



Sexual and Reproductive Health Research in Sri Lanka

Current Status, Challenges and Directions

**The Family Planning Association of Sri Lanka
2019**

**Sexual and Reproductive Health Research
in Sri Lanka
Current Status, Challenges and Directions
(2010-2019)**

Published by
Monitoring & Evaluation Unit
The Family Planning Association of Sri Lanka
2019



The Family Planning Association of Sri Lanka is the premier sexual and reproductive health organization in Sri Lanka which was established in 1953. It seeks to promote multiple aspects of reproductive health and improve the quality of life.

FPA Sri Lanka is an accredited member of IPPF.

Sexual and Reproductive Health Research in Sri Lanka
Current Status, Challenges and Direction (2010-2019)

First Published in December, 2019

by FPA Sri Lanka

No. 37/27, Bullers Lane, Colombo 07

Sri Lanka

Website: www.fpasrilanka.org

Designed by : Janaranga Dewasurendra

Printed by: Binupa Graphics

ISBN 978-955-8876-31-2

All rights reserved - reproduction of any part of the text is authorised, except for commercial purpose, provided the relevant authors and the Family Planning Association of Sri Lanka are acknowledged.

Disclaimer;

The articles in this Volume represent the opinions and views of the individual authors and do not represent the publisher - The Family Planning Association of Sri Lanka - unless the context specifically so defines it.

Sexual and Reproductive Health Research in Sri Lanka; Current Status, Challenges and Directions

Coordination and Conceptualization

Mr. Duminda Rajakaruna - Assistant Director (M&E)

Technical Support

Mr. Amal Bandara - Assistant Director (M&E)

Mr. Janaranga Dewasurendra - Senior Manager (M&E)

Mr. Sanjeewa Chandrasekara - Assistant M&E Officer

Mr. Thivanka De Silva - MIS Officer

Mr. Kasun Nishantha - MIS Officer

Mr. Venura Deshan - MIS Assistant

Language Editor

Ms. Natasha De Rosayro - Communication Officer, FPA Sri Lanka

Reviewed and Approved by

Ms. Thushara Agus - Executive Director, FPA Sri Lanka

Message from the Executive Director



It is with pleasure we present this compilation of Research on **Sexual and Reproductive Health in Sri Lanka** to inform you on key related areas. Being a dynamic and ever changing sphere of health activity, Sexual and Reproductive Health and Rights situation of each country needs periodical reviews and assessments to update available data. Due to the sensitive nature of topics involved and the legal situation of our country, findings of both qualitative and quantitative research will not reach the masses adequately. Fortunately there are many interested professionals in the arena of SRHR, who have conducted and published pertinent research studies that are beneficial to all stakeholders.

FPA Sri Lanka as the premier non-governmental organization working in Sexual and Reproductive Health and Rights considers management of strategic data, as one of its key duties. To this end, our Monitoring and Evaluation division constantly collects, collates and disseminates related data to inform in- country SRHR programmes from design to implementation stages. In these endeavors we sometimes develop partnerships with the government **i.e. data management of HIV prevention programs**, but also conduct and facilitate independent researches to the benefit of all our partners.

What we present to you, is a collection of research studies carried out by eminent professionals on multiple components within the spectrum of Sexual and Reproductive Health. The researchers come from many disciplines as Demography, Obstetrics and Gynaecology, Community Medicine, Psychiatry, Venereology and Program Monitoring units. The published studies were conducted entirely on their own and our intent is solely to disseminate useful findings among our stakeholders and interested parties. I wish to convey my deep gratitude to the researchers for permitting us to publish their findings.

FPA Sri Lanka with sixty six years of operational history, reiterated its commitment to ensuring Sexual and Reproductive Health and Rights to all in its recent Strategic plan effective 2016 – 22. It is my sincere wish that this publication will help convey findings and facts that are **useful and relevant in designing future SRHR programmes of the country.**

Thushara Agus
Executive Director
The Family Planning Association of Sri Lanka

Message from IPPF South Asia Regional Office

The publication 'Sexual and Reproductive Health Research in Sri Lanka: Current Status, Challenges and Direction' by Family Planning Association of Sri Lanka comes at an opportune time.



This year marks the 25th anniversary of the ICPD – a milestone in the history of sexual and reproductive health and rights. While the world congregates in Nairobi analysing the misses and gains, it is worthwhile for countries in the South Asia region to reflect inwards on what has been achieved and what more needs to be done.

This publication with its focus on Sri Lanka published by FPASL supports that reflection by compiling research studies; delving deeper into the wide spectrum of sexual and reproductive health. It highlights the shifting nature of this field and the complexity of issues involved, while at the same time providing useful insights on current service needs or gaps so that programme planners can formulate tailored interventions that meet the needs of the diverse groups it addresses. It demonstrates that sexual and reproductive health requires an intersectional lens as it intertwines closely with gender, ethnicity, religion and sexuality.

The focus on data and evidence is particularly useful as it helps fill a void besides giving a much-needed fillip to evidence-based programming and service delivery. I congratulate the Monitoring and Evaluation Unit of FPASL for this evidence-based report.

The publication is useful not only for FPA Sri Lanka but for all other IPPF Member Associations in the South Asia Region.

Dr. Ataur Rahman
Regional Director (Acting)
South Asia Regional Office
International Planned Parenthood Federation (IPPF)

Contents

Message from the Executive Director	iv
Message from IPPF South Asia Regional Office	v
Preface	viii
Section 01	
1. Shifting of Abortion Practice in Sri Lanka <i>Emeritus Professor W. Indralal De Silva</i>	03
2. Family Planning in Sri Lanka <i>Dr. Sanjeewa S. P. Godakandage</i>	09
3. Sexual and Gender Based Violence <i>Dr. Lakshmen Senanayake</i>	13
4. Youth Sexual and Reproductive Health Research in Sri Lanka; Current Status, Challenges and Future Direction <i>Mr. M. Suchira Suranga</i>	19
5. Glimpse of Sexual Health Services and Research Needs in Sri Lanka <i>Dr. Kapila Ranasinghe and Dr. Gayani Siriwardena</i>	35
6. Unbalanced Sex Ratio and its Impact on Sexual and Reproductive Health Issues Evidence from War-affected Northern and Eastern Provinces of Sri Lanka <i>Emeritus Professor Kalinga Tudor Silva</i>	40
7. Sexually Transmitted Infections and HIV in Sri Lanka <i>Dr. Ajith Karawita</i>	48
Section 02	
1. Technology (ICT) by Sri Lankans to gather information on Sexual and reproductive Health (SRH)	54
2. Process, Determinants and Impact of Unsafe Abortions in Sri Lanka	55
3. The Use of Emergency Contraception Pill (ECP) among Callers to the HappyLife (HL) Contact Centre, FPA Sri Lanka.	56
4. HIV risk behaviours and factors affecting the use of condoms among men who have sex with men (MSM) in selected districts of Sri Lanka; A baseline cross sectional survey	57
5. Knowledge and associated factors of condom use among MSM; a cross sectional study in Global Fund peer led interventions in Sri Lanka	58
6. Effectiveness of counselling to improve psychological well-being of the survivors of gender based violence: a clinic based study in Sri Lanka	59
7. Development and Pilot Testing of an Onsite Data Verification Tool for Peer Education Programmes for Men who have Sex with Men in Sri Lanka	60
8. Application of M&E System Strengthening Tool (MESST) to assess the M&E systems for HIV prevention and treatment programme in Sri Lanka	61
9. A Descriptive Study of Cervical Cytology Smears: A Clinic Based Study	62
10. Young People's Awareness on Induced Abortion and Abortion Law: A Community Based Study in Colombo City of Sri Lanka	63

11. Use of Information Communication Tools (ICT) to provide Sexual & Reproductive Health (SRH) information and counselling to the Most at Risk Populations (MARP) for HIV in Sri Lanka	64
12. Sexual & Reproductive Health (SRH) information and counselling to youth via information Communication Tools (ICT)	65
13. Perceptions on the abortion laws in Sri Lanka - A community based study in the city of Colombo	66
14. HIV risk behaviours among youth female sex workers in selected districts of Sri Lanka; a baseline cross sectional study	67
15. Factors Associated with Attitudes on Induced Abortion - A Community Based Study among Adults in Colombo City of Sri Lanka	68
16. Factors associated with clinic escorts in peer-led HIV prevention interventions for who have sex with men (MSM) in Sri Lanka	69
17. An Assessment of Knowledge and Attitudes Regarding Induced Abortions among Clients Attending Clinics of The Family Planning Association of Sri Lanka	70
18. Time taken to escort men who have sex with men (MSM) for HIV testing in the peer group interventions in Sri Lanka	72
19. Limited resources and challenging targets? Contributing to Sustainable Development Goals through continuous monitoring of program efficiencies	73
20. Gender differences in knowledge and attitudes concerning induced abortion in Sri Lanka: a community based study in the Colombo City	74
21. Access to information and attitudes towards induced abortion: a community-based study among adults in the City of Colombo, Sri Lanka	75
22. Acceptability of Oral-fluid rapid HIV 1 and 2 antibody test among selected key populations in Sri Lanka	76
23. The Branch Performance Tool; A methodological approach for continuous monitoring of program efficiencies of service delivery interventions	77
24. Service provider perceptions of the trend in servery of symptoms and complications in women admitted following an incomplete abortion	78
25. Modeling Time Taken to HIV Testing and Follow-up Clinic Visits to Collect the Test Results; Multivariate Survival Analysis with Multiple Ordered Events	79

Preface

The Sri Lanka Family Planning Association is the premier institution providing Sexual and Reproductive Health services to the people of Sri Lanka, for over six decades. Knowledge gained by being engaged in research and development activities produces quality service provision by the Association as well as being a knowledge source for the country.

This publication marks a significant milestone for FPA Sri Lanka, a prominent member of The International Planned Parenthood Federation (IPPF) in the South Asia Region as it has been an institutional long term objective.

Thus, “Sexual and Reproductive Research in Sri Lanka, Current Status, Challenges and Direction” includes selected landmark abstracts presented and published by FPA Sri Lanka in national and international journals and conferences for the period 2010-2019.

Furthermore, this publication comprises review articles by proficient authors with competence and experience in multifarious subjects, such as, Sexual and Reproductive Health, Demography, Sociology, etc. This fact ameliorates the relevancy of this publication which furnishes sound knowledge to the country.

