

# REGIONAL ASSESSMENT OF HIV, STI AND OTHER HEALTH NEEDS OF **TRANSGENDER PEOPLE** IN ASIA AND THE PACIFIC





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# Acronyms and abbreviations

AIDS	acquired immunodeficiency syndrome
APCOM	Asia Pacific Coalition on Male Sexual Health
APTN	Asia Pacific Transgender Network
ART	antiretroviral therapy
DSM	Diagnostic and Statistical Manual of Mental Disorders
FSW	female sex workers
FTM	female-to-male
HIV	human immunodeficiency virus
ICD	International Statistical Classification of Diseases and Related Health Problems
IEC	Information, Education and Communication
LGBT	lesbian, gay, bisexual and transgender
MSM	men who have sex with men
MSW	male sex workers
MTF	male-to-female
OHCHR	United Nations High Commissioner for Human Rights
SRS	sex reassignment surgery
STI	sexually transmitted infection
STRAP	Society of Transsexual Women of the Philippines
TG	transgender people
TGM	transgender man
TGW	transgender woman
UCSF	University of California, San Francisco
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
WHO	World Health Organization
WPATH	World Professional Association for Transgender Health



# Executive summary

Transgender people are often defined as people whose gender identity and/or gender expression differs from their biological sex assigned at birth. Transgender people may identify as male-to-female (MTF) or transgender women, female-to-male (FTM) or transgender men, or may simply identify with their gender expression (e.g. male, female), or may not adhere to the gender binary at all. They may engage in sexual activities with people whose gender expression is different from their own, similar to their own or with other transgender people. Understanding of transgender health in Asia and the Pacific is limited and often not documented. Findings from studies conducted in the United States of America and Europe have shown that transgender people are at a significantly higher risk for HIV and sexually transmitted infections (STIs), as compared to gay and heterosexual men.

At the 10th international Congress on AIDS in Asia and the Pacific held in Busan, Republic of Korea, from the 26<sup>th</sup> to the 30<sup>th</sup> of August 2011, Republic of Korea, transgender delegates requested the World Health Organization (WHO) to assess the state of transgender health in Asia and the Pacific. In line with contextualizing the implementation of global and regional guidance by WHO on HIV interventions among men who have sex with men (MSM) and transgender people, the WHO Regional Office for the Western Pacific, in partnership with the Asia Pacific Transgender Network (APTN), commissioned an assessment report on the state of transgender health in Asia and the Pacific.

## Objectives

The objectives of this assessment report are (1) to examine the current state of evidence on transgender health in Asia and the Pacific, (2) to understand the current needs and concerns of transgender communities in Asia and the Pacific and, informed by objectives 1 and 2, (3) to make technical recommendations to WHO and Member States regarding transgender health.

## Methods

1. A systematic review of published literature was done to identify empirical research papers on two major topics relating to transgender health: (1) HIV, STIs and general sexual health, and (2) hormone and silicone use and surgical procedures, including sex reassignment surgery;
2. A semi-structured and open-ended email survey was implemented in partnership with regional network partners of APTN and APCOM to obtain first-hand information from various countries in the Asia Pacific region on the status of health-care services for transgender people, as well as their specific needs and concerns;

3. Using a community –engaged process, four focus group discussions were conducted among 20 male-to-female transgender Filipinas in Manila to triangulate the findings from desk review and the email survey.

## Findings

A systematic review of the literature found that few studies had been conducted among transgender people in the Asia Pacific region. Studies on HIV/STI/sexual health have been mostly centred on MSM, and studies on hormones and surgeries tended to be case studies that described operative procedures of mostly transgender men in Japan. Research studies therefore do not reflect the current realities in many developing countries of Asia and the Pacific, where hormone use may involve self-medication and surgery may be performed by non-licensed, non-professional providers in non-traditional health-care settings. Among countries that have conducted surveillance/prevalence studies among transgender women (e.g. India, Indonesia and Thailand), there was no research on the development and evaluation of interventions or research on how to access transgender people who are already HIV-positive and get them into treatment, care and support. There were no studies from the Pacific islands or studies that investigated HIV/STI risks among transgender men in Asia and the Pacific.

Some informants reported having no access to health-care services at all. In places where there was access, transgender people were subjected to humiliation, stigma and discrimination from health-care providers. Due to costs and lack of medical professionals knowledgeable in transgender health, informants said that they often obtained information from their friends or online. In addition, they often self-medicated with hormones or visited street vendors and other non-licensed providers for silicone injections and other procedures, which included soft tissue body fillers that are often not of human-grade silicone. Further, informants reported that some private HIV testing sites do not provide pre- and post-test counselling. These realities, among others, put transgender people at increased risk for HIV and STI, as well as other harmful effects on their health.

Results of the focus group discussions suggested that self- medication with hormones is a reality among transpinays and access to care providers knowledgeable about hormone use is still very limited. Moreover, several transpinays visited “quack doctors” (unlicensed health-care providers) because surgical procedures and implants related to transitioning can be very expensive in private clinics. Most transpinays had not been tested for HIV and STI. Knowledge of HIV testing was also low, and most did not know where to get tested or screened for STIs. Sexual debut was early, usually during adolescence, before the age of 18 years and without condoms. Condom use was not consistent and depended heavily on availability and perceived risks, particularly when it pertained to the social relationship with the sexual partner (e.g. sex with steady/romantic partners was usually without condoms). Transpinays have receptive and insertive anal intercourse with their partners, and the Internet plays a pivotal role in finding sexual partners.

## Conclusion and priority actions

There are gaps in knowledge that need to be addressed. More research is needed on the behavioural aspects of hormone use and surgeries among MTF and FTM transgender people in the region. Throughout the region, transgender people are still very much underserved and have limited access to transgender-specific health care. Governments and WHO need to be sensitive to these current realities that exist in many parts of Asia and the Pacific. Urgent mobilization is needed in order to create a safe, enabling health-care environment if we are to achieve equal access for all. Synthetic analysis of the findings calls for the following priority actions.

### PRIORITY ACTION 1

**It is important that transgender people are accepted and recognized as having equal rights and dignity, which are protected under the law.**

- a. Efforts to repeal the existing laws that discriminate or stigmatize transgender people and to put protection laws in place (e.g. employment, hate crimes, antidiscrimination) may promote equality.
- b. Official and legal recognition by governments of transitioned gender identity (e.g. change in sexual status) on legal documents including passports, national identification cards, birth certificates and equivalent documents may improve several aspects of the lives of transgender people. Conditions for recognition which require individuals to undergo medical procedures they would not otherwise choose to undergo are considered undesirable and unnecessary.
- c. Consulting with transgender organizations and leaders would help in the development of optimal national and regional programmes, initiatives, research and policies.
- d. There is an urgent need to support the development and capacity-building of transgender organizations.
- e. Removing the categories of Gender Dysphoria/Gender Identity Disorder from the Diagnostic and Statistical Manual of Mental Disorders (DSM-5)<sup>a</sup> and from Chapter 5 (Mental and Behavioural disorders) of International Statistical Classification of Diseases and Related Health Problems (ICD-11)<sup>b</sup> would help reduce medical discrimination against transgender people.

### PRIORITY ACTION 2

**Increased knowledge and sensitivity among health-care personnel will help eliminate stigma and discrimination of transgender people in public and private settings.**

- a. Incorporating transgender health throughout the teaching curricula of all health professional schools (e.g. medical, nursing, pharmacy, health technicians, social work) is encouraged.
- b. Regular training for health-care personnel, including other staff (e.g. receptionists) will help ensure continued efforts towards better health care for transgender people.

- c. Laws and policies that ban discrimination in health-care settings are necessary.
- d. It is important for bodies governing health care to have oversight and be charged with responsibilities to monitor and maintain standards of care and handle cases of misconduct, including handling complaints and sanctions.
- e. There is a need to establish transgender health collaborating centres/centres of excellence.

### **PRIORITY ACTION 3**

**A comprehensive standard of care for and guidelines on transgender health would be beneficial to both transgender people and health-care providers.**

- a. A standard of care specific to Asia Pacific contexts is important for hormone and silicone use, and for surgical procedures relating to transitioning of the body (physical and psychological).
- b. A standard of care specific to Asia Pacific contexts is important for sexual and general health care.

### **PRIORITY ACTION 4**

**Affordable and convenient access to health care specific for transgender people is strongly encouraged.**

- a. Transgender people may greatly benefit from the availability and accessibility of gender-affirming procedures, such as hormone treatments and their monitoring, as well as implants and surgical procedures.
- b. Preventive and general health care are necessary.
- c. Availability and accessibility of mental health services for transgender people may also be beneficial (e.g. by having accessible, supportive, competent health-care professionals with whom transgender people can discuss transitioning issues, stress relating to social stigma and discrimination, as well as stress and anxiety relating to transitioning).

### **PRIORITY ACTION 5**

**Combining the collection of strategic information through transgender-specific surveillance in the region with more operational and social research, will be helpful in understanding transgender health specific to the contexts of Asia and the Pacific.**

- a. Regular surveillance for HIV and STIs among transgender people in the region is necessary.
- b. Operational research on module/training development is necessary.

- c. It is important to study the effects of long-term use of hormones.
- d. Research to examine the interactions between the use of hormones and other health risks (HIV/STI, cardiovascular diseases, cancer) and medications may further benefit transgender people in the region.
- e. It is necessary for HIV research to involve HIV-positive transgender people.
- f. It is important to conduct research on HIV transmission risks and the overall health of transgender men.
- g. Research on the social determinants of transgender health is also necessary.
- h. Issues related to ageing of transgender people are also important to examine.
- i. It is necessary for research to be inclusive of young transgender people.



c WHO definition 10-24 years.

# I. Introduction

Informed by the 2009 Joint United Nations Programme on HIV/AIDS (UNAIDS) *Action Framework: Universal Access for Men who have Sex with Men and Transgender People*,<sup>1</sup> the recently released *Global Health Sector Strategy on HIV/AIDS 2011–2015* by the World Health Organization (WHO) has two major goals: (1) to achieve universal access to HIV prevention, diagnosis, treatment and care interventions for all in need, and (2) to contribute to achieving the health-related Millennium Development Goals and their associated targets by 2015.<sup>2</sup> This strategy, along with the UNAIDS *Getting to Zero 2011–2015 strategy*,<sup>3</sup> is grounded in human rights and demands evidence-based responses that not only focus on, but also involve, key affected populations.

In 2011, the United Nations General Assembly expressed grave concern regarding the acts of violence and discrimination committed against individuals because of their sexual orientation and gender identity in all regions of the world,<sup>4</sup> and subsequently commissioned a report by the United Nations High Commissioner for Human Rights (OHCHR), which was distributed at the 19th session of the General Assembly.<sup>5</sup> Moreover, the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) released Resolution 67/9,<sup>6</sup> which for the first time recognized the barriers faced by transgender populations in accessing HIV prevention, treatment, care and support. While these actions are long overdue, they represent much-needed progress in the response to key populations such as men who have sex with men (MSM) and transgender people.

## II. Background and objectives

### Problem statement and definition

Transgender people are often defined as people whose gender identity and/or gender expression differs from their biological sex assigned at birth. Transgender people may identify as male-to-female (MTF) or transgender women, female-to-male (FTM) or transgender men, or may simply identify with their gender expression (e.g. male, female), or may not adhere to the gender binary at all. They may also engage in sexual activities with people whose gender expression is different from their own, similar to their own or with other transgender people. They may or may not alter their bodies with hormones, silicone injections or surgical procedures. In the Asia Pacific region, there are a variety of local terms for transgender people, reflecting the diverse social, cultural and religious roles of transgender people in the region.

