually go to. Almost all TGs from Hyderabad (94.1%) and Mir Pur Khas (94.0%), followed by 90% of TGs from Multan reported using more than one spot to solicit clients. Further analyses shows that TGs in Mirpur Khas and Gujrat reported using 4.7 and 4.6 spots respectively, which was a lot higher than the average number of spots frequented overall.

Although a large proportion of TGs are involved in sex work, NOT ALL TGs sell sex. A little more than 80% of all TGs in Pakistan were reported to sell sex, while in some of the cities mapped almost all TGs are involved in sex work.

Men who have sex with men (MSM)

Two parallel approaches were used for estimating the total number of MSM in Pakistan: Geographical and virtual mapping. Geographic mapping (Geo-mapping) approach used was similar to the geographical approach used for other Key populations, while virtual mapping was done by identifying all websites and mobile applications where MSM connect with each and estimating their size.

In all cities mapped, this study was able to identify a total number of 8,606 geographical spots where an average number of 46,264 (ranging between 39,273 and 53,257) MSM congregate. Karachi reported the largest spot sizes and MSM estimates among the 23 cities mapped with an average number of 18,361 MSM mapped at 3,495 spots. The second largest MSM estimates were identified for Lahore (average of 5,471) followed by Multan (average of 4,265). The overall number of MSM could be much more than what are estimated by this study, which can be due to reduced visibility owing to the overall stigma and discrimination experienced by this key population. The largest proportion of MSM operate through street spots, which form approx. 63% of all geo-spots identified. The second largest typology was Game clubs/ Net cafés with 1327 spots identified that accounted for about 14% of the total spots mapped Hotels and guest houses were the third largest typology of MSM spots (approx 8%) mapped. The majority of hotel and guest house MSM spots were reported from Karachi, Quetta, Sukkhur and Multan. Results show that on usual days (normal week days, non festival days etc.,) the estimated number of MSM are 27% lesser than the numbers which are reported on peak days (weekends, salary days, festivals etc.,) This trend of higher numbers of MSM on each spot on peak days was noticed among all cities mapped, however, the proportion of increase comparative to usual days varied by city.

It is important to recognize that the term "Male Sex Workers – MSWs" is different from MSMs (men who have sex with men). MSWs include males who provide sexual services i.e. anal or oral, to other males in return for money or other financial benefits. The numbers suggest, that the predominant proportion of MSM that are present at geographical spots mapped were Male sex workers (approximately 85%). The cities with the least proportion of the MSM mapped who were Male sex workers were Sialkot, Dera Ghazi Khan and Sheikhupura. On the other hand more than 95% of the MSM mapped informed that they would sell anal sex for money to clients. Some of these cities included Bahawalpur, Hyderabad, Larkana, Multan, Nawabshah, Sukkhur etc., In both mega cities i.e., Karachi and Lahore, approx. 3/4th of the MSM mapped all sell sex to clients.

In addition to the geo-spot based MSM, another 27,986 MSM were estimated using virtual mapping. The highest number of MSM who use internet to look for other MSM were estimated in Karachi (10,404), followed by Lahore (5,232) and Rawalpindi (4,258). It was also noted that a higher proportion of MSM in larger cities (e..g, Lahore and Karachi) used multiple MSM related websites to seek for MSM partnerships, in contrast to smaller cites and towns, where comparatively smaller proportion of MSM used multiple websites. On the other hand, MSM in bigger cities reported having more than one identity on a single website. Among various internet websites used, Facebook, Grinder and Pal Jam/Man Jam are the most utilized websites as reported by the respondents.

Conclusions

As part of utilization of the results, the knowledge gained from this study could be used to develop MACRO-PLANS, to strategize target cities and towns where provision of services would be most effective and cost beneficial. Thus, services should be targeted in cities with highest numbers in each province to reach coverage levels of 80% to 90%. Within cities, mapping data helped identify spots and locations, where risk of HIV transmission is the highest and can help guide the development of a MICRO-PLAN to set up services. The study has also provided an impetus for further research. There is a need to further explore web based MSM and innovative ways are needed to extend prevention services to this hidden segment of the population. It is difficult to fully comprehend the extent and organizational dimensions of this specific group, without a long term engagement and sustained prevention response. While efforts need to be focused on learning more about the epidemic and its driving forces, scaling-up of the current national HIV/AIDS response should be the key objective to contain HIV at its present level.

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