The International Conference on Population and Development (ICPD) celebrated its 25th anniversary this year and this publication is a retrospect to the important objectives of the ICPD. Moreover, this can be enumerated as a profound analysis of the current status of Sexual and Reproductive Health in Sri Lanka by contemplating its challenges and future directions.

Editorial Board

Section 01

This section features a collection of country specific research studies carried out by experts in the fields of demography, community medicine, obstetrics and gynaecology, psychiatry and venereology, all subjects within the wider scope of sexual and reproductive health.

Shifting of Abortion Practice in Sri Lanka

Family Planning in Sri Lanka

Sexual and Gender Based Violence

Youth Sexual and Reproductive Health Research in Sri Lanka: Current Status, Challenges and Future Direction

Glimpse of Sexual Health Services and Research Needs in Sri Lanka

Unbalanced Sex Ratio and its Impact on Sexual and Reproductive Health Issues: Evidence from War-affected Northern and Eastern Provinces of Sri Lanka

Sexually Transmitted Infections and HIV in Sri Lanka

Shifting of Abortion Practice in Sri Lanka

W. Indralal De Silva



Indralal De Silva is currently serving as the Director, Regional Centre for Strategic Studies, Colombo, Sri Lanka. He is the former Chair Professor of Demography and former Dean of the Faculty of Arts, University of Colombo. He also served as a Senior Research Fellow, National Centre for Advanced Studies in Humanities and Social Sciences (NCAS), UGC, Sri Lanka. He has published a number of books, monographs, presented over 100 research papers in many international and local conferences and has published over 80 research articles in reputed international journals (record of Google Scholar Citations - close to 1000). He functioned as the Chair of Annual Research Symposiums of the NCAS in 2014, 2015, 2016, 2018 and made contributions as Keynote Speaker at many academic and non-academic events. He has also delivered lectures on various postgraduate programmes in different disciplines and particularly Demography and research methodology modules to candidates of PhD,

MPhil, MD, MSc, MA Programs in many local and international Institutions. Professor De Silva has a Bachelor's Degree in Development Studies (Statistics) from University of Colombo in 1977 and a Diploma in Population Studies from the International Institute of Population Sciences, Mumbai, India. He obtained Master's and Doctoral Degrees from Australian National University, Canberra in 1985 and 1990 respectively. He was a Research Fellow at the National University of Singapore in 2004, Harvard School of Public Health during 1996-1998 and a Postdoctoral Fellow at the Australian National University from 1990-1991. He has obtained a number of prestigious awards including Senior Fulbright, Takemi and Rockefeller Foundation Fellowships. He has acted in the capacity of a consultant to World Bank and umbrella organizations of the United Nations such as ESCAP, WHO, UNFPA and so on.

Introduction

Induced abortion has been practiced in one form or another from the beginning of human society. During the recent past, the practice of induced abortion appears to have increased significantly in many countries in the world. Estimates indicate that approximately 40-50 million induced abortions take place throughout the world annually. Although decriminalization of abortion is a feature of an evolving legal system in many parts of the world, the law still restricts induced abortion in many third world countries (Rahman et al., 1998; WHO 2003). In some countries, it is legal with no conditions, whereas in others it is allowed only under very strict and justifiable conditions (De Silva et al., 2006). However, still a large proportion of women in many developing countries, who rely on abortion services, do not have access to safe abortion techniques.

In Sri Lanka, legislation allows the termination of pregnancy only to save the life of the mother (article 303 of the penal code of 1883). Medical termination of pregnancy (MTP) is hardly performed in contemporary Sri Lanka; thus almost all the induced abortions that take place in the country are technically illegal. Even though it is illegal, many women in Sri Lanka who have unwanted pregnancies use induced abortion to prevent birth. Estimates indicate

that about 150,000-150,000 abortions take place annually in Sri Lanka compared to about 340,000 live births per annum (De Silva, 1996; Rajapakse & De Silva, 2000).

Objective of the Study

The general objective of this study is to obtain an understanding of the change in the abortion practice in Sri Lanka, particularly the past, present and possible future trends.

Abortion Practice in the Past

Most couples in Sri Lanka were aware of both modern and traditional methods of abortion and probably could obtain it if they desired. Until the latter part of the last century abortifacient fruits, herbs and plants were among the most widely used for inducing an abortion. Compared with various procedures adopted for abortion in the 1980s and early part of 1990s, a sizable proportion depended on traditional methods and providers. However, since the mid-1990s, abortion procedures became simple and largely medicalized.

Dilation and evacuation (D&E) was a popular procedure used by the private clinics in the 1990s, but later a large number of clinics started to use manual vacuum aspiration (MVA) and electric vacuum aspiration (EVA). A study by Talagala (2010a) reports that about 92 percent of a total of 665 respondents who

have undergone an abortion indicated that their abortions were carried out following either dilatation and evacuation (56 per cent) or vacuum extraction (36 percent).

Since the early 1980s, a particular non-governmental organization (NGO) dedicated to quality client oriented reproductive health services, began providing safe abortion services clandestinely in Sri Lanka through its family planning clinics. Although abortion is legally restricted it was provided by various institutions and individuals in many parts of the country until mid-2007. Despite the highly restricted abortion law, indictments for criminal abortion hardly occur and offenders are rarely persecuted for the abortion crime.

However from mid-2007, the Sri Lankan Government launched a well-coordinated drive to bring a halt to abortion services being provided in the country by the NGO and other private facilities. As of early 2008, over 60 abortion centers and facilities operating throughout the country including those run by this NGO were raided by the authorities and convictions were made. Because of the raids, many facilities providing safe abortion services suspended their activities throughout the country.

Prior to the government crackdown of the abortion providing centers, various institutions and individuals provided the service at a nominal fee. The abortion fee charged by NGO operated clinics was affordable (Rs 2000 to 4500 approximately US dollars 15 to 30) when compared to the fee charged by private abortion practitioners. Abortion charges of the private clinics depended on if the woman was given pain killers or not. It is, therefore, obvious that women were denied access to a safe and low cost abortion service when the government began to crack down on abortion clinics run by the NGO and other private clinics.

The medical professionals' opinions regarding the possible implications of closing down

the abortion clinics in Sri Lanka were sought by De Silva (unpublished) few months after the closure. Almost all of them believed that the action of the government will not help prevent abortions in Sri Lanka but would contribute to negative reproductive health outcomes (women will jeopardize their lives) because of the compulsion among women to depend on unskilled providers to carry out the procedure in secret. According to one senior government medical practitioner, even after the closure of known centers, between 500 and 700 abortions are carried out each day in Sri Lanka by private doctors, unqualified medical personnel, paramedics, and quacks. The bulk of the "business" is done by quacks, followed by the private doctors (in their private clinics). As reported by a number of medical experts, complications of unsafe abortions such as multiple perforations and genital injury (caused by unsafe procedures through quacks) have gone up in the country's apex maternity hospital when compared to the past few years. (De Silva, unpublished).

Prior to the crackdown, the bulk of the women sought abortion services from safe abortion clinics in their first trimester – an overwhelming large proportion even before ten weeks of gestation (De Silva and others, 2006; Ben and others, 2004). Knowing that maternal mortality and morbidity due to septic abortion was very high, majority of women sought abortion as early as possible in order to avoid complications. Also a majority sought safe procedures and the fee was affordable. Word of mouth information was heavily used by women to identify safe procedures and providers. It is important to note that in Sri Lanka, the complications of illegal abortions are less compared to other countries and by studying this environment De Silva (1997; 2015) in his publications proposed the phrase – 'safe abortions in an illegal context'. However, as De Silva (unpublished) indicated, with the closure of the private clinics, which provided reasonably safe MR facility for clients, some of the clients would have resorted to backstreet

(septic) abortions. This trend would have created a new disease burden, particularly during the first few years after the closure of well-established abortion centers.

Abortion Practice at Present

A number of questions could be raised related to abortion practice, in contemporary Sri Lanka. What happened to the abortion practice in Sri Lanka after 2007? What options do women have for an abortion? and What would the future scenario be? The latest 2016 DHS indicates a decline in the contraceptive prevalence rate to 64.8 percent among the currently married women of 15-49 years of age compared to the corresponding value of 70 percent in the 2006-07 DHS.

Although in Sri Lanka the average intended family size is two children, much more than two conceptions take place among each woman on average (De Silva, 2016). Thus in this environment, unintended pregnancies tend to occur in large scale. Once the contraceptive prevalence has declined and abortion centers have been closed down, what particular options are available for the sexually active females of reproductive age to avoid conception or for the removal of an unwanted pregnancy?

However, in the present environment, centers that provide abortion services hardly operate in the country. In the past, 'word-of-mouth' information was the main source for women to identify relatively safe and affordable abortion centers for termination of their unwanted pregnancies. In very restrictive locations, a termination could be obtained for a higher fee ranging Rs. 40,000-60,000, one would assume that the demand for such type of service is negligible.

Then the question arises 'What is the most popular method of induced abortion practiced by women currently in Sri Lanka?' The answer is medical abortion. What is medical abortion and to what extent do women in Sri Lanka have access to medical abortion?

Although there are various pharmaceutical products available, a combination of an anti-progesterone drug 200mg of Mifepristone and a prostaglandins derivative, 200mg of Misoprostol, is a powerful drug used in many parts of the world for termination of pregnancy (Gemesell-Danielsson et al., 2016). The procedure is noted to be safe and effective and the success rate in early pregnancy is reported at 95-98 percent. Most studies suggest that it is safe to take in a home environment (WHO, 2016).

Women who intend to terminate their unwanted pregnancies have easy access to Misoprostol and could administer the drug at home. When it is administered in the early stages of pregnancy, the outcome is exceptionally successful. This must be what is exactly happening now in Sri Lanka. Although induced abortion is technically illegal, it is happening at a very private level (De Silva 2015) It is practiced not to save the life of the mother but for a much wider spectrum of reasons.

The other side of the coin is risks associated with using Misoprostol inappropriately for the purpose of termination. Unsolicited use of the drug for termination purposes could result in inappropriate use due to the lack of guidance from both the pharmacy and physician. Since it is an unregistered drug, pharmacy counters will not provide adequate instructions to the clientele. Although an increasing number of women are seeking medical abortions outside of formal /informal private health systems in Sri Lanka, research agendas have yet to address the topic systematically. Medical abortion is likely expanding access to induced abortion, especially in countries where it is legally restricted like in Sri Lanka.