In the past few decades, transgender populations have attained increased social and cultural acceptance,<sup>7,8</sup> as well as legal rights in some Member States in the Asia Pacific region. However, discrimination, harassment and abuse still occur.<sup>9</sup> Often, transgender people are denied medical care, mental health services, HIV/sexually transmitted infection (STI) and other sexual health-related services because of their gender identity.<sup>10,11</sup> The stigma and discrimination under such social contexts may contribute to higher rates of suicide, sexual coercion, violence, drug and alcohol use, stress and lack of social support, as compared with other populations.<sup>10,12,13</sup> Moreover, health problems among transgender people also include the consequences or complications of body augmentations, surgical procedures, or hormone and silicone use, including soft tissue fillers.<sup>14,15,16</sup>

Qualitative and quantitative understanding of transgender health in Asia and the Pacific is limited and often not documented. Findings from studies conducted in the United States of America and Europe have shown that transgender people are at significantly higher risk for HIV infection and STI, as compared to gay and heterosexual men. In the Asia Pacific region, recent data show that the HIV prevalence among MSM in Asia is: East Asia 5.2%, South and South-East Asia 14.7%, and Oceania 4.4%.<sup>17</sup> Epidemiological studies among transgender people have found an HIV prevalence ranging from 8% to 68%,<sup>14,18,19,20</sup> and HIV incidence from 3.4 to 7.8 per 100 person-years.<sup>21,22</sup> Correlates for HIV infection included a lower level of education,<sup>18,21</sup> unprotected anal sex,<sup>23</sup> sex work,<sup>14</sup> multiple sex partners,<sup>18</sup> and injecting drug use.<sup>13,18,23</sup> Moreover, information on other transgender health-related issues and concerns as well as the contexts of these health outcomes are seldom collected.

## **Size of the population**

Researchers and policy-makers do not know how many transgender people live and work in Asia and the Pacific. This is due to several reasons, including different definitions, inconsistent methods of instrumentation and categorization of gender identity, not being able to engage with transgender communities, lack of cooperation with local nongovernmental organizations in national and routine surveillance activities and, most importantly, not distinguishing transgender people from MSM categories. These limitations have kept size estimations of the transgender population largely unknown. However, a recent report (2012) by the United Nations Development Programme (UNDP) and Asia Pacific Transgender Network (APTN) arguably estimated that there might be around 9 million–9.5 million transgender people in Asia and the Pacific.<sup>24</sup>

## **Community concerns**

There has been ongoing concern by MSM and transgender organizations that the transgender community in Asia and the Pacific has been ignored. At the request of transgender delegates at the 10th International Congress on AIDS in Asia and the Pacific held in Busan, Republic of Korea, and in line with contextualizing implementation of the WHO global and regional guidance for HIV interventions among MSM and transgender people,<sup>25,26</sup> the WHO Regional Office for the Western Pacific, in collaboration with APTN, UNDP, the Asia Pacific Coalition on Male Sexual Health (APCOM) and the WHO Regional Office for the South-East Asia Region, commissioned an assessment report on the state of transgender health in Asia and the Pacific. The assessment included current concerns related to HIV, STI and sexual health, as well as technical recommendations to WHO and Member States in the region.

## **Transgender health**

Transgender health is often affected by exposure to the risks of acquiring HIV and STI, and the social determinants of health, such as transgender-related discrimination, violence, lack of social support, depression, suicide, sex work, drug use, poverty and unstable housing. While these issues are important, cross-cutting and related to one another, in this report, after consulting with community partners across the region, we focus on the risk dimensions related to HIV/STIs, sexual health, hormone and silicone use, and surgery related to (gender) transitioning.

## **Objectives and rationale**

The objectives of this assessment report are (1) to examine the current state of evidence on transgender health in Asia and the Pacific, (2) to understand the current needs and concerns of the transgender community in Asia and the Pacific and, informed by objectives 1 and 2, (3) to make technical recommendations to WHO and Member States regarding the health of transgender people.



To achieve the first objective, a desk review was conducted of the existing peer-reviewed scientific literature. In order to complement the desk review and address the second objective, a short open-ended survey questionnaire about the current needs and concerns related to transgender health was developed in collaboration with community partners and subsequently e-mailed to transgender regional network partners that included board members of APTN and APCOM, as well as their subregional networks. Moreover, focus group discussions (FGDs) were held in Manila, Philippines, to further collect and triangulate data with that from the desk review by providing first-hand qualitative information from local contexts. Finally, technical recommendations were developed, informed by the findings from the desk review, survey questionnaires and FGDs.

# III. Systematic review

## Methods

### Literature search and study selection

A systematic review of the published literature was done to identify empirical research papers on two major topics relating to transgender health: (1) HIV, STIs and general sexual health, and (2) hormone and silicone use, and surgical procedures, including sex reassignment surgery (SRS). The PubMed and EMBASE databases were used for the systematic search, and for each search limits were set to include only studies involving humans, published in English between January 2001 and December 2011.

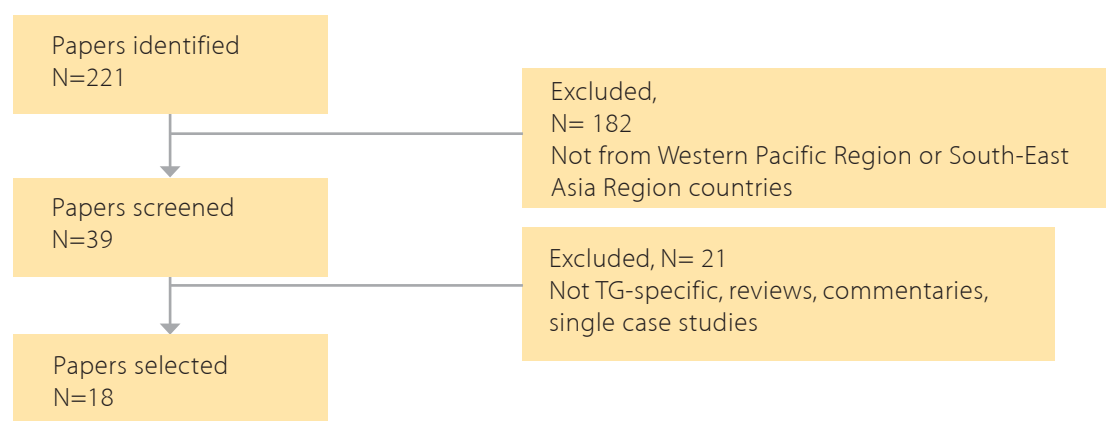
The first step was to identify research studies conducted among transgender people. To do this, terms such as “transgender”, “transsexual” and “transvestite” were used to locate relevant papers by searching the titles, abstracts and key words of citations. Then, a separate search was conducted under the terms “STD”, “sexually transmitted diseases”, “STI”, “sexually transmitted infections”, “HIV”, “human immunodeficiency virus”, and “sexual health”. Next, a search was conducted under the terms “hormone”, “silicone” and “surgery”. Lastly, a separate search for studies conducted in South-East Asia Region and Western Pacific Region Member States (see Table 1 for a list of South-East Asia Region and Western Pacific Region countries) was conducted in order to screen out studies from non Asia Pacific countries.

### HIV/STI/Sexual health

There were a total of 221 manuscripts that contained key words relating to HIV/STI/sexual health (see Figure 1). From these, 182 manuscripts were excluded because they were studies conducted outside of Western Pacific Region and South-East Asia Region countries. Following a review, an additional 21 were excluded because they did not contain transgender-specific information (e.g. information on transgender recruitment or analysis was not distinguishable from that on MSM), were commentaries or single case studies, or were conducted before January 2001. The final set of 18 manuscripts was then reviewed and information was extracted and coded by two independent reviewers.

**Table 1. List of countries/areas belonging to Western Pacific Region and South-East Asia Region**

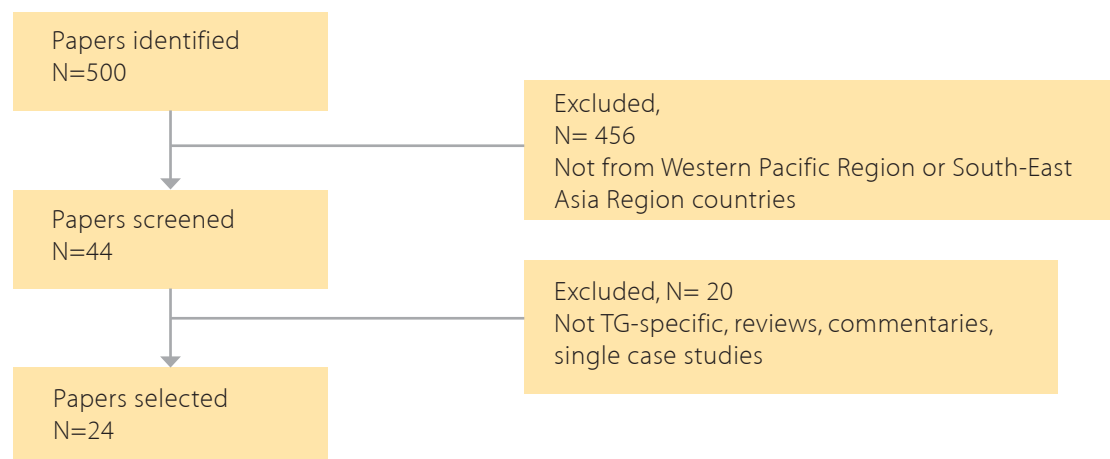
Western Pacific Region countries/areas		South-East Asia Region countries
Pacific	Non-Pacific	
American Samoa	Australia	Bangladesh
Cook Islands	Brunei Darussalam	Bhutan
Fiji	Cambodia	Democratic People's Republic of Korea
French Polynesia	China	India
Guam	Hong Kong (China)	Indonesia
Kiribati	Japan	Maldives
Marshall Islands	Lao People's Democratic Republic	Myanmar
Micronesia	Macao (China)	Nepal
Nauru	Malaysia	Sri Lanka
New Caledonia	Mongolia	Thailand
Niue	New Zealand	Timor-Leste
Northern Mariana Island	Republic of Korea	
Palau	Singapore	
Papua New Guinea	Philippines	
Pitcairn Island	Viet Nam	
Samoa		
Solomon Islands		
Tokelau		
Tonga		
Tuvalu		
Vanuatu		
Wallis and Futuna		

**Figure 1. Flow chart for paper selection: HIV/STI/sexual health studies among transgender people**

## Hormone use/surgeries

A total of 500 manuscripts contained key words relating to hormone use/surgeries (see Figure 2). From these, 456 manuscripts were excluded because they were studies conducted outside of Western Pacific Region and South-East Asia Region countries. Following a review, an additional 20 were excluded because they did not contain transgender-specific information (e.g. information on transgender recruitment or analysis was not distinguishable from that on MSM), were commentaries, or were conducted before January 2001. For this review, it was decided that single case studies were acceptable due to the nature of surgical observational studies. The final set of 24 manuscripts was then reviewed and information was extracted and coded by two independent reviewers.

**Figure 2. Flow chart for paper selection: hormones/silicone/surgery/sexual health studies among transgender people**



## Findings

### HIV/STI/Sexual health

A total of 18 manuscripts covered topics relating to HIV, STI and sexual health among transgender people in South-East Asia Region and Western Pacific Region countries (see Table 2 for details of studies and references).<sup>27–44</sup> There were no studies that involved female-to-male (FTM) transgender people or transgender men, which also fit our eligibility criteria. Fifteen were from South-East Asia Region countries and three from Western Pacific Region countries. Among South-East Asia Region countries, India had the largest number of manuscripts. There was a total of five studies that used qualitative methods, 12 used quantitative methods, and one used both qualitative and quantitative methods. These studies had been conducted within the past six years (2006–2011) and were surveillance-type studies where HIV and/or STI prevalence were

the main outcomes. There were no studies from high-income<sup>a</sup> countries in Asia—Hong Kong (China), Japan, Republic of Korea and Singapore or the Pacific islands, and only one study from Australia.

Most of the studies were on behavioural risk factors, and reported information about unprotected anal intercourse, number of sexual partners and partner types (e.g. casual, steady, sex worker). Reported condom use ranged from 24.5% to 85.7%. Among steady/primary non-paying partners, consistent condom use tended to be low. Of the 18 studies, 10 collected biological samples that were tested for HIV and, of these, only four studies tested for STI. HIV prevalence in the region ranged from 13.5% (Thailand<sup>32</sup>) to 41.0% (India<sup>44</sup>). Reported STIs included syphilis, gonorrhoea, chlamydial infection, hepatitis B and herpes. For example, in a large cross-sectional study among 1150 transgender sex workers (*warias*) in Java, Indonesia, Prabawanti et al. reported a prevalence of HIV, syphilis and rectal gonorrhoea and/or chlamydial infection to be 24.4%, 26.8% and 47%, respectively.<sup>35</sup> Other prevalence/surveillance studies were from Bangladesh, India, Indonesia, the Lao People's Democratic Republic and Thailand. Sampling of transgender people was usually opportunistic/convenience based, a few studies were clinic based or used time–location sampling, and only one study used probability sampling. With the exception of Thailand and the Lao People's Democratic Republic, studies on transgender people were primarily focused on populations above the age of 18 years. This may therefore exclude important insights relating to identity development, transitional experiences and HIV/STI risk contexts of transgender people less than 18 years of age. Finally, there were no studies on HIV-positive transgender people. With many cities documenting a high HIV prevalence among transgender people, there needs to be a focus on HIV-positive transgender people, including access to treatment, care and support.

Overall, studies among transgender people tended to be part of MSM studies and therefore transgender-specific information related to HIV infection/STIs, behavioural information and social contexts were not always reported and usually mixed with data from MSM.

### Hormone use/surgeries

After an extensive search of the biomedical literature, a total of 24 manuscripts were found which covered topics relating to hormone use and surgeries among transgender people in South-East Asia Region and Western Pacific Region countries (see Table 3 for details of studies and references).<sup>31,45–67</sup> Most studies were among FTM transgender people (17 studies) and most were from Japan (13 studies). The rest were from the Republic of Korea (three studies), Australia (three studies), China (two studies), Singapore (one study), Thailand (one study) and New Zealand (one study). Most of these were case studies describing the technical and procedural techniques of various surgeries relating to gender transitioning such as mastectomy, urethroplasty, metoidioplasty, vaginoplasty, phalloplasty and breast reduction. Seven studies focused on hormone

a Income categorization according to World Bank criteria

use; however, they were mostly clinic-based, experimental or retrospective studies to determine the effect of high-dosage, prolonged use of certain hormones among (mostly FTM) transgender people. Androgen, in particular, was the hormone of interest in many of these studies. There were no qualitative studies on hormone use or surgical experiences related to transitioning in the region.

Only one study described the patterns of hormone use and experiences of surgical procedures among a community sample of male-to-female (MTF) transgender people. This study was conducted in Bangkok, Chiang Mai and Phuket, Thailand, using time–location sampling. A total of 474 transgender people responded to the survey: 68.6% had any surgical procedure, which included surgery for the breasts (34.8%), bottom/hip (7.7%), face (35.1%) and Adam’s apple (1.8%), and 11.1% had sex reassignment surgery (SRS). About 88% had taken hormones; of these, 25.9% had taken hormones orally only, 24.9% had injected hormones only, 49.2% had taken hormones both orally and by injection; and 53.7% used hormones daily. A pharmacy was the most common place where transgender people obtained hormones (88.6%), followed by physicians/clinics (31.2%), hospitals (4.8%), friends (8.5%) and others/non-friends (2.4%).<sup>32</sup>

Overall, studies relating to hormones and surgeries tended to be clinical and most focused on FTM transgender people.

## Discussion

A systematic review of the published biomedical literature found that few studies have been conducted among transgender populations in South-East Asia Region and Western Pacific Region countries. Studies on HIV/STI/sexual health tended to be centred on MSM. In many of these studies, there were no criteria or definitions with respect to the recruitment of transgender people, which suggests that transgender people may not have been actively recruited as a separate group from MSM. Instead, transgender people were mixed with MSM and therefore it was difficult to analyse the results of transgender people separately and understand the unique risks and contexts of transgender people. Moreover, there were very few studies on STI and these tended to be passive recruitment in clinics. Transgender people who were recruited were usually easily accessible populations in clinics or at venues where transgender people congregate (e.g. sex-work brothels) in urban centres. In order to better understand the wide-ranging risk contexts of transgender people, research needs to go beyond what is convenient and reach out to transgender people outside of city centres, beyond brothels and into communities. Interestingly, there were no studies relating to HIV/STI from developed countries in Asia and only one study from Australia. There were also no studies from China which, when compared with the abundance of manuscripts on MSM,<sup>68,69</sup> suggests that transgender people are either included as MSM there or that this population is completely ignored.

This systematic review found 24 manuscripts relating to hormones and surgeries. However, these studies were limited to surgeries of FTM transgender people in Japan and the Republic of Korea, and mostly described surgical techniques via case studies.

In contrast to the abundance of manuscripts found in the HIV/STI review from countries such as India, Indonesia and Thailand, this review found only two studies from China<sup>49,57</sup> and one from Thailand.<sup>32</sup> This therefore suggests that the research agenda of developing countries in Asia is focused on HIV/AIDS because it is dictated by the needs and concerns of MSM. Moreover, the culture of publication needs to be taken into account. Thailand is well known throughout the region for surgical procedures, including SRS, and there are many Thai hospitals and clinics that accommodate foreigners who travel there for transition-related surgical procedures, yet there were no studies on this subject published from Thailand. This is disappointing because the experiences and wisdom gained are not shared with and debated by the scientific community. The only study from Thailand was an epidemiological/surveillance study that assessed the behavioural aspects of hormones and surgeries among MTF transgender people.

This review had some limitations. It included only studies in English published in peer-reviewed biomedical journals. While it may be a limitation to search only the biomedical literature, it is important to reflect the state of evidence on transgender health within the biomedical paradigm. This may have excluded national journals published in the local languages, as well as master's theses, doctoral dissertations and international journals within the social sciences. However, this review was meant to be rigorous in the quality of the research studies within the biomedical paradigm, since these studies will eventually become evidence that will inform regional and international health policies. While health assessment reports by governments and nongovernmental organizations, and even United Nations documents and estimations are important, these are not always publicly available and the quality of the data has usually not been independently reviewed by outside scientists. These were our reasons for excluding those documents.

**Table 2. Summary table of HIV, STI and sexual health among transgender people in Asia and the Pacific**

Source				Methods			
Citation	Study year	Country	City	Study type (Descriptive/risk factors/intervention or intervention-related/qualitative)	Study design	Sampling method (convenience/ clinic-based/ time-location/ probability)	Analysis
Chandrashekar et al. 2011 [27]	2011	India	Mumbai/ Thane	N/A	Data analysis	nongovernmental organizations database	Statistical
Chakrapani et al. 2011 [28]	2007	India	Chennai	N/A	Qualitative	Convenience	Framework/thematic
Longfield K et al. 2011 [29]	2004, 2006	Lao People's Democratic Republic	Luang Prabang, Vientiane and Savannakhet	Intervention	Cross-sectional surveys	Time-location	Statistical (UNIANOVA tests)
Chariyalertsak et al. 2011 [30]	2008–2009	Thailand	Chiangmai	HIV prevalence, risk factors	Cross-sectional surveys	Clinic-based (Voluntary Counselling and Testing)	Statistical (logistic regressions)



**Table 2. Summary table of HIV, STI and sexual health among transgender people in Asia and the Pacific (cont.)**

Participants			Outcomes		Results	Conclusion
Sample sizes	Transgender population	Age	Information collected	HIV/STI information (biological/self-report/not available)	Main results	
Data collected among different key populations at Avahan	Hijras (sampled only in Mumbai/Thane)	Not available	Number of hijras reached, attended clinics, and related costs of these activities	Not available	Hijras in Mumbai/Thane had a higher mean cost per person reached (US\$ 116) than any other group (FSW, US\$ 75–US\$ 96; MSW, US\$ 90).	Costs should be considered when planning budgets with key populations such as transgender people, MSM, MSWs and FSWs.
17	Aravanis/hijras	23–46 years (mean=34 years)	Barriers related to ART access categorized into 3 levels: individual, family/social and health-care system	Not available	Levels highly interrelated and stigma and discrimination of being a transgender person and of being HIV positive existed at all levels. Participants associated fear of positive status disclosure with rejection from family, eviction from home, social isolation, loss of subsistence income, and maltreatment within health-care systems.	Interventions to improve ART access must address highly related multi-level barriers.
November 2004 (N = 288) and June 2006 (N = 415)	Kathoey	15–35 years	Demographics and risk information, intervention-specific indicators	Biological (HIV only)	Exposure to interventions was associated with higher levels of condom use at last anal sex with casual partners and greater use of water-based lubricant. Knowledge about the importance of consistent condom use and the need to use condoms with regular partners improved over time, however, some HIV knowledge and the intention to use condoms with casual partners decreased over time.	Increasing condom use with casual partners was successful through the intervention. Other issues to emphasize in the future include misconceptions about HIV and AIDS, STIs, condom use and lubricant use.
140	Transgender clients	18.1–47.9 years (median=22.4)	Demographics and risk information, HIV incidence among repeat testers and interest in participation in biomedical HIV prevention trials (circumcision, HIV vaccine, and PrEP)	Biological (HIV only)	Transgender people are twice more likely than gay men to have had consumed alcohol 7 or more times per week. Interest in participation in biomedical HIV prevention trials was high.	HIV positivity was associated with being gay-identified, unsafe sexual practices and older age.

**Table 2. Summary table of HIV, STI and sexual health among transgender people in Asia and the Pacific (cont.)**

Source				Methods			
Citation	Study year	Country	City	Study type (Descriptive/risk factors/intervention or intervention-related/qualitative)	Study design	Sampling method (convenience/ clinic-based/ time-location/ probability)	Analysis
Nemoto et al. 2012 [31]	2010	Thailand	Bangkok	Risk factors	Mixed (cross-sectional surveys and qualitative)	Convenience	Statistical (logistic regressions)
Guadamuz et al. 2011 [32]	2005	Thailand	Bangkok, Chiangmai and Phuket	HIV prevalence, risk factors	Cross-sectional surveys	Time-location	Statistical (logistic regressions)
Guy et al. 2011 [33]	2007	Indonesia	Jakarta and Bali	HIV prevalence, risk factors	Cross-sectional surveys	Clinic-based (Voluntary Counselling and Testing)	Statistical (logistic regressions)
Wilson et al. 2011 [34]	Not available	Nepal	Kathmandu	Qualitative	In-depth interviews	Convenience	Phenomenological/ thematic
Prabawanti et al. 2011 [35]	2007	Indonesia	Java	HIV prevalence, risk factors	Cross-sectional surveys	Convenience	Statistical (logistic regressions)
Khan et al. 2009 [36]	Not available	Bangladesh	Dhaka	Qualitative	In-depth, key-informant interviews and FGDs	Convenience	Thematic

**Table 2. Summary table of HIV, STI and sexual health among transgender people in Asia and the Pacific (cont.)**

Participants			Outcomes		Results	Conclusion
Sample sizes	Transgender population	Age	Information collected	HIV/STI information (biological/self-report/not available)	Main results	
112	<i>Kathoey</i> sex workers	18–47 years (mean=22.4, median=21)	Demographics and risk information, experiences of violence and contexts relating to transphobia and sex work	Not available	One-third engaged in unprotected anal intercourse with clients in the past 6 months, half have not tested for HIV and almost all have not visited health-care providers in the past 12 months. Prevalence of use of marijuana, ecstasy, ketamine and non-injecting methamphetamine was 32%, 36%, 20% and 10%, respectively.	The study provided implications for facilitating HIV testing and developing future HIV prevention programmes for <i>kathoey</i> sex workers in Thailand.
474	<i>Kathoey</i>	15–49 years (mean=24.1)	Demographics and risk information	Biological (HIV only)	13.5% HIV prevalence, 60.8% had received money, gifts or valuables for sex, 88.6% had or were using hormones, 68.6% had undergone surgical procedures and 11% had undergone SRS. Being older, anal sex role was versatile, anal sex debut before age 13 and being recruited in parks/street was associated with HIV infection.	The development, implementation and evaluation of transgender-targeted, socioculturally appropriate sexual health interventions are urgently needed.
395	<i>Warias</i>	Not available	Demographics and risk information	Biological (HIV only)	31.6% HIV prevalence	HIV prevalence found in this study was confirmed by earlier serosurveys of <i>warias</i> .
14	<i>Metis</i>	Not available	HIV risk-related themes	Not available	Rape by law enforcement officers, inconsistent condom use and high reported numbers of sexual partners	Need for involving law enforcement institutions in HIV prevention programmes
1150	<i>Warias</i>	15–83 years (mean=30 years)	Demographics and risk information	Biological (HIV, syphilis, rectal gonorrhoea and chlamydia)	24.4% HIV prevalence, 26.8% syphilis, and 47% rectal gonorrhoea and/or chlamydia; 35.9% consistent condom use with clients; syphilis and rectal gonorrhoea associated with HIV infection	Strengthen behavioural change and STI care.
120	<i>Hijras</i>	Not available	Exclusion and sexual health	Not available	<i>Hijras</i> are at the extreme margin of society, not recognized by civil society and thus do not have a sociopolitical space. They are also physically, verbally and sexually abused.	Before HIV prevention interventions can be effective, <i>hijras</i> need to be first recognized and have a safe gendered space in society.