Abortion Practice in the Future

In this environment, should we allow the public to practice medical abortion, using various drugs in an unregulated manner for termination of unwanted pregnancies? Or

should the current abortion law be reformed in Sri Lanka? Decriminalization of abortion at least under specific conditions would benefit women's health and birth of babies with lethal abnormalities.

One of the very reasonable proposed amendments to the Penal Code - allowing women to undergo abortion if the fetus has lethal abnormalities – is very much accepted as a reproductive right of a women. Although pre-natal diagnosis is closely linked to the decision of terminating a pregnancy, the former is pointless if it is not accompanied by the legitimate option of the latter (Simpson and others 2005).

Legal Status and Attempted Amendments

During the course of the last three decades, several attempts were made by the Sri Lankan government with the support of various interested groups to amend the country's rigid abortion law. In 1973, 1995 and 2004, respective governments presented amendments to liberalize the abortion law in the country but all attempts failed – no change to the abortion law of the Penal code of 1883. Therefore, in comparison with most of the countries in Asia, Sri Lanka's abortion law was noted to be rigid and not progressive as many other countries in the world (Ban, 2002). Most of the South Asian countries have liberalized the abortion practice during these past decades– India in 1971, Nepal in 2002 and Bangladesh in 2013.

Conclusion

Although efforts were made repeatedly during the past decades to reform the abortion law in Sri Lanka by various Governments with the support of professional organizations and NGOs, ..all failed. The socio-cultural context in Sri Lanka, with its deeply entrenched patriarchal thinking bound with religious beliefs, shows much resistance to such progress. Thus under

the present Sri Lankan law, induced abortion can be performed only when the woman's life is in danger.

Although the Penal Code of Sri Lanka, which is derived from the 19th Century English Law, had no any successful amendments, the English Law on abortion was relaxed in 1967. Despite rigid statutory provisions, the incidence of abortion in Sri Lanka is believed to be considerably higher than is commonly acknowledged. Although any abortion willfully induced without the specific intent to save the life of the mother constitutes illegal abortion in Sri Lanka, in practice, indictments for criminal abortion rarely occur and convictions are even rarer.

Due to a significant reduction in post abortion complications and availability of other protective mechanisms, this could create a different environment for the abortion issue. Presumably in the future, there will not be any significant attempts to amend the abortion law in Sri Lanka due to a number of reasons. Firstly, although in the past unprotected sex led to unwanted pregnancy and a large proportion of them ended up in abortion, at present, most of such couples gain the protection by using Emergency Contraception – The heavy use of Emergency Contraception has significantly dropped the case load of induced abortion. Secondly, although still a sizable number of unwanted/unexpected pregnancies could be experienced by women, they could easily use medical abortion facilities¹ very privately and effectively. Thirdly, since the practice of septic abortions are very minimum in this environment, maternal deaths and post abortion complications are also at a minimum. Although the repeat use of the above pharmaceuticals could increase some other health issues, the general public will not consider them seriously. Therefore, paradigm shifts being observed in reproduction and

1. Most of the pharmacies are stocked with Misoprostol smuggled in to Sri Lanka from India and number of other countries. Also, the same drug could be purchased from various sites on the internet, As an example "Woman on Web".

particularly in abortion need to be addressed without further delay.
as an essential subject matter for research

References

Abeykoon, A. T. (2012). Estimates of Abortion Rate in Sri Lanka using Bongaarts Model of Proximate Determinants of Fertility. Colombo: The United Nations Population Fund.

Arambepola, C. and Rajapaksa, L.C. (2014). Decision making on unsafe abortions in Sri Lanka: a case-control study, *Reproductive Health*, 11:91. <http://www.reproductive-health-journal.com/content/11/1/91>

Ban, D.J., Kim, J. & De Silva, W.I. (2002). Induced abortion in Sri Lanka: Who goes to providers for pregnancy termination? *Journal of Biosocial Science*, 34:303-315.

Dalvie, S., Barua, A. & De Silva, W.I. (undated). Sri Lanka: A study of knowledge, attitude and understanding of legal professionals about safe abortion as a woman's right, Asia Safe Abortion Partnership.

De Silva, W.I. (2015). Sri Lanka: Paradigm shifts in population, National Center for Advanced Studies in Humanities and Social Sciences, UGC, Colombo

De Silva, W. I. (1997). The Practice of Induced Abortion in Sri Lanka. Research Paper Series No. 137. Boston: Harvard School of Public Health.

De Silva, W. I. (1996). Silent cry: socio-cultural and political factors influencing induced abortion in Sri Lanka, paper presented at the International Union for the Scientific Study in Population seminar on Socio-cultural and Political Aspects of Abortion from an Anthropological Perspective, Trivandrum, India, 25-28 March.

De Silva, W.I., R.A. Dayananda & N.W.P.D.B. N. Perera (2006). Contraceptive behaviour of abortion seekers in Sri Lanka, *Asian Population Studies*, 2(1): 3-18.

Dixon-Muller, R. (1988). Innovation in reproductive health care: menstrual regulation policies and programs in Bangladesh, *Studies in Family Planning*, 19(3): 129-140.

Gemzeii-Danielsson, C., Fiala, C., Agostini, A., Cameron, S., Bombas, T., Lertxundi, R. & Parachini, M. (2016). Medical abortion beyond the 1st trimester including fetal death in utero: A practical guide for health care professionals, Exelgyn.

Rajapakse, L. & De Silva W. I. (2000), Profile of Women Seeking Abortion, Faculty of Medicine, University of Colombo, Colombo.

Senanayake, L., Willatgamuwa, S., Moonesinghe, L., & Tissera, S. (2012). (2012) Unwanted / Unplanned pregnancies and their aftermath. Colombo: The Family Planning Association of Sri Lanka in collaboration with the College of General Practitioners Sri Lanka.

Senanayake, L. Willatgamuwa, S. and Jayasinghe, K. (2008). Reducing the burden of unsafe abortion in Sri Lanka. The Family Planning Association of Sri Lanka, Colombo.

Suranga, M. S., Silva, K. T., & Senanayake, L. (2017). Access to Information and Attitudes towards Induced Abortion . Journal of Colledge of Community Physicians of Sri Lanka, accepted to be published in 2017.

Suranga, M. S., Silva, K. T., & Senanayake, L. (2016). Perception on the abortion laws in Sri Lanka: A community based study in the city of Colombo. Ceylon Medical Journal, 171-175. Retrieved from <http://doi.org/10.4038/cmj.v61i4.8384>

Thalagala, N. (2010a). Process, Determinants and impact of Unsafe Abortions in Sri Lanka, The Family Planning Association of Sri Lanka, Colombo.

Thalagala, N. (2010b). Economic perspectives of unsafe abortions in Sri Lanka, The Family Planning Association of Sri Lanka, Colombo.

World Health Organization (2016). Expanding health worker roles for safe abortion in the first trimester of pregnancy, Geneva, World Health Organization,

World Health Organization (1994). Abortion, Geneva, World Health Organization,

Family Planning in Sri Lanka

Sanjeeva S.P.Godakandage



Sanjeeva S.P.Godakandage is a Board Certified Consultant in Community Medicine (Public Health Medicine) in Sri Lanka. His areas of interest and expertise include infant and young child nutrition, reproductive health and research. He is currently attached to the Family Health Bureau of Ministry of Health, Nutrition and Indigenous Medicine and works as the Technical Focal Point of the National Family Planning Programme of Sri Lanka. He is a visiting lecturer and/or an examiner for Community Medicine, Human Nutrition, Reproductive Health and Family Medicine courses at the Postgraduate Institute of Medicine, University of Colombo. He has work experience in preventive healthcare in both developed and developing country settings and at national, provincial and divisional levels in Sri Lanka. Dr.Godakandage underwent his undergraduate medical training at Faculty of Medicine, University of Ruhuna and read for his Master of Science and Doctor of

Science degrees in Community Medicine at Postgraduate Institute of Medicine, University of Colombo. Thereafter he completed his postdoctoral training attached to National Health Service, UK in London. He obtained a postgraduate Certificate in Nutritional Medicine from University of Surrey in 2012. He has publications in a number of international and national peer-reviewed journals, made presentations at international, regional and national conferences and reviewed international and national level conference abstracts and journal articles. He has received the President's Award for Scientific Publications, National Research Council Merit Award for Scientific Publications, and was a recipient of the Australian Leadership Award Fellowship and Australia Awards Fellowship.

According to the World Health Organization (WHO), family planning refers to allowing individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births. It is achieved through use of contraceptive methods and treatment of involuntary subfertility (WHO, 2018). It has been identified as one of the most cost effective interventions known to mankind and ranked ahead of all other health sector interventions (United Nations Children's Fund, 1992; Copenhagen Consensus Centre, 2015). Family planning has numerous advantages well beyond the health sector and encompasses environmental, socio-economic sectors etc. It is a cross cutting issue that has been identified as an indirect requirement to achieve all 17 Sustainable Development Goals (SDGs) and include targets coming under SDGs 3 & 5 (Starbird et al., 2016).

The health benefits of family planning for the mother as well as for children have been well established. Although our maternal mortality ratio is relatively low, still 1/3 of preventable maternal deaths could be averted through proper family planning practices. A priority challenge for the Sri Lankan health sector is the stagnant adolescent fertility rate during the last few decades (Department of Census and Statistics, 2017). The consequences of adolescent pregnancies include complications

such as eclampsia, puerperal endometritis and systemic infections for the mother, and low birth weight, preterm deliveries and severe neonatal conditions for the offspring (WHO, 2018; Azevedo et al, 2015). On the other hand, pregnancies after the age of 35 years also pose a risk to both the mother and offspring. Such complications include increased risk for miscarriages, high blood pressure, delivery complications and death for the mother, and congenital abnormalities and other morbidities and mortality for the neonate (National Health Service, 2009).

An important aspect of family planning that has started receiving enhanced focus in Sri Lanka is healthy spacing between pregnancies. Compared to a gap of 3-5 years between two births, a shorter interval poses a higher risk for prematurity, low birth weight, small for gestational age and foetal and neonatal deaths (Grundy and Kravdal, 2014). Although grand-multiparity, i.e. 5th and subsequent pregnancies are becoming less common in Sri Lanka, it is still seen in certain subcultures. Poor health seeking behaviors observed in such subcultures further aggravate the adverse consequences such as increased risk of anemia, postpartum haemorrhage, uterine relaxation and rupture and cardiovascular diseases for the mother and low Apgar score and other risks for the neonate (Lean et al, 2017).