**Table 2. Summary table of HIV, STI and sexual health among transgender people in Asia and the Pacific (cont.)**

Source				Methods			
Citation	Study year	Country	City	Study type (Descriptive/risk factors/intervention or intervention-related/qualitative)	Study design	Sampling method (convenience/clinic-based/time-location/probability)	Analysis
Koon et al. 2008 [37]	2007	Malaysia	Not available	Qualitative	In-depth interviews	Convenience	Thematic
Brahmam et al. 2008 [38]	2006–2007	India	Andhra Pradesh, Maharashtra and Karnataka	HIV prevalence, risk factors	Cross-sectional surveys	Probability	Statistical (logistic regressions)
Khan et al. 2008 [39]	Not available	Bangladesh	Dhaka	Qualitative	In-depth, key-informant interviews and FGDs	Convenience	Thematic
Hounsfeld et al. 2007 [40]	1990–2006	Australia	Sydney	HIV prevalence, risk factors	Retrospective review	Clinic-based (sexual health)	Statistical

**Table 2. Summary table of HIV, STI and sexual health among transgender people in Asia and the Pacific (cont.)**

Participants			Outcomes		Results	Conclusion
Sample sizes	Transgender population	Age	Information collected	HIV/STI information (biological/self-report/not available)	Main results	
15	Mak nyahs	Not available	Hormone-taking behaviour, safe sex, health care, substance abuse, harassment from authorities and HIV prevention	Not available	Among mak nyahs, in-depth HIV/AIDS knowledge lacking, HIV not a primary concern, more concern with employment and discrimination; mak nyahs also face constant harassment from enforcement authorities for sex work.	HIV prevention needs to be better targeted and take into account the social contexts of mak nyahs, which include employment, harassment by authorities and social discrimination.
575	Hijras	18–65 years (mean=27.7 years)	Sociodemographic and sexual risk behaviours	Biological (HIV, urethral NG, urethral CT, syphilis, HSV-2)	18% HIV prevalence among hijras, 13.6% and 45.4% prevalence for syphilis and HSV, respectively. 61% of hijras had first sex at age 15 years or younger, 63.5% is currently engaged in sex work and 20% had ever been married.	HIV and syphilis prevalence and risk behaviours of hijras in South India is high.
120	Hijras	Not available	Contexts of condom use	Not available	Cognitive domains of no or inconsistent condom use include low self-confidence; economic hardships for survival; multiple transient partners; sexual desire, preferences and eroticisms concerning anal sex; stigma associated with purchasing condoms; poor quality and interrupted supply of condoms and lubricants; inadequate professional skills and motivational impetus of the outreach staff for condom promotion, and incompetent management with inadequate understanding about the dynamics of condom use.	A paradigm shift that not only focuses on the mechanical aspects of condom use, but also includes sociocultural and erotic contexts is needed in current prevention programmes for hijras.
36 male-to-female, 4 female-to-male	Transgender people	Not available	Demographics, gender characteristics, risk behaviours, sexual health morbidity, psychosocial information	Not available	43% engaged in sex work, 40% injected drugs, 35% had unprotected anal or vaginal sex in the past 3 months; 50% had history of an STI, 7.5% HIV positive, and 2 were coinfecting with hepatitis C. Genital warts and chlamydia were the most common diagnoses made during the study period.	High prevalence of STIs and history of injecting drug use and unprotected anal or vaginal sex were found in a clinic sample of transgender people in Sydney.

**Table 2. Summary table of HIV, STI and sexual health among transgender people in Asia and the Pacific (cont.)**

Source				Methods			
Citation	Study year	Country	City	Study type (Descriptive/risk factors/intervention-related/qualitative)	Study design	Sampling method (convenience/clinic-based/time-location/probability)	Analysis
Setia et al. 2006 [41]	Not available	India	Mumbai	HIV prevalence, risk factors	Cross-sectional surveys	Clinic-based (STI)	Statistical (logistic regressions)
Pisani et al. 2004 [42]	2002	Indonesia	Jakarta	HIV prevalence, risk factors	Cross-sectional surveys	Probability, mixed probability and convenience	Statistical (logistic regressions)
Guadamuz et al. 2011 [43]	2005	Thailand	Bangkok, Chiangmai and Phuket	Risk factors	Cross-sectional surveys	Time-location	Statistical (logistic regressions)
Shinde et al. 2009 [44]	Not available	India	Mumbai	Risk factors	Cross-sectional surveys	Clinic-based (STI)	Statistical (logistic regressions)

**Table 2. Summary table of HIV, STI and sexual health among transgender people in Asia and the Pacific (cont.)**

Participants			Outcomes		Results	Conclusion
Sample sizes	Transgender population	Age	Information collected	HIV/STI information (biological/self-report/not available)	Main results	
28	Male-to-female transgender people, local terms not provided	(mean=25.3 years)	Demographics and risk informaton	Biological (biological tests: HIV, TPHA, HSV-2, hep B; clinical: primary syphilis, genital herpes and proctitis)	Of the 28 transgender people in the study, 96% engaged in sex work, and 3 had primary syphilis, genital herpes and proctitis. 7% had tested for HIV, 79% believed they were not likely to be infected and 64% of these were positive. 57% tested positive for TPHA, 71% positive for HSV-2 and 21% positive for hep B. Current STI was strongly associated with HIV infection [9.8 (1.5-63.9)]	Regular STI screening and treatment, information about risk behaviours, reduction in the number of partners and condom negotiation skills with prospective clients.
241	Warias	(mean=29.3 years)	Demographics and risk informaton	Biological (HIV, syphilis)	22% HIV prevalence, 28.2% had positive syphilis serology, 59.3% had unprotected sex with their male clients in the past week and 33.6% had unprotected sex with their non-paying male partners and 13.3% had ever used water-based lubricant. Any unprotected anal sex with client last month and tested positive for syphilis were associated with HIV infection [3.21 (1.53–6.75) and 3.73 (1.82 to 7.64), respectively.]	Transgender women are experiencing an epidemic of HIV and STIs that is facilitated by high rates of unprotected anal intercourse with clients.
474	Kathoey	15–49 years (mean=24.1 years)	Demographics and risk informaton	Biological (HIV only)	26.4% had a history of forced sex (transgender people are 2.36 [1.72–3.24] times more likely than MSWs to have ever been forced to have sex), 57.6% were first forced at age less than 18 years, median number of occurrences=2, and forced by someone they know.	The significant association between forced sex history and traditional HIV correlates warrant further attention to the vulnerabilities of Thai transgender people.
51	Hijra sex workers	Not available	Demographics and risk informaton	Biological (HIV only)	41% HIV prevalence among transgender SWs, compared to 17% among MSWs.	Transgender SWs should be the focus of intensive public health interventions aimed at reduction of risky sexual practices, and STI/HIV prevention and care.

**Table 3. Summary table of hormone use and surgeries related to transitioning experience in Asia and the Pacific**

Source		Methods					Participants
Citation	Study year	Country	Study type	Study design	Sampling method	Analysis	Sample sizes
Baba et al. 2011 [45]	Not available	Japan	Epidemiological	Retrospective	Convenience	Medical histories	104 MTF, 238 FTM
Guadamuz et al. 2011 [32]	2005	Thailand	Epidemiological	Cross-sectional survey	Time–location	Statistics	474 MTF
Song et al. 2011 [46]	1999–2009	Singapore	Evaluation of operative procedure	Cross-sectional survey	Clinic-based	Statistics	19 FTM
Kim et al. 2010 [47]	2001–2009	Republic of Korea	Evaluation of operative procedure	N/A	Clinic-based	Statistics	70 FTM
Namba et al. 2009 [48]	2001–2009	Japan	Case study	Operative procedure	Clinic-based	N/A	120 FTM
Wu et al. 2009 [49]	2004–2007	China	Evaluation of operative procedure	Retrospective	Clinic-based	Medical histories, statistics	86 MTF
Matsumoto et al. 2009 [50]	1999–2005	Japan	Epidemiological	Cross-sectional survey	Clinic-based	Statistics	227 FTM, 117 MTF



**Table 3. Summary table of hormone use and surgeries related to transitioning experience in Asia and the Pacific (cont.)**

Outcomes		
Surgical procedures	Hormones	Other/miscellaneous
N/A	32% diagnosed with polycystic ovary syndrome, 30.1% insulin resistant and 31.1% had hypoadiponectinaemia	Prevalence of MTF estimated to be 8.20% and FTM 3.97%
68.6% had ever had implants/silicone injections: 34.8% breasts, 7.7% bottom/hip, 35.1% facial; 1.8% had ever had Adam's apple surgery and 11.1% had ever had SRS	88.3% had ever taken hormones; of these, 25.9% took hormones orally only, 24.9% injected hormones only and 49.2% both oral and injection hormones; 53.7% used hormones daily. Pharmacy was the most common place where transgender people obtained hormones (88.6%), followed by physicians/clinics (31.2%), hospitals (4.8%), friends (8.5%) and others/non-friends (2.4%).	
Radial forearm flap was reliable in providing bulk with stiffness and had acceptable appearance. Patients were generally happy with the procedure and none regretted having had the procedure.	N/A	
A new, modified urethroplasty method among FTM transgender people had a reduction in urethrocutaneous fistula, 21.9% (new) versus 36.8% (old).	N/A	
Description of operative procedures related to mastectomy	N/A	
Laparoscopic vaginoplasty using ileal segment was evaluated after an average of 18 months follow up; 90.7% of patients were satisfied with their sex lives, except for 5.8% with vaginal stenosis and 3.5% who had no sexual partners. Three cases had major complications. There were significant differences between the laparoscopic and laparoscopy-assisted vaginoplasty groups (operation time, costs and hospital duration).	N/A	
N/A	N/A	Using the Ways of Coping questionnaires, Lazarus Stress-coping Inventory, FTM patients were significantly more reliant on positive reappraisal strategies in stressful situations than MTF patients with Gender Identity Disorder (P = 0.007).