Although accurate statistics are not available, the available evidence suggests a high induced abortion rate in Sri Lanka. Taking into consideration the adverse consequences of induced abortions, this is an area that can be easily improved through proper family planning practices, as nearly all of these are outcomes of unwanted pregnancies.

The other dimension of family planning is subfertility management. Although accurate statistics are not available, according to the available evidence, approximately 15% of couples in Sri Lanka suffer from subfertility (Lansakara, 2006). Due to cultural reasons, there is severe stigma attached to childlessness and often it is seen as a fault of the woman. This can lead to psychological distress, social isolation, and marital disharmony etc. The high cost of advanced fertility treatment may result in catastrophic expenditures for the vast majority (Aluthwalage, 2011; Sahar et al, 2017).

According to the above facts, it is obvious that family planning services are of extreme importance to Sri Lanka. Way back in the 1930's this was recognized, and Dr. Mary Ratnam introduced modern methods of family planning to Sri Lanka. However, this did not sustain due to the Second World War, and current services were initiated by the Family Planning Association of Sri Lanka in 1953. The Government of Sri Lanka accepted family planning as a national policy and undertook service provision in 1965 integrated with maternal and child health services. The Family Planning Bureau was established, which later became the Family Health Bureau in charge of all maternal and child health activities. This integration of family planning into maternal and child health services right from the beginning immensely contributed to the success of this programme. At the beginning, the programme had both demographic and health objectives, but later on, especially after the International Conference on Population and Development in 1994, the focus shifted towards health and

human rights objectives.

At present the Sri Lankan programme is considered as one of the best established programmes in the region. The health services cover the entire island ensuring accessibility to family planning services for a client living in any part of the country. Public Health Midwives provide domiciliary healthcare services to her designated population, which include family planning services as well. The family planning services provided by them include counseling, follow up, provision of oral contraceptive pills and condoms and referrals to clinic and institutional services. Majority of clinics are based in the field, and the norm is to have one family planning clinic per 10,000 population. In addition, all the hospitals providing maternity care are expected to have family planning clinics.

Apart from the above mentioned service delivery structure in the government sector, private hospitals, pharmacies and full time and part time general practitioners also deliver services. Civil society organizations are also key stakeholders with family planning clinics and volunteers providing services.

In the backdrop of the above mentioned widespread family planning service delivery structures which ensure high accessibility, Sri Lanka enjoys a leading place with regard to family planning indicators. In Sri Lanka, 74.2% of women with a need for family planning have their need satisfied by modern family planning methods. The percentage of eligible couples using any family planning method or a modern family planning method are 64.6% and 53.6% respectively. The unmet need for family planning is at a low figure of 7.5% (Department of Census and Statistics, 2017). Although these figures look impressive, they have been stagnant in the last few decades.

In order to further improve the family planning programme, there are certain gaps and challenges that need to be addressed.

Although the government sector has a wide coverage, accessibility can be further improved by strengthening the private sector. At present, the private healthcare sector is expanding at a rapid rate and strengthening family planning services through it can specially benefit groups such as working women, females in extremes of reproductive age span, widows and single women who are sexually active and certain social strata.

Currently the concept of family planning is shrouded with misconceptions, and sometimes family planning services are viewed with suspicion. This has arisen due to ignorance about the objectives and outcomes and impact of family planning. If this negative social

perception is not rectified, it can have adverse effects not only on the health status, but also on overall social wellbeing.

With respect to the other dimension of family planning, i.e. subfertility, a large amount of myths can be observed in the society. This further aggravates the negative outcomes of subfertility highlighted above, and needs an effective health sector intervention. Advanced subfertility management options are available in the private sector in urban areas, and initial steps have been taken to establish them in the government sector. High cost of subfertility management options remains a challenge for many countries.

References

Aluthwalage, R.L. (2011). Psychological distress, socioeconomic and family problems experienced by subfertile women attending subfertile clinic at Castle Street Hospital for Women. MSc Thesis, Postgraduate Institute of Medicine, University of Colombo, Colombo.

Azevedo, W.F., Diniz, M.B., Fonseca, E.S.V.B., Azevedo, L.M.R. & Evangelista, C.B. (2015). Complications in adolescent pregnancy: systematic review of the literature. 13(4):618-26.

Copenhagen Consensus Centre (2015). The economics of optimism. The Economist.

Department of Census and Statistics (2017). Sri Lanka Demographic and Health Survey 2016. Colombo.

Grundy, E. & Kravdal, (2014) Do short birth intervals have long term implications for parental health? Results from analyses of complete cohort Norwegian register data. Journal of epidemiology and Community Health, 68 (10). pp. 958-64. ISSN 0143-005X DOI: <https://doi.org/10.1136/jech-2014-204191>.

Lansakara, N. (2006). Psychological aspects of infertility, among currently married females in reproductive age and the service needs of fertility impaired couples in district of Colombo. MD Thesis, Postgraduate Institute of Medicine, University of Colombo, Colombo.

Lean, S. C., Derricott, H., Jones, R. L., & Heazell, A. (2017). Advanced maternal age and adverse pregnancy outcomes: A systematic review and meta-analysis. PloS One, 12(10), e0186287. doi:10.1371/journal.pone.0186287.

National Health Service (2009). [ONLINE] Available at: <https://www.nhs.uk/news/pregnancy-and-child/pregnancy-warning-for-older-women>. [Last Accessed 8/4/2017].

Sahar, M. Y., Mona, T. & Elham M. F., (2017). Emotional problems of Infertile Egyptian women.

Journal of Nursing Education and Practice. 7(1), pp. 146-156.

Starbird, E., Norton, M. & Marcus, R. (2016). Investing in Family Planning: Key to Achieving the Sustainable Development Goals. *Global Health: Science and Practice*. doi: 10.9745/GHSP-D-15-00374.

United Nations Children's Fund (1992). Annual Report. UNICEF.

World Health Organization (2018). [ONLINE] Available at: <http://www.who.int/mediacentre/factsheets/fs351/en/>. [Last Accessed 11/04/2019].

Sexual and Gender Based Violence

Lakshmen Senanayake



Dr. Lakshmen Senanayake FRCOG(UK), FSLCOG, MA (Kelaniya) is a senior Obstetrician and Gynecologist who retired after serving 30 years in state hospitals and is presently working as the Consultant, Hospital Efficiency and Quality in the Health Sector Development Project of the Ministry of Health, He also serves the UNFPA as a technical adviser in programs addressing GBV in the Health Sector. He is a member of the Medical Committee of The Family Planning Association Sri Lanka and is the Sri Lanka focal point for the FIGO/IPPF initiative on Unsafe Abortion and was the co-author of the publication Reducing the burden of unsafe abortion in Sri Lanka and contributor to the publication Prevention of Unsafe Abortion in Asia Oceania Region. He served in the editorial board and was a contributor to the National Report on Violence and Health in Sri Lanka published by Ministry of Health and WHO. He is also a contributor to the Shadow CEDAW report 2009. He is currently serving

in the National Committee on Women and the National Committee on Prevention of Violence and is a member of the GBV Forum and has been a Past President of the Sri Lanka College of Obstetricians and Gynecologists.

Introduction

Gender-based Violence (GBV) is an umbrella term used to describe a wide array of harmful and degrading acts directed against a person, because of her/his gender, and is deeply entrenched in gender discrimination and inequality, that exists in society. It denies the human dignity of the individual, hurts human development and is largely rooted in societal and individual attitudes related to gender, that condone violence within the family, community and the State. (1) GBV continues to be a notable violation of human rights and affects both women and men. It is widely acknowledged that GBV is mostly inflicted on women and girls, by men and boys (2).

Gender-based Violence and Violence Against Women (VAW) are terms that are often used interchangeably but GBV clearly indicates that gender is the basis for perpetration. The modality of executing violence could be physical, emotional, sexual, and economic or social (controlled behaviors). The term Sexual and Gender-based Violence (SGBV) is used to emphasize the most demeaning and repulsive component of GBV: Sexual violence.

GBV includes an assortment of categories such as: Domestic Violence/Intimate Partner Violence (DV/IPV), Female Genital Mutilation/Cutting (FGM/FGC), rape, sexual violence at work place or in public spaces, cyber violence, sexual abuse and trafficking of women and

girls.

Domestic Violence/Intimate Partner Violence (DV/IPV) is one of the common forms of GBV, affecting almost one third (30%) of women, who have been in a relationship, in some form of violence: physical and/or sexual, by their intimate partner sometime in their lifetime (3). Istanbul Convention(2011) defines (DV/IPV) in broad terms: “domestic violence shall mean all acts of physical, sexual, psychological or economic violence that occur within the family or domestic unit or between former or current spouses or partners, whether or not the perpetrator shares or has shared the same residence with the victim” (4). The Prevention of Domestic Violence Act 2005 (PDVA2005) (5) takes up still a wider position, to include individuals such as a father or mother within a domestic relationship. On the other hand, Sustainable Development Goal Indicator 5.2.1, describes Intimate Partner Violence as “the proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age” (6).

GBV is a vast subject area with multiple definitions, often overlapping (as seen above) and developed to suit the specific dimensions and requirements, makes conducting research and analysis of findings a complicated task. More so, makes comparison of research and

drawing justifiable conclusions very difficult.

Current Status

One of the early research done, if not the earliest was in 1991, which recorded a prevalence rate of 54% in urban and 72% in rural locations. The author herself commented on the high prevalence rates and iterated the need for further research (7). Since then, many studies have been conducted on GBV in Sri Lanka, most of which have produced analysis mostly at micro or meso level. The only study so far, in Sri Lanka which can be considered as a macro level research would be the Demographic and Health Survey of 2016 (8) but this too had a very limited scope.

Most studies have focused on prevalence of GBV or on one of its specific categories. Some have looked at the life time prevalence: number of women who has been victimized by an intimate partner at some point during their lifetime (9), others on prevalence during the 12 months preceding the inquiry (8). Only few have done both (10), (11), (12).

The Demographic and Health Survey (DHS) 2016, for the first time in Sri Lanka included four questions directly related to domestic/intimate partner violence including prevalence during the last 12 months and care seeking behaviour. Among the ever-married women of 15-49 years of age, 17 percent indicated that they have suffered violence from their intimate partner during the 12 months preceding the survey. Only marginal differences were observed when the urban rural divide was considered, with urban prevalence of 19.8% and rural 16% (8).