**Table 3. Summary table of hormone use and surgeries related to transitioning experience in Asia and the Pacific (cont.)**

Source		Methods					Participants
Citation	Study year	Country	Study type	Study design	Sampling method	Analysis	Sample sizes
Ujike et al. 2009 [51]	Not available	Japan	Genetic	Genotype analysis	Clinic-based	Statistics	74 MTF, 168 FTM
Takamatsu et al. 2009 [52]	1998–2007	Japan	Case study	Operative procedure	Clinic-based	Descriptive	69 FTM
Kuroda et al. 2008 [53]	1998–2006	Japan	Case study	Retrospective/ pathology (breast tissue)	Clinic-based	Statistics	186 FTM
Emi et al. 2008 [54]	Not available	Japan	Case study	Biochemical analysis and arterial stiffness evaluation	Clinic-based	Statistics	111 FTM
Namba et al. 2007 [55]	2006–2007	Japan	Case study	Operative procedure	Clinic-based	Descriptive	7 MTF
Kim et al. 2009 [56]	1991–2005	Republic of Korea	Case study	Operative procedure	Clinic-based	Descriptive	41 FTM
Yang et al. 2007 [57]	2000–2005	China	Case study	Operative procedure	Clinic-based	Descriptive	8 FTM

**Table 3. Summary table of hormone use and surgeries related to transitioning experience in Asia and the Pacific (cont.)**

Outcomes		
Surgical procedures	Hormones	Other/miscellaneous
N/A	N/A	No differences were found between the genes of MTF and FTM transgender people; therefore, the findings do not provide any evidence that genetic variants of sex hormone-related genes confer individual susceptibility to MTF or FTM transsexualism.
Technical details of metaidoioplasty among 69 FTM patients. Satisfactory urine stream and appearance were achieved.	N/A	
N/A	No significant differences in the frequency of carcinoma and hyperplasia between FTM women who had used androgen therapy and those who had not.	
N/A	Long-term and high-dose administration of androgen is likely to cause increased arterial stiffness in FTM transgender people. To prevent atherosclerosis and cardiovascular events, a periodic check-up and pharmacological therapy for hypertension should be tailored on an individual basis.	
A new vaginoplasty procedure (M-shaped perineoscrotal flap) was performed with 7 MTF and observed; none developed necrosis, were able to engage in sexual activities within 3 months. There are many advantages to this new procedure, including safety with good vascularity, able to construct a sufficiently deep vagina without a skin graft, and use of skin from both sides of the scrotal area.	N/A	
Phalloplasty using radial forearm osteocutaneous free flap performed with minimal complications and aesthetically and functionally acceptable	N/A	
All flaps survived completely and follow-up was from 1 to 5 years. The reconstructed penis yielded satisfactory function and aesthetic appearance. Of all the cases, 10 of 15 patients who had sexual intercourse after their operations had satisfactory results: 3 were partially satisfied and 2 dissatisfied. Standing urination was possible in all patients.	N/A	

**Table 3. Summary table of hormone use and surgeries related to transitioning experience in Asia and the Pacific (cont.)**

Source		Methods					Participants
Citation	Study year	Country	Study type	Study design	Sampling method	Analysis	Sample sizes
Inoue et al. 2007 [58]	2007	Japan	Case study	Operative procedure/ forensic autopsy	Clinic-based	Descriptive	1 FTM
Baba et al. 2007 [59]	2003–2006	Japan	Epidemiological	Retrospective	Clinic-based	Descriptive	69 FTM
Takayanagi and Nakagawa 2006 [60]	Not available	Japan	Case study	Operative procedure	Clinic-based	Descriptive	29 FTM
Nagai et al. 2005 [61]	2001–2005	Japan	Case study	Operative procedure	Clinic-based	Descriptive	4 MTF
Yamasaki et al. 2003 [62]	2001	Japan	Case study	Observational	Clinic-based	Descriptive	1 FTM
Baba et al. 2007 [59]	2003–2006	Japan	Epidemiological	Retrospective	Clinic-based	Descriptive	69 FTM

**Table 3. Summary table of hormone use and surgeries related to transitioning experience in Asia and the Pacific (cont.)**

Outcomes		
Surgical procedures	Hormones	Other/miscellaneous
	Severe stenosis (>90%) at left descending branch, myocardial fibrosis and myocardial calcification were detected in a 32 year-old FTM transgender person who had been injected with testosterone enanthate (125 mg) once or twice per month for over two years and died suddenly. Uncertain whether cross-hormone replacement is associated with the occurrence of coronary artery disease or that the development of ischaemic heart disease was aggravated by the testosterone enanthate.	
N/A	58% prevalence of polycystic ovary syndrome, 30.6% showed insulin resistance, 30.5% showed hypoadiponectinaemia, 39.1% showed hyperandrogenaemia. Hyperandrogenaemia was associated with both polycystic ovary syndrome and obesity.	
Details with regard to the two operative procedures to reduce the breasts of FTM transgender patients were described and 21 patients underwent this breast reduction technique with minimal complications: haematoma (1 case), small burn scars attributable to haemostasis (2 cases), partial skin necrosis of the new small nipple (3 cases), superficial skin necrosis of the areola (1 case), and redundant skin with wrinkles around the areola (1 case).	N/A	
4 total cases were performed and in the last two cases, penile and scrotal skin flaps were used to avoid complications.	N/A	
N/A	31 year-old female injected with 125 mg of testosterone enanthate every two weeks for 4 months in order to begin gender transition. After 4 months, menstruation remained; however, body weight, body mass index and lean body mass increased. Trunk-leg fat ratio did not change.	
N/A	58% prevalence of polycystic ovary syndrome, 30.6% showed insulin resistance, 30.5% showed hypoadiponectinaemia, 39.1% showed hyperandrogenaemia. Hyperandrogenaemia was associated with both polycystic ovary syndrome and obesity.	

**Table 3. Summary table of hormone use and surgeries related to transitioning experience in Asia and the Pacific (cont.)**

Source		Methods					Participants
Citation	Study year	Country	Study type	Study design	Sampling method	Analysis	Sample sizes
Kwun Kim et al. 2003 [63]	1992–2002	Republic of Korea	Case study	Retrospective, physical examination and 1-year postoperative interview	Clinic-based	Descriptive	28 MTF
Tourbach et al. 2011 [64]	2010/2011	Australia	Case study	Operative procedure	Clinic-based	N/A	1 FTM
Veale 2008 [65]	Not available	New Zealand	Epidemiological	Secondary data analysis	Records	Estimation	266 transsexuals (MTF and FTM)
New et al. 2000a [66]	Not available	Australia	Epidemiological	Experimental (case/control)	Clinic-based	Statistics	21 MTF
New et al. 2000b [67]	Not available	Australia	Epidemiological	Experimental (case/control)	Clinic-based	Statistics	15 MTF

**Table 3. Summary table of hormone use and surgeries related to transitioning experience in Asia and the Pacific (cont.)**

Outcomes		
Surgical procedures	Hormones	Other/miscellaneous
Rectosigmoid vaginoplasty was successful in MTF transgender patients who had undergone penectomy and orchiectomy. Reasons include rare contraction of the constructed vagina, no long-term vaginal stent, spontaneous mucus production, avoidance of malodour, texture and appearance similar to natural vagina.	N/A	
Procedure successfully used a free jejunal flap for a long anterior urethral reconstruction.		
N/A	N/A	Prevalence ratio of 1:3639 for MTF transsexualism and 1:22714 for FTM transsexualism
N/A	There were no demonstrable differences in systemic arterial compliance, heart rate, systolic blood pressure, diastolic blood pressure, mean blood pressure and pulse pressure between the group of male-to-female transsexuals and age-matched males.	
N/A	There is a benefit of long-term estrogen therapy on resistance vessel reactivity in biological males; however, the effect may be selective since the endothelium-independent vasodilation and vasoconstriction were not altered.	

## Conclusion

In conclusion, there are gaps in knowledge that need to be addressed. More research is needed on the behavioural aspects of hormone use and surgeries among MTF and FTM transgender people in the region. Moreover, the research needs to reflect the current realities in many developing countries of Asia and the Pacific where hormone use, for example, may involve self-medication and surgeries may be done in non-traditional health-care settings by non-licensed, non-professional providers. With regard to research on HIV, STI and the sexual health of transgender people, more research is needed on STI in general and STI testing in particular. For example, the fact that only 18 manuscripts were found within the past decade that described HIV/STI and sexual health of transgender people within the entire Asia Pacific region is remarkable. Why is it that more transgender health-related research is not being published in peer-reviewed biomedical journals? Is there no demand from the editors of these journals that transgender health is relevant and important, or is it that researchers choose not to publish in biomedical journals, or is it that current research on transgender people does not have the scientific rigour to make it past the reviewers of these journals? These questions need to be discussed among researchers and advocates of transgender health in the region if we are to move the field forward and improve the health of transgender people in the region. For countries that have conducted surveillance/prevalence studies and have established HIV epidemics among MTF transgender people in their countries (e.g. India, Indonesia and Thailand), research needs to move toward intervention development and evaluation, as well as on how to access transgender people who are HIV-positive and ensure that they are provided with treatment, care and support.

Additionally, in the current HIV prevention research, FTM transgender people are often ignored. In the Asia Pacific region, we currently do not know the overall health profiles of FTM transgender people and their risk behaviours and contexts. Therefore, there is a major gap in research. Finally, when conducting research among transgender people, investigators need to not only be gender sensitive, but also treat transgender participants with dignity.



## **IV. E-mail questionnaire to regional, subregional and local transgender networks**

To complement the findings of the literature review, a rapid qualitative survey was implemented in order to obtain first-hand information from various countries in the Asia Pacific region on the status of health-care services for transgender people, as well as their specific needs and concerns.

### **Methods**

A semi-structured, open-ended survey in English was developed in partnership with regional network partners APTN and APCOM. To do this, the author of this report met with members of APTN and APCOM in December 2011 at the APTN interim board meeting in Bangkok, where the author presented and discussed the objectives of this regional assessment and the semi-structured survey. Ideas were generated at this meeting, which aided the assessment activities, and board members approved the study and agreed to facilitate data collection. A draft of the survey was sent to a few leaders of the two organizations to obtain feedback, and the survey was subsequently revised. The final survey contained eight open-ended questions with some sub-questions (see Appendices 1 and 2), and was e-mailed to (1) APTN board members, (2) APCOM leaders, (3) chairperson of the Society of Transsexual Women of the Philippines (STRAP), (4) UNDP Asia Pacific focal points, and (5) some transgender advocates working in communities throughout the region.

In addition, a network partner in China translated the questionnaire and sent the translated version to a Chinese transgender network. Responses were in Mandarin and the questionnaire was then back-translated to English by the same network partner. A WHO staff member at Regional Office for the Western Pacific checked and verified the translated responses. Additionally, one partner in Cambodia worked with a professional translator and together they responded to the survey in English. For Thailand, informants were permitted to answer the survey in Thai and the author translated all 10 responses.

Between December 2011 and February 2012, e-mail responses came back to the author. In March 2012, the information was combined and themes/domains were created to reflect the responses.

## Findings

Seventy-five informants in nine countries responded to the open-ended survey (see Table 4). Most of these were from China ( $N = 45$ ) and all but five were MTF transgender people (responses of FTM and MTF transgender people were kept together because they were similar). Only six informants were from a developed country in Asia (Singapore), and there was only one response from the Pacific (Fiji). Local terms were asked for and the responses varied across the region (see Table 5 for local terms by country).

**Table 4. Survey respondents by country**

Country	N (%)
Cambodia	1 (1.3)
China*	45 (60.0)
Fiji	1 (1.3)
Indonesia	1 (1.3)
Malaysia	2 (4.4)
Nepal	1 (1.3)
Philippines	8 (10.7)
Singapore	6 (8)
Thailand	10 (13.3)
TOTAL	75 (100)

\* Responses from China were from the following cities/provinces: Beijing, Shenzhen, Weifang, Harbin, Ji'nan (Shandong), Taizhou, Xuzhou (Jiangsu Province), Guangzhou, Luzhou City (Sichuan Province), Mianyang, Chengdu, Shanghai, Lanzhou, Manchuria (Inner Mongolia), Tianjin, Tianchang (Chuzhou Prefecture, Anhui Province), Langfang, Hongkong, Changsha, Fuzhou (Fujian Province), Chongqing, Jilin Province, Zigong, Nanjing, Hohhot, Qingdao, Hohhot (Inner Mongolia)

### Access to health-care services

Most informants said that government hospitals and clinics are the first access points. However, several informants expressed concerns related to social stigma and discrimination from hospital/clinic staff in these settings. For example, during hospital/clinic registration, legal documents such as identification cards are required and often, the gender expression and the assigned gender at birth do not match, which then leads to various forms of discrimination from the staff at these health-care settings. Since many transgender people cannot afford private clinics/hospitals or even specialists (e.g. psychiatrists, endocrinologists), they have no choice but to go to these settings and endure the social and emotional suffering they are subjected to. Some informants, however, avoid going to hospitals and clinics altogether and try to cope/deal with their health conditions themselves through self-medication at pharmacies or through peers, or by postponing testing, screening and treatment.

**Table 5. Local terms for transgender man and transgender woman**

Country	Terms used
Cambodia (TGW)	Srey sros
Cambodia (TGM)	Srey srolanh srey
China (TGW)	Ren Yao, Yao Jing, Yao Nie, Ying Yang Ren, Niangniangqiang, Bianxingren, Hong Yiren, Fan Chuan, Di San Xing, Bianzhuang, Bianzhuang pi, Yi Zhuang, Yi Zhuang pi, Gei You, Tuzi, Bo Li, Wei Niang (pseudo-girls), Tong Zhi, Kuaxingbie, CD, TS, SHEMALE, Shenjingbing, Bu Nan Bu nv, Piaopiao, Bian Tai, Mu Xing, Natype, "gay" lao, Bian Tai Ren, Huo, Zhongxingren
China (TGM)	Nanrenpo, Ji Xiaozizi, Lei Si, La La
Fiji (TGW)	Vakasalewalewa
Fiji (TGM)	Baraca
Indonesia	Waria, bisu, calalai, calabai
Malaysia	Mak nyah
Nepal	Meti, tesrolingi
Philippines (TGW)	Transpinay, trans, bakla, pa-girl, bayot, mahuyang, bading, binabae
Philippines (TGM)	Tibo, tomboy, lesbiana
Singapore (TGW)	Sister, ah quah
Singapore (TGM)	FTM, transman, transguys, transsexual, transgender
Thailand	Kathoey, saopraped song, phuyingkamped

Some informants who can afford to go to private clinics/hospitals prefer them to government clinics/hospitals. Services accessed in these settings include general check-ups, hormone treatment, cosmetic surgeries and HIV/STI testing. Some informants mentioned that HIV testing in these settings is often provided without pre- and post-test counselling. Some informants stated that often medical providers had never treated transgender people before, particularly FTM transgender people or transgender men.

Some informants mentioned visiting nongovernmental organizations/community clinics. Free HIV/STI testing is frequently offered here but informants complained that these are MSM-targeted and they do not feel welcome there. The health services

offered included general check-up, mental health, STI and HIV testing. Informants from Malaysia and Thailand said that there are nongovernmental organization-led, transgender-specific health-care services/clinics in Kuala Lumpur (PT Foundation) and Pattaya (SISTER and HON House). Some of these services include HIV and STI testing, hormone consultations, treatments and injections. But for most informants, these transgender-specific health-care services do not exist in their areas.

More common and accessible health care tended to be provided through street vendors and pharmacies. Some participants visit *Sing Sei* (Chinese medicine shops) to obtain various medicines cheaply, such as antibiotics. Others visit pharmacies to obtain various medicines and contraceptive pills (self-medication of hormones), while others rely on non-medical professionals for silicone injections.

### Barriers to health-care access

Barriers to health-care access can be summarized as (1) not having services at all for transgender people, and (2) having services available, but that accessing and receiving these services were hampered by stigma and discrimination. Several informants stated that health-care providers were not knowledgeable about transgender-specific care and treatment. For many informants, there were no providers who were familiar with hormone treatment, surgical procedures, silicone injections and SRS. Informants also mentioned that some general providers do not even want to treat them. Without proper consultation, the reality for many informants is to overdose themselves with hormones in order to transition in the shortest time possible, without being aware of the side-effects or long-term consequences of use.

Informants who have access to health-care settings where they can go for general health care and transgender-specific care face personal humiliation, social stigma and discrimination. Moreover, health-care staff are not sensitive to the different sexual practices of transgender people (e.g. MTF transgender people as penetrators during sexual intercourse), and often call transgender people by their birth names and salutations like “mister” or “miss”, instead of being more gender neutral or respecting the gender expression and presentation of their patients. Other examples included being placed in male wards (instead of female wards) when admitted to a hospital. As a result, many informants feel uneasy about being in hospital and want to leave as soon as they can, sometimes without accessing other services (e.g. prevention, mental health services). Finally, there are no laws or policies that specifically protect transgender people from stigma and discrimination, outside of the rights of a patient.

### Transgender health information

Informants almost unanimously said that they obtained health information on transgender people from their friends (peers or older transgender people with more experience) and the Internet (e.g. web sites and discussion forums/blogs). Some examples of Internet websites and blogs are *Xiashilian* and *Weibo* for China and *www.tlbz.me* for Thailand. Very few mentioned health-care professionals as a source of information on transgender health. Some (non-Thai) informants mentioned that they would visit clinics and hospitals in Bangkok whenever they were visiting or

transiting through Thailand in order to obtain transgender-specific information and access transgender-specific health services. Informants were also concerned about the integrity of transgender-specific health-care information, since there is no central authority that regulates and monitors the information. Some informants just make sure they stay healthy. Techniques included yearly check-ups, exercise, dieting, alternative medicine (e.g. herbal), and “trying hard to not become sick”.

### Major health needs and concerns

With regard to needs and concerns, the responses can be grouped into three major themes: (1) societal acceptance and sensitivity, (2) access to transgender-friendly health-care services and transgender-specific health care (e.g. hormone treatment), and (3) access to condoms, water-based lubricants, and HIV and STI testing.

Acceptance of and sensitivity to transgender people are broad and meant to also include support from peers and family, as well as sensitivity and acceptance from communities and in health-care settings. Many times there is such high social stigma from the broader society that it inhibits transgender people from seeking health care and preventive health services, including HIV and STI testing. Informants, particularly from China, said that it was difficult to even find other transgender people and hence difficult to form a transgender community. Most often, they relied on the Internet and “net friends” for social and medical advice. Some informants were also worried about employment and job security since they felt that they were discriminated against due to their gender presentation and expression.

In addition, informants were concerned that general health-care services were not transgender-friendly. Often, transgender people have difficulty in accessing general health-care services because they feel that the health-care setting is not friendly to them. Moreover, there is limited access to quality and affordable transgender-specific services. These transgender-specific services need to include surgery, sexual health, reproductive health, psychological and emotional support, and hormone treatment. Some informants were concerned about the possible side-effects of prolonged hormone use on their bodies, their general health and well-being. Some informants mentioned that while there were some accessible transgender-specific services in their communities, there was no standard of care to guide (and regulate/monitor) these services. Some were also concerned about the discretion and confidentiality of health-care providers.

Informants said that access to condoms, water-based lubricants, and HIV and STI testing are major needs in their communities. In many places, these services do not even exist, or if they do, they cater to other key populations (e.g. MSM, female sex workers, male sex workers). Thus, informants do not feel comfortable accessing these services with other populations and, as a result, do not access any health-care services at all.

## Community recommendations to governments

1. Recognize transgender people with equal rights and protection under the law (anti-discrimination and social equity laws are needed). Laws and policies that currently marginalize transgender populations should be repealed/removed.
2. Create a friendly, non-judgemental and enabling health-care environment for transgender people (moral and religious values should not be imposed in health-care settings).
3. Establish strong linkages/relationships between local transgender and lesbian, gay, bisexual and transgender (LGBT) organizations and the government, WHO and professional medical associations, so that the needs and concerns of transgender people are regularly updated.
4. Provide and improve sex education in schools to include gender diversity and fluidity.

## Community recommendations to WHO

1. Stop “pathologizing” transgender people by removing the terms “transsexuals” and “Gender Identity Disorder” from the *International Statistical Classification of Diseases and Related Health Problems* (ICD)-10.
2. Involve transgender people as equal partners in research, and always involve and consult the transgender community on anything related to their health.
3. Develop technical guidelines for transgender health to include HIV/STI, sexual health, hormone treatment, surgeries and mental health.
4. Provide support to establish the good practice of a subsidized transgender clinic or hospital.

## Discussion

While this was a rapid qualitative assessment of network partners and had notable limitations (such as 60% of responses coming from China), it was still very useful for understanding the contexts of health-care access, and related needs and concerns of transgender people living in different contexts in different countries throughout the region. The most common survey response was the desire to be treated equally with respect and dignity, like any other sub-population. This response reflects how transgender people throughout the region are being pushed to the margins of society and treated like second-class citizens in their own countries. It is therefore not surprising that informants are not happy with the current health and health-care situation in their communities.

Some informants did not have access to health-care services at all and, in places where there was access, informants experienced humiliation, stigma and discrimination from health-care providers. Due to costs and lack of medical professionals knowledgeable in transgender health, informants often obtained information from their friends or online, and self-medicated with hormones or visited street vendors and other non-licensed providers for silicone injections and other procedures. These practices put transgender people at risk. Further, it was identified that there are HIV testing sites that do not provide pre- and post-test counselling.

Informants did not speak directly about stress and stress associated with being stigmatized and discriminated; informants indirectly implied stress because they mentioned a desire to have access to mental health and counselling services. While informants had different ways of keeping themselves healthy, one informant said this: “[I] still smoke like crazy, drink as I please. Die a beautiful corpse is my wish but sadly time is not on my side.” Without adequate interventions and appropriate health-care services, transgender people may feel fatalistic in a society where they are often not accepted and treated like second-class citizens.

This rapid e-mail survey had some limitations. While access is increasing in several places throughout Asia and the Pacific, it still is very difficult and expensive to access computers and the Internet. Further, language is a barrier for many community members in the region. It was easier to obtain responses from countries where English is commonly used (e.g. Malaysia, the Philippines, Singapore). Surprisingly, there were no responses from South Asia (e.g. India, Sri Lanka). Due to the rapid nature of this assessment, there was not adequate time to translate the questionnaire into all languages. If a similar survey is to be sent out to network partners in the future, it should at least be translated into some of the major languages in the region.

An informant from Singapore said that being in a developed country is problematic for obtaining international funds because, though they are in a developed country with existing resources and infrastructure, their government conveniently overlooks transgender populations and thus they are underserved and marginalized in a resource-rich country. This is an important point for international donors and multilateral organizations providing technical support.

## **Conclusion**

In conclusion, transgender people throughout the region are still very much underserved and have limited access to transgender-specific health care. When accessing general health care, they are often humiliated, stigmatized and discriminated.

Governments throughout the region need to be sensitive to these current realities in many parts of Asia and the Pacific, and should urgently work towards creating a safe and enabling health-care environment if we are to achieve equal access for all.

## V. Focus group discussions with STRAP in Manila, Philippines

In order to triangulate the findings from the desk review and the e-mail survey, FGDs were conducted with transgender people. Since the WHO Regional Office for the Western Pacific is located in Manila, Philippines, FGDs were conducted in Manila to develop a relationship with a local transgender advocacy and community-based organization, STRAP. Moreover, a qualitative understanding of the health of transgender people in the Philippines is limited and, until now, not documented.

### Methods

Using a community-engaged process, four FGDs were conducted in English and in full partnership with STRAP during December 2011–January 2012 among 20 MTF transgender Filipinas (*transpinays*) in Manila. STRAP aided with the recruitment and retention of participants, who varied with respect to age and body-transitioning experiences. Participation was voluntary and confidential. Each group had different recruitment criteria to reflect the topic of discussion. The groups included young *transpinays* (18–25 years), *transpinays* currently using hormones or who had undergone surgical procedures or implants, current sex workers and current sexually active *transpinays* (non-sex workers). Each FGD lasted between two and three hours and was conducted at a safe and easily accessible location in Manila, where STRAP usually hosts their social activities. Participants were financially compensated for their time and travel costs. Thematic analysis and grounded theory was used for all data analysis.

“It’s so hard to live peacefully or to have a life, period, if people don’t see you like how you see yourself.”