However, a marked discrepancy in prevalence was seen between the provinces: Batticaloa (49.6%) and Kilinochichi (49.6%) with nearly half of the women affected by violence from their intimate partners. In contrast, Hambanthota (5.7%), Anuradhapura (7.4%) and Monaragala(7.4%) had very low rates. (13) These findings compared favorably with some

of the other research but they were conducted among specific sub groups or locations. A study of women (n.824) from the Central Province found a prevalence of “current “violence” of 18% (12). A study among pregnant women (n=2088) comparing the capital city and the tea plantation sector found the prevalence of ‘currently abused’ as 15.9% (11) A study among pregnant women (n.1200) in the Badulla district found a rate of 18.7% in the “current pregnancy” (14)

Lifetime prevalence has been studied only in small studies among selected populations. A survey at the out-patient department of the North Colombo Teaching Hospital found that 40.7% of women had been abused by their partners. (10). A study of a representative sample (n.624) of “wives” in Central Province examined the prevalence of physical, psychological, and sexual abuse found that, 36% had experienced at least one episode of abuse by their husbands (12)

A UN multi country study,(2013) conducted in nine countries found that prevalence of IPV of 39.7% was which the lowest among the nine countries/sites studied: the highest being in Papua New Guinea (87.3%) (15).

A scoping review published recently reported a prevalence of IPV in Sri Lanka ranging from 20-72%, with recent reports ranging from 25-35%. Authors pointed out that most research about IPV has been conducted in a few provinces mostly based on the experience of legally married women (16).

A sector that recorded a high prevalence in most studies (exception DHS2016) was the plantation sector. The prevalence of abuse was significantly higher ($P<0.001$): “ever abused’ Capital City (31.5%) compared to Plantations (50.8%) and ‘currently abused’ Capital (10%) compared to Plantations(25.8%) respectively (11).

Some studies have looked at the manner

in which violence was inflicted. The most predominant type of violence identified was emotional violence “belittled or seriously offended you” (75.3%) in the DHS 2016 (8) . In a study among university students, 57.2% reported that they knew of instances of verbal abuse (17). Prevalence of physical violence among the survivors ranged from 16.3% (15) to 34% in a community based study in the Western Province (18). Sexual violence was divulged by only 9.5% (15) to 19% (19) of the respondents. Economic violence was mentioned only in a few studies and ranged from 6.8% (15) to 15% (20).

However, the significance of identifying severe and life threatening forms of violence described as :“Tried to strangulate”(13.3%),“beaten with an object“ (13%) and “burnt” (03%) in the DHS 2016, cannot be overemphasized.

Few of the studies attempted to identify risk and protective factors. Women who marry at an early age, women with a higher number of children, women living with their extended families, especially with in-laws, women with a low level of social skills (21) and if they had partners who abused alcohol/drugs or had extra-marital affairs (22) were found to be at a higher risk. Some protective factors such as educational status and the economic stability of the women were noted in the findings of the DHS 2016 (8).

Gaps and Challenges

One of the very few studies targeting an intervention was on counselling of survivors identified at screening (n.81) of patients attending a family planning clinic, with a short term follow up and commenting on its effectiveness (23).

Hardly any research has been conducted on harmful traditional practices such as Female Genital Mutilation/Cutting or proving virginity. In spite of much information being available in grey literature and news media, only one article addressed the issue of FGM which appears to

be hidden but happening (24) .

Research on economic impact and the cost to the individuals, families and the country at large, is notably lacking. Only one study recorded that 16% of women who experienced intimate partner violence had to take days off work (9) .

Thus, significant gaps exist in research conducted on GBV in Sri Lanka, especially at macro level. National studies designed to identify prevalence rates, consequences, risk and protective factors, to generate evidence that would help to plan preventive and response interventions are essential.

As the subject is sensitive and treated with much bias and impunity, it is understandable there are many challenges for the researchers.

Research on GBV raises important ethical and methodological challenges, beyond those posed by any other research. This was commented by WHO; “It is not an exaggeration to say that the physical safety and psychological well-being of both the respondents and the research team can be put in jeopardy if adequate precautions are not taken.” (25)

Safety of the respondents and researchers is an important facet when conducting research into GBV. DV/IPV is an exceptional circumstance where the survivor lives with the perpetrator and is in a vulnerable position at her own home. Therefore, it is important to ensure that our need to collect information should not jeopardize the safety of her and her children. There are number of ethical principles that need to be ensured when conducting research on GBV such as: guarantee confidentiality and safety, the research should not cause further harm to any participant, ensure that the participant is informed of available sources of help, and the need for the interviewers to respect an interviewee’s decision and choice.

Lack of, and non-use of standardized definitions,

terms and measurement tools, that are used in research make the findings less valuable as they cannot be compared or used for national level reporting.

Researchers on GBV are often concerned that “being a sensitive subject, survivors will have a negative attitude” and are reluctant to participate. Of the 16,629 women who were interviewed in the DHS(2016) only 2% refused to answer the questions (8). This should give future researchers confidence to pursue the subject, which is often considered a “precarious” area. It is known that some women “unburden” themselves when inquired about the violence which itself is relieving.

Future Directions

Research gaps identified need to be addressed at national level through research with combined methodologies: Quantitative and Qualitative in order to discover common and uncommon or hidden areas of GBV.

There are important and so far untouched areas such as economic burden of GBV, Harmful Traditional Practices, Cyber Violence and impact evaluations of what has been done so far that should draw the attention of the researchers.

Bibliography

UNHCR. Sexual and Gender based Violence. s.l. : UNHCR, 2018. <https://www.unhcr.org/sexual-and-gender-based-violence.html>.

Ministry of Women and Child Affairs Sri Lanka. Policy Framework and National Plan of Action to address Sexual and Gender-based Violence in Sri Lanka. s.l. : MWCA/UNFPA file:///C:/Users/Lakshman/Downloads/Policy%2520Framework%2520and%2520National%2520Plan%2520of%2520Action%2520to%2520address%2520SGBV%2520in%2520Sri-%2520Lanka%25202016-2020%2520English%2520Web_CC.pdf, 2016.

WHO. Fact Sheet. s.l. : WHO, 2018. <https://www.who.int/news-room/fact-sheets/detail/violence-against-women> .

European Council. Council of Europe Convention on preventing and combating violence against

All research must ensure safety of all concerned through adhering to ethical principles through: Ethical clearance, Individual consent mechanism, guaranteeing voluntary participation, ensuring confidentiality at all points of the research, and taking all measures not to endanger the physical safety of informants and researchers. Special measures must be taken to protect the confidentiality particularly with perpetration disclosures. .

Mechanisms to attend to researchers’ and fieldworkers’ emotional needs, requires to be a part of the research plan. Any research on GBV should integrate plans to provide access to/ referrals to support services for survivors identified during the research.

Conclusion

GBV is a subject where research is much needed to understand the local contexts of a complex problem, to provide evidence to facilitate “unlearning” of many myths and misconceptions related to GBV and its causes. The research will help the policy makers and planners to be convinced of the magnitude and significance of GBV as a national tragedy and develop strategies to prevent GBV and assist the survivors .

women and domestic violence. s.l. : European Council, 2011. <https://rm.coe.int/168046031c>.
PREVENTION OF DOMESTIC VIOLENCE Act No34. Sri Lanka : s.n., 2005. http://www.childprotection.gov.lk/Child_Related_ACTs/Prevention%20of%20Domestic%20Violence%20Act,%20No.%2034%20of%202005.pdf.

SDG Tracker. Achieve gender equality and empower all women and girls Goal 5. <https://sdg-tracker.org/gender-equality>.

Samarasinghe, G. Report on some observations on the incidence of domestic violence in four locations in Sri Lanka and the attitudes of women towards violence. Colombo : Women In Need, 1991.

Department of Census and Statistics, Ministry of Policy implementation and Planning and Ministry of Health, Nutrition and Indigenous Medicine. Demographic and Health Survey Sri Lanka. s.l. : Department of Census and Statistics, 2016. ISBN 978-955-702-053-2.

Neloufer de Mel, Pradeep Peiris, Shymala Gomez. Broadening gender: Why masculinities matter. s.l. : CARE and Partners for prevention, 2013. Broadening gender: Why masculinities matter Published by.

Domestic violence and female mental health in developing countries. L.T, K. A. L. A. Kurupparachchi .Wijeratne. 587-591., s.l. : British Journal of Psychiatry, 2005, Vol. 187.

Domestic violence: a cross-sectional study among pregnant women in different regions of Sri Lanka. Muzrif MM, Perera D, Wijewardena K, Schei B, Swahnberg K. 8(2):e017745, s.l. : BMJ Open, 2018. Domestic violence: a cross-sectional study among pregnant women in different regions of Sri Lanka. <https://www.ncbi.nlm.nih.gov>.

Intimate partner violence in Sri Lanka. Jayatilleke AC, Poudel KC, Yasuoka J, Jayatilleke AU, Jimba M. s.l. : Bioscience Trends. <https://www.ncbi.nlm.nih.gov/pubmed/20592458> (23-06-2018).

Galwaduge, Chandani. Country Profile on Gender-Based Violence Sri Lanka. s.l. : WHO, 2018. Chandani Galwaduge .Country Profile on Gender-Based Violence Sri Lanka (2018) WHO Publication.

Development of a screening instrument to detect physical abuse and its use in a cohort of pregnant women in Sri Lanka. Moonesinghe LN, Rajapaksa LC, Samarasinghe G. No.2, pp. 138-144, s.l. : Asia-Pacific Journal of Public Health, 2004, Vol. 16.

Emma Fulu, Rachel Jewkes, Tim Roselli, Claudia Garcia-Moreno. Prevalence of and factors associated with male perpetration of intimate partner violence: findings from the UN Multi-country Cross-sectional Study on Men and Violence in Asia and the Pacific. s.l. : Lancet Glob Health, 2013. 1: e187-207 .

Intimate partner violence in Sri Lanka: a scoping review. Guruge, Sepali, Jayasuriya-Illesinghe Vathsala, Gunawardena Nalika , Perera Jennifer. 10.4038, s.l. : Ceylon Medical Journal, 2016, Vol. 133.

Romance, sex and coercion: insights into undergraduate relationships Sri Lanka. Nalika Gunawardena, Manuj Weerasinghe, Lalini Rajapaksa, Pabasi Wijesekara, P.W.P. Chathurangana. s.l. : Journal of Psychiatry, 2011, Vols. 2 (2):54-59.

The prevalence and factors associated with intimate partner violence against women in the Western Province. Jayasuriya, M.V.F. s.l. : MD Thesis Community medicine 2007 (D1768).