### Findings

All *transpinays* who participated in the FGDs were above the age of 18 years, with most in their early-to-late twenties, and had begun transitioning (e.g. hormones, implants/injections, surgical procedures) within the past 10 years. The major findings are given below, grouped into the following categories: transgender health-care services, hormone use, HIV and STI risks, and implants and surgical procedures.

#### Transgender health-care services

Participants expressed concerns regarding access to transgender-competent health-care services. Currently, there is no dedicated transgender health-care centre or clinic anywhere in the Philippines. Many times, “transgender-targeted” services



are grouped with MSM-targeted services, where participants often feel uncomfortable because they do not want to be identified as men and, at the same time, feel stigmatized by both MSM staff and MSM clients there.

Participants also shared several experiences of being stigmatized at health-care settings when their gender presentation and sex at birth did not match (e.g. medical forms/records and legal documents). Health-care personnel such as receptionists, nurses, physicians and other staff members often made them feel embarrassed and ashamed of their bodies, and treated them with less than adequate respect and dignity. As a result, several *transpinays* choose not to access health-care at all. *Transpinays* who can afford private care choose to go to private clinics and hospitals, although some of these services may be less than competent.

Participants also expressed concerns that currently there are no guidelines for or recommendations on different aspects of transgender health for health-care providers. Medical school curricula and other formal medical training do not have information on transgender health. As there is no standard of care available, there is no way to standardize and monitor the quality of health care for transgender people. Consequently, participants self-medicate after taking advice from other *transpinays*, through word of mouth and through the Internet. Those who are fortunate to have open-minded caregivers bring transgender health information to their health-care providers in order to educate them about their bodies. For some participants, there are very few options to affirm their gender identity and they end up visiting “quack doctors” (unlicensed health-care providers) to receive medical advice and have procedures performed at a much cheaper cost than going to licensed health-care providers who often discriminate against them.

### Hormone use

For several participants, hormone use started relatively young, usually during adolescence. For most, hormones were acquired as contraceptive pills sold over the counter at pharmacies at the cost of approximately 300 pesos (approximately US\$ 7) per package. However, several participants stated that they would double or triple their dosage when they started to see the gender-affirming changes in their bodies. Physical changes included the emergence of breasts, softening of the skin, and decrease in hair growth at different sites of the body. There were also emotional/psychological changes that included feeling more feminine, being happier in their new bodies, and being more confident. Some participants used hormone injections while some obtained hormones from health-care providers through written prescriptions. Knowledge of hormone use is acquired primarily from older or more experienced *transpinays* and the Internet. Participants stated that very few endocrinologists were *transpinay*-friendly. Participants also noted that hormone use was very much a trial-and-error process. Participants described hormone use as finding one's *hiang*, or the right fit. This requires many participants to experiment with their own bodies until they find the right dosage/brand. Some of the side-effects mentioned were mood changes, agitation, hot flashes, feeling sad/depressed, difficulty in memorizing, dizziness/migraine, decreased sexual libido, difficulty in obtaining (and sustaining) erection and ejaculation, and

“I started transitioning when I was 11 years old...I self-medicate using estrogen and anti-androgen, knowing it from them [transgender peers]...medications [were] available over the counter in pharmacies.”

decreased volume of the ejaculate. Concerns from participants included the long-term effects of hormone use, access to care providers who could advise and monitor use, and interactive effects of hormone use with HIV/STI risks.

#### HIV and STI risk

Almost all the participants stated that they had not been tested for HIV infection and none had been tested for any STI. Reasons included not having access to transgender-friendly testing facilities and the social stigma surrounding HIV (i.e. they felt they were better off not knowing). Knowledge of HIV testing was also low, with most not knowing where to get tested or screened for

STIs. Sexual debut was early, usually during adolescence, before the age of 18 years and without condoms. Condom use was not consistent and depended heavily on availability and perceived risks, particularly when it pertained to the social meaning of the sexual partner (e.g. sex with steady/romantic partners were usually without condoms). *Transpinays* engaged in receptive as well as insertive anal intercourse with their partners, and the Internet played a pivotal role in finding sexual partners. While most participants were aware that condom use would protect against HIV infection and STI, condoms were not used consistently. Condom use depended on availability and “in-the-moment” urges and feelings. Most participants also mentioned that hormones tended to decrease their sexual libido and hence decreased sexual activity. However, once hormone use was stopped, the libido again increased manifold. Several participants were also concerned about the interaction of hormones with HIV/STI risks. Substance use among participants was not common. Interestingly, very few participants knew of *transpinays* who were HIV-positive. Participants explained that there is huge stigma around HIV-positive people in the Philippines and even among *transpinays* themselves, and so it was not common to disclose one’s HIV status.

“When I was young, during my first time, to be honest, I wasn’t aware of that [condoms] before because I really knew nothing about sex...”

“I didn’t want to take the [HIV] test because I was scared...I’d rather not know.”

“For me, I think it’s mostly the trust that the person doesn’t sleep around...and when you’re comfortable with that person and trust that person 100%, then you would feel ok having sex with that person without a condom.”

“But there are times when I go bareback [unprotected anal intercourse]...I must admit I do bareback sex when drunk ...but not like all the times...I know the risks.”

## Implants and surgical procedures

Several participants had undergone some form of gender-affirming implants or cosmetic/surgical procedures. These include facial (forehead, nose, etc.), hip, breast and Adam's apple shaving. Other participants were planning to have procedures done in the future when they were more financially secure. However, SRS is not common in the Philippines due to the high costs and the limited number of local surgeons able to perform these procedures. More importantly, several participants stated that they did not desire to undergo SRS even if presented with the opportunity. Some feel, for example, that the penis is a part of "who they are". *Transpinays* explained that surgical procedures and implants are often done by non-licensed medical providers, since private clinics can be very costly. Instead, participants would visit "quack doctors" (non-professional local providers) because they were much more affordable, although there was no quality control.

## Discussion and conclusion

Aside from the major themes presented above, several smaller themes emerged. These included finding and having a romantic partner who would accept *transpinays* for who they were – a transgender individual. Other themes were acceptance from the family and society at large, mental health issues, dealing with stress, physical coercion, the role of religion in their transitioning, and ageing. These concerns suggest that participants do not have much social support, primarily due to social and familial stigma and discrimination, which has pushed many *transpinays* to the margins of society.

HIV/STI prevention programmes must be sensitive and innovative to reach Internet-using *transpinays* who do not access the usual health-care venues. At the same time, these prevention programmes must be different from programmes for MSM, and must recognize and respect *transpinays* so that they can live in society with dignity and without discrimination.

Self-medication with hormones is a reality among *transpinays* in the Philippines. Access to care providers with some knowledge of hormone use is still very limited. Moreover, many participants visit unlicensed "quack doctors" because surgical procedures and implants

"The reason why most transwomen go out of the country is because they can live a normal life there, they can blossom, they can show their potential without any prejudice...I love the Philippines, I would stay here if the situation is different."

"My [nursing school] clinical instructor won't allow me to have long hair...I didn't want to cut my hair and so I gave up the Bachelor of Science in Nursing to be what I am..."

related to transitioning can be very expensive in private clinics. As a result, there may be unforeseen risks associated with this practice among *transpinays*. While priority is currently placed on HIV/STI surveillance and prevention programmes, hormone use and surgical procedures/implants are common practices among *transpinays* and must also be addressed by public health professions and researchers.

There were limitations to this small study. First, because of the rapid nature of this assessment, only four FGDs comprising 20 individuals were conducted and analysed. Another limitation was that the FGDs were conducted in English only, and hence may have excluded some *transpinays* who may not have been fluent in English. Since the author of this report was the facilitator, some answers may not have been as honest as if the facilitator was a *transpinay* living in Manila. Finally, these FGDs were meant to highlight the social contexts of transgender health from the community itself in one of the settings within the region. While this may not be generalizable to all cities in the region, the findings from FGDs confirmed the findings from the e-mail surveys from other transgender people around the region. Despite these limitations, to our knowledge this is the first qualitative documentation of *transpinays'* health experiences and related contexts, which can be used to inform current prevention and intervention programmes and public health policies.

## VI. Synthesis and technical action points

This report is the first commissioned by WHO to focus exclusively on transgender populations in the Asia Pacific region. Recent reports on HIV, STI and sexual health by WHO have primarily focused on MSM populations.<sup>25,26</sup> United Nations agencies including WHO and UNDP may consider modifying current approaches and practices when dealing with transgender people in general, and transgender health in particular.

The findings from this assessment suggest that transgender populations are vulnerable in many respects and have important needs and concerns that should be addressed urgently. The following priority actions/conclusions informed by the desk review, and additional supplements from communities within the region, are given below.

### Priority action 1

**It is important that transgender people are accepted and recognized as having equal rights and dignity, which are protected under the law.**

- a. *Efforts to repeal the existing laws that discriminate or stigmatize transgender people and to put protection laws in place (e.g. employment, hate crimes, antidiscrimination) may promote equality.*

Transgender people across the region have limited social, political and economic opportunities. Existing laws in several countries across the region discriminate and stigmatize transgender people, which subsequently marginalize them in society. Protection laws will help ensure that transgender people have equal access to services and opportunities, and equal rights.

- b. *Official and legal recognition by governments of transitioned gender identity on legal documents including passports, national identification cards, birth certificates and equivalent documents may improve several aspects of the lives of transgender people. Conditions for recognition which require individuals to undergo medical procedures they would not otherwise choose to undergo are considered undesirable and unnecessary.*

Informants from both the e-mail surveys and FGDs indicated that legal recognition from the government is extremely important for many reasons, including access to social and health-care services, international travel, living with dignity and equal rights. Informants felt strongly that medical procedures need not be forced or coerced in order to achieve that legal recognition.

- c. *Consulting with transgender organizations and leaders will would help in the development of optimal national and regional programmes, initiatives, research and policies.*

Transgender community members who face the everyday realities of their transitioning (and transitioned) lives will be able to give ideas, input and feedback on research design and programme implementation.

- d. *There is an urgent need to support the development and capacity-building of transgender-serving organizations.*

While there are now numerous MSM-serving organizations across the region, there are fewer organizations targeting and serving transgender people. Ideally, resources are also devoted to support and build capacity for transgender-specific organizations in the region.

- e. *Removing the categories of Gender Dysphoria/Gender Identity Disorder from the Diagnostic and Statistical Manual of Mental Disorders (DSM-5)\* and from Chapter 5 (Mental and behavioural disorders) of International Statistical Classification of Diseases and Related Health Problems (ICD-11) \*\* would help reduce medical discrimination against transgender people.*

Several informants of the e-mail survey said, “stop pathologizing transgender people”. Having been labelled as disordered or diseased, transgender people are further discriminated against, and seen as abnormal by medical professionals and society at large. Informants from Thailand said that since Gender Identity Disorder is currently regarded as a psychopathological condition, transgender people are not allowed to attend medical or health sciences-related schools or apply to become medical professionals, or even work at hospitals/clinics.

## **Priority action 2**

### **Increased knowledge and sensitivity among health-care personnel will help eliminate stigma and discrimination of transgender people in public and private care settings.**

- a. *Incorporating transgender health throughout the teaching curricula of all health professional schools (e.g. health technicians, medical, nursing, pharmacy, social work) is encouraged.*

In order to decrease social stigma and discrimination by health-care workers, providing them with adequate information early in their training is encouraged. It is therefore beneficial to incorporate transgender health into the teaching curricula of all health professional schools.

- b. *Regular training for health-care personnel, including non-medical staff (e.g. receptionists), will help ensure continued efforts towards better health care for transgender people.*

Existing personnel are encouraged to undergo compulsory informational and sensitivity training on transgender populations in general, and transgender health in particular.

- c. *Laws and policies that ban discrimination in health-care settings are necessary.*

In addition to trained health-care staff, laws and policies to protect transgender people will further help prevent discrimination. Explicit laws, stating that discrimination based on gender identity or expression is illegal in health-care settings, will be preferred.

- d. *It is important for bodies governing health care to have oversight and be charged with responsibilities for monitoring and maintaining standards of care and handling cases of misconduct, including handling complaints and sanctions.*

It is preferable that standards of medical practices related to transgender health are monitored and maintained with the same rigour as standards in other areas of medical practice.

- e. *Establish centres of excellence/collaborating centres on transgender health.*

The region may benefit from centres of excellence or collaborating centres on transgender health. These centres will exert leadership in providing lessons learnt and guidance on best practices and research on transgender health throughout the Asia Pacific region.

### **Priority action 3**

#### **A comprehensive standard of care for and guidelines on transgender health may be beneficial to both transgender patients and health-care providers.**

- a. *A standard of care specific to the Asia Pacific contexts is important for sexual and general health care.*

The desk review revealed that there is scarce research on sexual health and general health care of transgender people in the region. Moreover, currently, there is no guideline to recommend best practices with regard to sexual health and general health care of transgender people in the Asia Pacific region. For example, guidelines for transgender-specific HIV treatment literacy, particularly around the interactive effects of hormone use and antiretroviral therapy (ART), that are specific to the Asia Pacific region may be highly beneficial. This is where WHO can play a pivotal role.

- b. *A standard of care specific to the Asia Pacific contexts is important for hormone and silicone use, and for surgical procedures relating to transitioning of the body (physical and psychological).*

Currently, several standards of care manuals/guidelines are available (e.g. by the World Professional Association for Transgender Health [WPATH] and the University of California, San Francisco [UCSF] Center of Excellence for Transgender Health). However, there is no guideline that takes into account the specific and unique socioeconomic and cultural contexts relating to hormone and silicone use, or surgical procedures of transgender people in the Asia Pacific region.

#### **Priority action 4**

#### **Affordable and convenient access to health care specific for transgender people is strongly encouraged.**

- a. *Transgender people may greatly benefit from the availability and accessibility of gender-affirming procedures, such as hormone treatments and their monitoring, as well as implants and surgical procedures.*

In the e-mail survey and FGDs, hormone treatment was a major concern expressed by transgender people. However, this area was also the least documented in the international biomedical literature from the region. Transgender people in the region felt that hormone use was an integral part of the transitioning process, and that hormone availability and accessibility was a major concern. For those who had access, hormones were acquired through the use of contraceptive pills sold over the counter at pharmacies. In places where hormones were not available in pharmacies, transgender people had to rely on illegal hormone imports or on “quack doctors” and unlicensed providers. Similarly, those who did not have access to surgical procedures, implants or silicone injections would visit quack doctors or rely on more experienced peers. These activities put transgender people at risk.

- b. *Preventive and general health care are necessary.*

Since transgender people are stigmatized in health-care settings, they seldom access preventive and general health care, and access medical providers only in extreme or emergency situations. Providers may not think about screening or prevention when dealing with transgender people. Preventive care is therefore a necessary part of transgender health (i.e. prostate screening for transgender women).

- c. *Availability and accessibility of mental health services may also be beneficial for transgender people (e.g. by having accessible, supportive, competent health-care professionals with whom transgender people can discuss transitioning issues, stress relating to social stigma and discrimination, as well as stress and anxiety relating to transitioning).*

Several survey informants and FGD participants were concerned about mental health. Several transgender people lacked social support; someone to talk to about their transitioning experiences, and about coping with community and societal stigma and discrimination. Therefore, it is important that competent psychologists/counsellors are easily accessible to transgender people.

#### **Priority action 5**

#### **Combining the collection of strategic information through transgender-specific surveillance in the region with more operational and social research will be helpful in understanding transgender health specific to the contexts of Asia and the Pacific.**

- a. *Regular surveillance for HIV and STIs among transgender people in the region is necessary.*



The findings from the desk review showed that HIV and STI prevalence among MTF transgender people is high. Therefore, regular, sustained provincial and national surveillance is important in keeping track of this epidemic trend in countries that have begun surveillance activities. For all the countries in the Pacific and North Asia, where there were no data on HIV and STI, beginning an assessment of HIV and STI is necessary. Ideally, counting transgender populations and presenting their data is done separately from MSM, in order to inform budget allocations and health sector responses.

Furthermore, WHO may consider modifying country surveillance reports where transgender people are not differentiated from MSM, and transgender sex workers not differentiated from female or male sex workers (see Figure 3). Refer to Appendix 2 for an example of two questions from the University of California, San Francisco (UCSF) Center of Excellence for Transgender Health, which validate a person's gender identity as well as understand their history.<sup>70</sup>

*b. Operational research on module/training development is necessary.*

Operational research that includes the development and implementation of training modules and interventions is needed. For example, a transgender health training programme may be included in the curricula of medical and health professional schools and includes not only evidence-based aspects of transgender health, but is also sensitive to the local sociocultural contexts.

*c. It is important to study the effects of long-term use of hormones.*

Transgender people were also concerned with the long-term use of hormones and its effects on general health. Older transgender people in the FGDs held in Manila, Philippines, for example,<sup>43</sup> had stopped using hormones for fear of the consequences, such as developing chronic conditions like cancer or heart disease. Currently, there is scarce information on the long-term impact of hormone use. Existing studies are limited to hormone replacement therapy among postmenopausal women in Western countries.

*d. Research to examine the interactions between the use of hormones and other health risks (HIV/STI, cardiovascular diseases, cancer) and medications may further benefit transgender health in the region.*

A technical statement was recently released by WHO on hormonal contraception and risk of HIV infection.<sup>71</sup> However, this statement was for women only and did not extend to MTF or FTM transgender people, who are also an affected population. In the systematic review conducted for this statement, all studies that were retrieved and reviewed focused on women only and did not include transgender people. This lack of data among transgender people should have been acknowledged in the statement. This is an example of transgender populations being excluded in international debates and discussions on disease outcomes and conditions relevant to them. Therefore, more research that includes transgender people is urgently needed.

*e. It is necessary for HIV research to involve HIV-positive transgender people.*

While the desk review in this report showed that HIV surveillance and prevention

activities among transgender people in the region were scarce, there are currently no studies in which HIV-positive transgender people are included. Research on topics such as access to HIV testing and returning for the test results, disclosure of HIV status, and secondary HIV prevention is encouraged. Within larger MSM research studies, it is important to differentiate transgender participants from MSM participants in the data analysis.

- f. *It is important to conduct research on HIV transmission risks and the overall health of transgender men.*

Current epidemiological and behavioural research does not include transgender men. The extent to which transgender men are at risk for HIV infection/STI, for example, is not well understood. Moreover, the long-term health consequences of hormone use, implants and surgical procedures are not known. How transgender men access obstetrical/gynaecological care and breast cancer screening, for example, are not well understood. More research that goes beyond traditional HIV risk indicators is needed in this area.

- g. *Research on the social determinants of transgender health is also necessary.*

Currently, research on the social determinants of different transgender health outcomes is scarce. Current research tends to focus on risk-factor epidemiology/ individual-level indicators, and needs to include interpersonal/peer, community, institutional, structural and policy/systemic aspects.

- h. *Issues related to ageing of transgender people are also important to examine.*

Several survey informants and FGD participants were concerned with issues related to ageing. These topics ranged from healthy physical and emotional ageing to end-of-life care services. Transgender people were concerned about who would take care of them when they were older and could not support or care for themselves. Would they, for example, be able to access convalescent facilities and hospices and still be able to present and express their desired gender?

- i. *It is necessary for research to be inclusive of transgender young people.*

Similar to MSM research studies, transgender young people are often not included in surveillance, clinical trials and other research studies. It is important to understand early the risk and developmental contexts of young transgender people in order to have baseline data available to inform intervention development. The e-mail surveys and FGDs both confirmed that transgender people begin experimenting with hormone use very early in their teens. Additionally, sexual debut is also early, usually before the age of 18 years. These findings point to the urgency of including young transgender people in research and surveillance activities. However, investigators must also ensure that adequate protection for human subjects, informed by the Declaration of Helsinki, are put in place.

**Figure 3. WHO surveillance country report requirements for key affected populations**

### Surveillance and Monitoring and Evaluation (M&E)

#### I. Surveillance

I.a Does the country carry out systematic surveillance in:

	Systematic surveillance conducted (Yes/No)	Periodicity (every "x" years)	Location
(i) ANC attendees?	<input type="text"/>	<input type="text"/>	<input type="text"/>
(ii) a. MARPs: sex workers?	<input type="text"/>	<input type="text"/>	<input type="text"/>
(ii) b. MARPs: IDUs?	<input type="text"/>	<input type="text"/>	<input type="text"/>
(ii) c. MARPs: MSM?	<input type="text"/>	<input type="text"/>	<input type="text"/>
(iii) Other specific population (please specify below) <input style="width: 100%;" type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

I.b Does the country carry out DHS surveys with HIV testing?  
If Yes, what is the periodicity?

	Yes/No	<input type="text"/>
	Every 'x' years	<input type="text"/>

I.c Have sexual and drug use behaviour surveys (general population surveys or behavioural surveillance surveys) been conducted in the country?

	Yes/No	<input type="text"/>
	Years	<input type="text"/>

Which population groups were included?

ANC - antenatal clinic    DHS - Demographic and Health Surveys    IDU - injecting drug users    MARPs - most-at-risk populations

- a DSM-5 (previously known as DSM-V) is the planned fifth edition of the American Psychiatric Association's (APA) Diagnostic and Statistical Manual of Mental Disorders. It is due for publication in May 2013 and will supersede the DSM-IV, which was last revised in 2000.
- b The International Classification of Diseases (ICD) is the standard diagnostic tool for epidemiology, health management and clinical purposes. This includes the analysis of the general health situation of population groups. It is used to monitor the incidence and prevalence of diseases and other health problems. ICD-10 came into use in WHO Member States as from 1994. The 10th edition will be in use until 2015. The 11th version is due for approval by the World Health Assembly in May 2015.

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## Appendix 1: Sample survey

Country/city you live in \_\_\_\_\_

About how many transgender people are living in your city? \_\_\_\_\_

Transgender men? \_\_\_\_\_

Transgender women? \_\_\_\_\_

1. Please describe the local terms for a transgender woman or transgender man in your country. \_\_\_\_\_

2. Please describe any health services (general check-up, hormone, surgery, sexual health, mental health, STI, HIV) that you currently have access to in your community. \_\_\_\_\_

Government hospital/clinic: No/Yes –please describe \_\_\_\_\_

Private hospital/clinic: No/Yes—please describe \_\_\_\_\_

Nongovernmental organizations/Community clinic: No/Yes—please describe \_\_\_\_\_

Street vendors/friends/others: No/Yes—please describe \_\_\_\_\_

3. Please describe any barriers (for example, stigma, legal) you or your peers have faced in accessing health services in your community.

4. Where do you usually access information on transgender health?

5. What steps do you take to keep yourself healthy?

6. What are the major health needs and concerns of transgender people in your community? In your country?

7. What recommendations on transgender health would you make to your government and the World Health Organization (WHO)?

To your government: \_\_\_\_\_

To WHO: \_\_\_\_\_

8. Is there anything else you would like to add/comment on?

\_\_\_\_\_

## Appendix 2: Sample questions for inclusive data collection of transgender people

Example of the 2 questions and answer choices:

1. What is your sex or current gender? (Check all that apply)

- Male
- Female
- TransMale/Transman
- TransFemale/Transwoman
- Genderqueer
- Additional category (Please specify):

---

Decline to state

2. What sex were you assigned at birth?

- Male
- Female
- Decline to state

Source: UCSF Center of Excellence on Transgender Health.  
Available at: <http://transhealth.ucsf.edu/trans?page=lib-data-collection70>



Transgender people are often defined as people whose gender identity and/or gender expression differs from their biological sex assigned at birth. Transgender populations appear to have one of the highest prevalence rates in some Asian cities and countries, ranging from 8% to 31%. Throughout Asia and the Pacific region, transgender people are still highly underserved and have limited access to transgender-specific health care.

This report aims to assess the state of transgender health in Asia and the Pacific. The assessment includes current concerns related to HIV, STI and sexual health, as well as technical recommendations to WHO and the governments of Member States.



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