Harsh realities A pilot study on Gender based Violence in the plantation sector . K, Wijethilake. s.l. : Plantation Human Development Trust, 2003.

The Response of Police in Preventing Domestic Violence in the Sammanthurai Police Area, Sri Lanka . Sufyan M.B.M, Riswan M and. s.l. : Proceedings of the Third International Symposium SEUSL:, Vols. 6-7 July 2013, Oluvil, Sri Lanka.

The prevalence and correlates of physical abuse within marriage in a cohort of pregnant women in the Badulla District,. LN, Moonesinghe. s.l. : Thesis for Doctor of Medicine in Community Medicine to the Post Graduate Institute of Medicine. . The prevalence and correlates of physical abuse within marriage in a cohort of pregnant women in the Badulla District, Thesis submitted for the Degree of Doctor of Medicine in Community Medicine to the Post Graduate Institute of Medicine, .

Intimate partner violence against women in the capital province of Sri Lanka: prevalence, risk factors, and help seeking. Violence Against Women. Jayasuriya V, Wijewardena K, Axemo P. 2011, Vols. 17(8):1086-102.

Effectiveness of counselling to improve psychological well-being of the survivors of gender based violence: a clinic based study in Sri Lanka. Jayathillake, A., Tissera, S., Pathirathne, A., Udawatte, B., Jayathillake, P., & Senanayake, L. 2015. Journal of Injury Prevention.

The need for an evidence-informed, multi-sectoral and community participatory action framework to address the practice of female genital mutilation in Sri Lanka. Wickramage, K., Senanayake, L., Mapitigama, N., Karunasinghe, J. and Teagal, E. 63(2), pp.53–57, s.l. : Ceylon Medical Journal, 2018.

WHO. Putting Women First: Ethical and Safety Recommendations for Research on Domestic Violence Against Women. . s.l. : WHO, 2003.

Wives' attitudes toward gender roles and their experience of intimate partner violence by husbands in Central Province, Sri Lanka. Jayatilleke A, Poudel KC, Sakisaka K, Yasuoka J, Jayatilleke AU, Jimba M. s.l. : Journal of Interpersonal Violence. , 2011 , Vol. 26(3).

Youth Sexual and Reproductive Health Research in Sri Lanka; Current Status, Challenges and Future Direction

M. Suchira Suranga



Mr. M. Suchira Suranga is a Monitoring & Evaluation and Programme Management Specialist with 15 years of experience in national and international development projects and organizations. He is currently working in the capacity of Senior Technical Adviser (Organizational Learning and Evaluation), South Asian Regional Office, International Planned Parenthood Federation (IPPF). He completed B.Sc. degree in Agricultural Economics, an M.Sc degree in Organizational Management and an M.Phil.n degree in Reproductive Health at the University of Peradeniya. Mr. Suranga also followed an M.Sc degree in Bio-statistics. He has publications in a number of international and national peer-reviewed journals and has made presentations at international, regional and national conferences. Mr. Suranga serves as a visiting lecturer and an examiner for the Post Graduate Diploma in Evaluation, University of Sri Jayewardenepura.

Introduction

The World Health Organization (WHO) defines adolescents as those people between 10 and 19 years of age where as youth are defined as persons between the ages of 15 and 24. This age range falls within WHO's definition of young people, which refers to individuals between ages 10 and 24. (World Health Organization, 2015). In line with the WHO definition, many countries of the world define youth as those between ages 15-24 years, the period of transition from childhood to adulthood (Population Reference Bureau , 2017). Deviating from the common definition used by most of the countries, Sri Lanka defines youth as between the ages of 15-29 years (Ministry of Youth Affairs and Skills Development, 2014). However, this paper uses the WHO definition of youth, unless specifically stated.

The Sri Lankan youth population of 4.7 million enumerated in 2012 is expected to increase to 5.2 million by 2032; over 10 per cent increase during 2012-2032 (De Silva & De Silva, 2015). Although the volume of youth population is expected to increase in the coming decades, youth as a proportion to the total population is on the decline. Although this proportion has reached the peak by recording 30 per cent by 1981, by 2012 the corresponding proportion had declined to 23 per cent. By 2017, it has further declined to 22 per cent, and beyond that it would decline significantly primarily due to the emerging rapid ageing process (De Silva

& De Silva, 2015).

A substantial change has been observed in the demographic environment in Sri Lanka during the past decades. Among such changes, is a paradigm shift in the age structure, particularly the emergence and re-emergence of 'youth bulge', which could have important implications for the Sri Lankan society (De Silva, 2019). A number of countries in the world have encountered failure in addressing this challenge, where repercussions have resulted in serious insurrections. Furthermore, in some occasions, the phenomenon is linked with ethnic strife, which usually causes the deterioration of the entire socio-economic base of that country (Mayer, 2004).

Youth Sexual and Reproductive Health

Sexual and reproductive health is an integral part of overall health, well-being and quality of life. It is a state of physical, emotional, mental and social well-being in relation to sexuality, and not merely the absence of disease, dysfunction or infirmity (World Health Organization , 2019). The entry into the reproductive phase of the lifecycle is an important threshold in a person's life in which, the choice and the behavioural patterns acquired during early adolescence will determine the subsequent life course (United Nations, 1989). Important steps in this transitional process are several critical life events such as puberty, initiation to sexuality,

marriage and childbearing. The timing, as well as the sequence and context in which these events take place have immediate and long-term repercussions for the individual's sexual and reproductive health. Generally, the commencement of adolescence is associated with a period of rapid physical growth, in which a gradual development of reproductive organs occur, along with the appearance of gender specific secondary sex characteristics and menarche in girls (De Silva, 2019).

Adolescent and youth reproductive health, which comes under the above general definition, has been recognized by many researchers as a key development concern. While reproductive health information, counseling and service delivery, have been identified as necessary programmes for adults for decades, availability of such programmes has been more recently endorsed for adolescents and youth. The ICPD and other international conferences held subsequently, endorsed their rights to reproductive health information and services (De Silva, 2019).

Prevalence of Teenage Pregnancy

Prevalence of teenage pregnancy is a common reproductive health issue in many developing countries especially in Africa and Asia. In Sri Lanka, almost 5% of the pregnancies in 2016 were reported for teenage mothers (less than 20 years). However, the number and percentage of teenage pregnancies reported in the country shows a declining trend from 6% in 2012 to 4.8% in 2016. Recent statistics reveal that the sub national disparities of teenage pregnancies are higher in Sri Lanka ranging from 8.6% in Trincomalee to 2.6% in Mannar (Family Health Bureau, 2018). The result of the latest Demographic and Health Survey shows that 3% percent of ever married women had become childbearing as teenagers (Department of Census and Statistics, 2009). It is important to note that there is a significant decline compared to the percentage of teenage married women (6%) reported in 2006 (Department of Census and Statistics, 2009).

The National Family Planning Programme review conducted in 2016 pointed out that a considerable proportion of unmarried young persons in Sri Lanka are sexually active. The National Youth Health Survey 2012/2013 found that around 15% of the respondents declared they had sexual intercourse during the preceding year, of them 5.3% were unmarried (Family Health Bureau, 2015; Family Health Bureau, 2017). A Needs Assessment Survey on Sexual and Reproductive Health for Youth in Technical and Vocational Education and Training Sector in Sri Lanka in 2015 showed that one third of the respondents aged 15-29 had engaged in sexual intercourse (Family Health Bureau, 2017).

Other than national statistics and survey results described so far, there are plenty of good research studies on teenage pregnancies, associated risk factors, sub national disparities, etc. For example; a community based comparative study conducted in three districts of Sri Lanka (Colombo, Anuradhapura and Batticaloa) reveals that teenagers; Tamil (OR=3.31) and Muslim (OR=1.92) were at high risk of teenage pregnancy. Lower level of formal education (OR=1.95) and lack of knowledge on disadvantages of teenage pregnancies (OR=3.79), less support from teachers (OR=3.47) and lack of strictness in family (OR=2.01) have also contributed to teenage pregnancy. Teenagers with high confidence levels in decision making (OR=2.11) were also at risk of becoming pregnant (Fernando, et al., 2013). A descriptive study conducted in 2017 among 346 pregnant women in the estate sector (Ratnapura District) established that the incidence of teenage pregnancies among the study group was 10.1% (95% CI=7.7, 12.52). Of them 22.9% (n=8) were below 18 years of age and not legally married. A significant statistical association was observed for problems encountered in breastfeeding within the first 48 hours of delivery (p=0.009), for satisfactory weight gain within the first month (p=0.009) and whether the mother started a modern family planning method at six weeks

after delivery ($p=0.007$) (Malwenna, et al., 2017). These are only examples, but research evidences on teenage pregnancies in Sri Lanka are wider and beyond the scope of this paper.

Practice of Contraception Among Unmarried Youth

Contraceptive behavior of unmarried, young, sexually active girls are expected to be totally different from married women. According to South Asian standards, entering into nuptial bonds should be done at an early age. For a long time, the average age of entry into marriage in Sri Lanka has been 25 years for girls and 28 years for boys (De Silva, et al., 2010). The gap between puberty and marriage has widened in the last century, prolonging sexual activity and sexual behaviour before marriage. In 1901, the age of puberty was 14 years while the age of marriage was 18. In 2000 this was 12 years (age of puberty) and 26 years (age of marriage). The four-year gap has increased to 12 years (De Silva, 2015). However, the age at first marriage has reduced to 24 years in 2016. The girls in Sri Lanka do not marry at puberty but a decade later (Department of Census and Statistics, 2017; De Silva, 2019).

While the risk-taking period has expanded, the safety net provided by families/relatives who protect young girls has broken down. Socio-economic changes in a conservative culture has resulted in sex being more acceptable; opposition to sexual activity from all sectors including the family/authorities is diminishing. Pre-marital sexual behaviour without proper awareness about reproductive health can result in unwanted pregnancies and induced abortion. Therefore, age at first marriage and age at first sexual intercourse may not necessarily occur at the same time. The age at which women initiate sexual intercourse more precisely makes the beginning of their exposure to risk of pregnancy. However, DHS2016 does not show a significant difference between age at first marriage and age at first sexual intercourse (Department of Census and Statistics, 2017).

Findings of the recent national survey among young people in Sri Lanka reveal that around 5.3 percent of unmarried youth were engaged in sexual intercourse during the preceding year. Of the currently sexually active unmarried youth (who had sexual intercourse during the preceding year), 85.5% declared engaging with one sexual partner. A small proportion (7.2%) had two sexual partners while 3.2% of sexually active youth declared having three or more sexual partners during the stipulated period. Male youth were more likely to have multiple sex partners (Family Health Bureau, 2015).

Due to the stigmatized nature and sensitivity of pre-marital sexual acts in Sri Lankan society, it is extremely difficult to find and/or gather information on contraceptive use among unmarried young people. Therefore, there are limited national and subnational survey findings which focus on the contraceptive behavior of unmarried youth.

Practice of Contraception Among Married Youth

Data on contraceptive behavior of married youth are available in National Demographic and Health Surveys. As per the results of the recent Demographic and Health Survey (DHS), the median age at first marriage is 24 years. As described in Table 01, the contraceptive prevalence rate (CPR) and the modern contraceptive prevalence (mCPR) rate of young married women is significantly lower than the general contraceptive prevalence rate and modern contraceptive prevalence rate of Sri Lanka (Department of Census and Statistics, 2017). This pattern is visible in both 2006 and 2016 DHS surveys. The above results show that there are some restrictions for young people to access contraceptive services even if they are married when compared to their older counterparts. However, it is important to note that the difference in CPR and mCPR between young married women (10-24) and adult married women (25-49) has reduced from the year 2006 to 2016.

Table 01: Percentage of currently married women age 15-49 currently using traditional and modern contraceptives according to age group, comparison of data from DHS 2006 and 2016

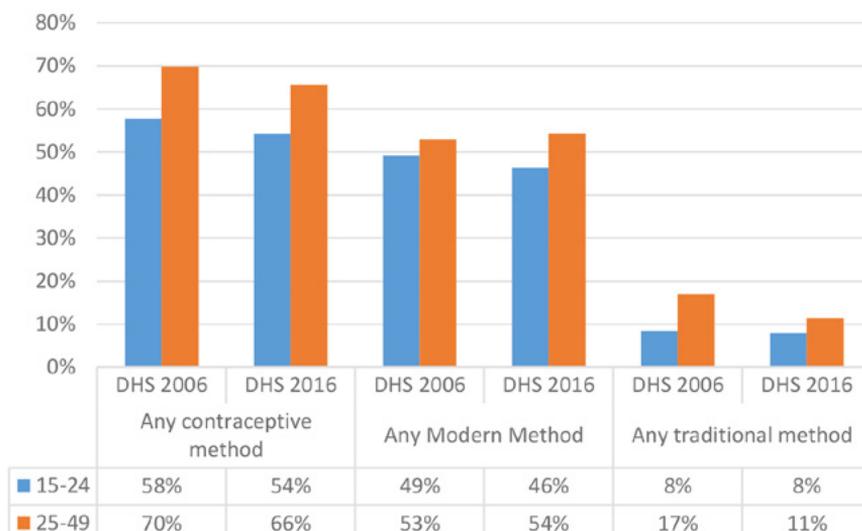
Age	Any contraceptive method		Any traditional method		Any Modern Method		Number of women	
	DHS 2006	DHS 2016	DHS 2006	DHS 2016	DHS 2006	DHS 2016	DHS 2006	DHS 2016
15-19	53.7	43.5	8.9	6.0	44.9	37.5	314	225
20-24	58.6	56.0	8.4	8.2	50.2	47.8	1,332	1,373
15-24	57.7	54.2	8.5	7.9	49.2	46.3	1,646	1,598
25-29	64.2	58.6	10.7	7.2	53.4	51.3	2,356	2,559
30-34	69.8	63.6	13.3	9.7	56.6	54.0	2,549	3,481
35-39	74.4	71.1	18.4	10.9	56.0	60.2	2,589	3,757
40-44	75.5	72.0	22.2	14.6	53.3	57.4	2,456	3,033
45-49	64.3	60.6	20.2	14.3	44.1	46.3	2,152	2,851
25-49	69.9	65.7	16.9	11.4	53.0	54.3	12,102	15,659
All	68.4	64.6	15.9	11.0	52.5	53.6	13,748	17,257

Source Source: - Demographic and Health Survey 2006 and 2016. Data for age group 15-24 and 25-49 were calculated by the author using statistics published in the survey.

As illustrated in figure 02, both CPR and mCPR has reduced significantly from the year 2006 to 2016. This result is common for both young married women and adult married women. Around 8% of married young women were using traditional methods in 2016 which was

not a significant difference from the findings of the previous DHS survey (2016). Percentage of married young women who are using traditional methods were significantly lower than their adult counterparts.

Figure 01: Graphical illustration of contraceptive prevalence rate and modern contraceptive prevalence rate of young and adult currently married women in 2006 and 2016



As described in Table 02, the most common modern method of contraception among young married women is the injectable (12%), followed by the implant (10%), IUD (9%) and OCP (9%). Less than 5% of married young women are using male condoms which is the only contraceptive method with dual protection (Department of Census and Statistics, 2017). Young (15-24) married women are using implants, injectables and OCPs more than their adult (25-49) counterparts. Sterilization, IUD and condoms are more common among adult married women (Department of Census and Statistics, 2017). As illustrated in figure 02, the percentage of young married women who are

using implants, IUD and male condoms has increased over time from the year 2006 to 2016. Implants show the highest increase from less than 01% in 2006 to 10% in 2016 which is more than 10% increase. Comparatively, the percentage of young married women (15-24) who are using injectables and male condoms shows a reduction during the past decade. Use of injectables recorded a remarkable reduction from 26% in 2006 to 12% in 2016 (Department of Census and Statistics, 2009; Department of Census and Statistics, 2017). This may be due to the increased preference of the 5 year implant (Jadelle) among Sri Lankan women.

Table 02: Percentage of currently married women aged 15-49 by contraceptive methods currently used according to age, Comparison of data from DHS 2006 and 2016

Age	Male Condoms		OCP		Injectable		Implants		IUD	
	DHS 2006	DHS 2016	DHS 2006	DHS 2016	DHS 2006	DHS 2016	DHS 2006	DHS 2016	DHS 2006	DHS 2016
15-19	3.4	2.7	12.4	9.2	23.5	8.2	0.3	14.0	5.2	3.4
20-24	4.5	5.0	11.2	9.3	27.1	12.9	0.7	9.4	6.5	10.4
15-24	4.3	4.7	11.4	9.3	26.4	12.2	0.6	10.0	6.3	9.4
25-29	6.9	8.9	9.5	10.1	25.9	12.8	0.4	7.2	7.7	10.9
30-34	7.7	8.4	11.4	10.6	20.1	1.09	0.5	5.9	8.4	11.2
35-39	6.6	7.5	9.3	9.5	11.7	9.2	0.3	4.1	7.7	13.3
40-44	5.2	6.5	5.2	7.4	5.9	6.1	0.1	2.2	5.9	10.4
45-49	2.4	4.9	2.1	4.4	1.7	2.0	0.0	0.7	2.1	6.9
25-49	5.9	7.3	7.7	8.5	13.3	6.1	0.3	4.0	6.5	10.7
All	5.7	7.0	8.1	8.6	14.8	8.6	0.3	4.6	6.5	10.6

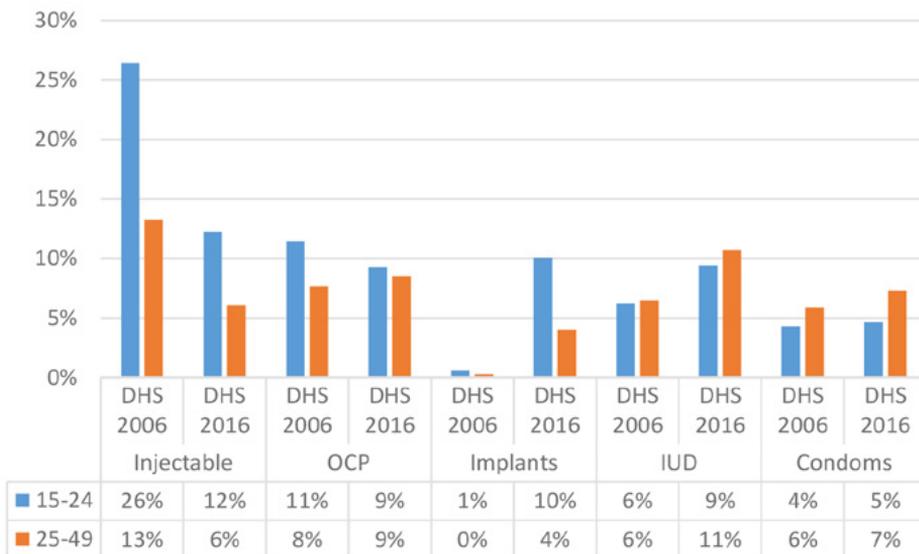
Source: - Demographic and Health Survey 2006 and 2016. Data for age group 15-24 and 25-49 were calculated by the author using statistics published in the survey.

In 1988, the Sri Lankan government enforced limitations on the minimum age at which a woman can get sterilized. Before 1988, a significant proportion of women who had the sterilization operation were either under 25 years of age or had two children with the second child being very young. Since the imposition of these new criteria, a woman under age 26 can get sterilized only if she has a minimum of 3 living children and her spouse insists on a sterilization. Those who are over 26 years of age should have at least two living

children, the youngest of whom should be over two years of age. Therefore after 1988, sterilization is not considered as a common method among young people. Only 16.7% of women get sterilized before the age of 25 as per the results of the 2016 Demographic and Health Survey (Department of Census and Statistics, 2009). As was expected, this percentage was further reduced to 7.4% by 2016. The median age of sterilization in 2016 was 32.2 years. Out of the women who were sterilized during their younger age (i.e. before

25), majority have performed the procedure (Department of Census and Statistics, 2017).

Figure 02: Graphical illustration of the use of modern contraceptive methods among youth and adults- currently married women in 2006 and 2016 disaggregated by contraceptive method



Proportion of women who (1) are not pregnant and not postpartum amenorrhoeic, are considered fecund, and want to postpone their next birth for 02 more years or stop childbearing altogether but are not using a contraceptive method OR (2) have a mistimed or unwanted current pregnancy, OR (3) are postpartum amenorrhoeic and their last birth in the last 2 years was mistimed or unwanted is considered as an unmet need for family planning. Almost 13% of currently married young women were recorded as having an unmet need for family planning. This is a significantly a higher rate compared to the unmet need for family planning in Sri Lanka (7.5%) (Department of Census and Statistics, 2017). The unmet need for family planning is higher among young (15-24) married women compared to their adult counterparts.

7.4 % from 2011. However, the sub national disparity for unmet need in family planning is wider ranging from 2% in Kilinochchi to 9.7% in Vavuniya (Family Health Bureau, 2018).

Practice of Emergency Contraception Among Sri Lankan Youth

Emergency Contraception (EC) is a method of preventing a pregnancy soon after unprotected sexual intercourse, after a sexual assault or rape, if a condom breaks or a diaphragm slips out of place or if a woman forgets to take birth control pills. Emergency Contraceptive pills (ECP) have been available for more than 30 years globally, and for more than 10 years in Sri Lanka. ECP is not a family planning method. It can be taken to prevent pregnancy within 72 hours of unprotected sexual intercourse (Byamugisha, et al., 2006).

As per the latest data published by the Family Health Bureau, 67.1% of eligible couples were using a contraceptive method in 2016 and 6.3% of eligible families had an unmet need for family planning showing a decrease from

In September 1997, the Sri Lanka Consortium, coordinated by the Family Planning Association of Sri Lanka (FPASL), initiated a project to make a dedicated emergency contraception product (Postinor-2) available through

pharmacists, general practitioners, youth groups, and community health workers. After the Consortium members met with local regulatory authorities, Postinor-2 received final approval in April 1998 for sale in both the private and public sectors (International Consortium for Emergency Contraception, 2006). From the time of introduction, use of emergency contraception increased among Sri Lankan women every year. It can be assumed that over 3 million Emergency Contraceptive Pills are used by women in Sri Lanka annually (Suranga & De Silva, 2019). However, there is no research evidence on the profile of emergency contraceptive users and their sexual and social behavior.

Research evidence and data on use of emergency contraception among young people in Sri Lanka is very limited and difficult to gather in a Sri Lankan context. Demographic and Health Surveys conducted in 2006 and earlier have not gathered data on use of emergency contraceptives (Department of Census and Statistics, 2009). As per the DHS-2016, only 0.3% of married women between the ages of 20 and 24 are currently using emergency contraception. There were no records on use of emergency contraception among teenage (15-19) married women (Department of Census and Statistics, 2017). This may be considered as under-reporting owing to the nature of EC behavior and current trend in sales of emergency contraceptives. However, it is important to note that the proportion of young married women (20-24) who are currently using emergency contraceptives (0.3%) is higher than the proportion of adult married women (0.1).

Data on use of emergency contraceptives among unmarried youth is limited but assumed to be higher than among the married youth based on available facts. According to the National Youth Health Survey 2012/2013, almost one tenth (9%) of sexually active youth or their partners had used ECP during the preceding month (Family Health Bureau, 2015).

In a focus group discussion of the National Family Planning Review (2016), a pharmacist in the Colombo district has expressed that "Our sales of ECP are highest during Valentine's day. It is children going to international schools who come and buy them". In the same study, an unmarried woman in Monaragala district (age - between 20 to 30) has complained that "the pharmacy asks for a prescription to purchase Postinor".

Further, the National Family Planning Programme Review Report (2016) points out that knowledge about ECP was poor, especially among unmarried women (Family Health Bureau, 2017). As per the findings of the National Youth Health Survey, 45% of the respondents (85% of them are unmarried) had heard of emergency contraceptive pills. However, a significant variance was observed between strata where youth from the estate sector and the north east reporting significantly lower awareness when compared to urban and rural youth. Of the school going youth, around one third (35%) have heard about ECP. The majority of the respondents (71%) were unaware of the time interval that ECP should be taken after a sexual act. However the married youth had a significantly higher knowledge of the time interval that ECP should be taken after sex. Confirming the findings of the National Youth Survey (2016), in a study conducted among 395 undergraduate students of the Kothalawala Defense University in Sri Lanka, only 69.1% had heard of ECP. Most of the students, 42.5% knew that it is more effective to take ECP soon after unprotected sexual intercourse. Majority of the students, 57.5% had not received information regarding side effects or problems that might occur after use of ECP. Around one fifth (20.2%) of the respondents were of the view that it can be used as a contraceptive method. Around 13.4% had stated that ECP might prevent STI's and HIV. Among the total participants, only 25 (6.5%) had used ECP (Boteju, Samaratunge, Fernandopulle, & Priyadarshanie, 2016). Another community based study conducted

among 267 girls and residents in the Colombo city of Sri Lanka revealed that only 40% of the respondents had correct knowledge on emergency contraception (Suranga, Silva, Senanayake, & De Silva, 2016). An oral presentation in a public seminar on access to Sexual and Reproductive Health (SRH) information and counselling for youth via information communication tools available through the Happy Life Contact Centre of FPA Sri Lanka revealed that the majority of young people (31% of 1083) had contracted the center via telephone in 2015 to receive information on Emergency Contraceptives. Most of the clients who have requested information on ECP were recorded as boys below the age of 25. (Tissera, Suranga, Jayathilake, Kodikara, & De Silva, 2016).

Practice of Abortion Among Sri Lankan Youth

Abortion is the termination of a pregnancy, whether spontaneous or induced (Kottke & Zieman, 2008). Induced abortion is caused intentionally by the administration of drugs or by mechanical means (The American Heritage Medical Dictionary, 2002). Illegal abortion is an induced abortion performed contrary to the laws regulating abortion in that country (Mosby's Medical Dictionary, 2009). According to the World Health Organization (WHO), an unsafe abortion is the termination of an unintended pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards or both (WHO, 2007).

Research on the practice of induced abortion is of utmost importance as it can affect the health of young persons and can determine the level of fertility in the country. As the word "abortion" is highly stigmatized in many societies, data availability and data gathering in relation to induced abortion is a real challenge. Having said that, data collection on the practice of abortion among young people in general, unmarried in particular is even more challenging (Suranga & De Silva, 2019). As per the Sri Lanka penal code of 1883

section 303, abortion is a criminal offence in Sri Lanka except when performed to save the life of the mother. Any person performing an illegal abortion, of either description is liable to be punished with imprisonment for a term which may extend up to 3 years or with a fine or with both. A woman who induces her own miscarriage is subject to the same penalties. (Penal Code Sri Lanka - Section 303, 1883). According to section 304, in case of death of such women, the person performing an illegal abortion shall be punished with imprisonment up to 20 years (Penal Code Sri Lanka - Section 304, 1883). This legal status of the country creates an even more challenging environment to implement research on induced abortion among young people in Sri Lanka.

However, prevalence of unwanted pregnancies among young persons in Sri Lanka is not negligible. A National Survey conducted among 4,427 female adolescents found that 42 respondents (0.94 percent) have resorted to aborting their unwanted pregnancy (Talagala, et al., 2004). A relatively lower figure (0.1 percent) was reported in the most recent National Survey among youth in Sri Lanka (Family Health Bureau, 2015). A questionnaire based study conducted in 1982 among 401 registered medical practitioners found that the largest percentage of unwanted pregnancies was in the 20-24 years age group. Majority of them were married women (Kodagoda & Senanayake, 1982). However, the percentage of young women below the age of 25 among abortion seekers is relatively low. As described in Table 03, the percentage of teenage abortion seekers ranged from 2.0 – 8.6 percent. Confirming the findings of these six studies, the most recent study among abortion seekers found that the average age of the sample is 31.1 years (Talagala, 2010). This is a deviation from developing regions of the world and contrary to common belief, that most women seeking abortion are unmarried teenagers.

Table 03: Age distribution of abortion seekers in Sri Lanka; a comparison of data from six past studies.

	Study	Age Group					
		15-19	20-24	25-29	30-34	35-39	40+
01	Contraceptive behavior of abortion seekers in Sri Lanka (De Silva, et al., 2006)	2.9	11.4	25.5	22.5	26.8	10.9
02	Knowledge, behavior and attitudes on induced abortion and family planning among Sri Lankan women seeking termination of pregnancy (Perera, et al., 2004)	8.6	40		41.9		9.5
03	Induced abortion in Sri Lanka; Who goes to providers for pregnancy termination (Ban , et al., 2002)	3	16	25	27	21	09
04	Profile of women seeking abortion (Rajapakshe & De Silva, 2000)	3	15.6	26.6	26.1	20.1	8.5
05	Abortion in Sri Lanka; Public attitudes, client profile and some related aspects (The Family Planning Association, 1993)	4.0	16.5	28.6	22.7	19.9	8.4
06	A Report by the Ministry of Plan Implementation (Ministry of Plan Implementation, 1983)	5.3	32	22.6	30.6	9.5	

Source: - Findings of the national and sub national level research conducted by various researches (From 1983 to 2006).

Research on induced abortion among unmarried young girls in Sri Lanka is limited. There is no reliable data available on the prevalence of unwanted pregnancies and unsafe abortion among unmarried teenagers except few qualitative studies with limited sample size. However, as described in Table 04, findings of past studies clearly indicate that only 10 percent of abortion seekers in Sri

Lanka are unmarried. Majority of unmarried abortion seekers visited the abortion clinic for termination of their first pregnancy. This was due to the influence of their parents or male partner, or as a result of the partner's desertion or refusal to accept paternity. However, among the married, only a small proportion terminated their first pregnancy.

Table 04: Marital status of abortion seekers / women who have undergone induced abortions in Sri Lanka; a comparison of data from seven past studies.

	Study	Marital Status			
		Married	Never Married	Living together	Divorced
01	Unsafe abortions in Sri Lanka –facts and risk profile (Talagala, 2010)	94	6		
02	Contraceptive behavior of abortion seekers in Sri Lanka (De Silva, et al., 2006)	90.2	8.8		1.0
03	Knowledge, behavior and attitudes on induced abortion and family planning among Sri Lankan women seeking termination of pregnancy (Perera, et al., 2004)	86.6	13	0.4	
04	Induced abortion in Sri Lanka; Who goes to providers for pregnancy termination (Ban , et al., 2002)	90	10		
05	Profile of women seeking abortion (Rajapakshe & De Silva, 2000)	93.7	5.29	0.4	0.1
06	Abortion in Sri Lanka; Public attitudes, client profile and some related aspects (The Family Planning Association, 1993)	97.5	1.9		0.6
07	A Report by the Ministry of Plan Implementation (Ministry of Plan Implementation, 1983)	96	4		

Source: - Findings of the national and sub national level research conducted by various researches (From 1983 to 2010).

A qualitative study conducted among 19 unmarried women in Colombo city of Sri Lanka on their decisions to terminate a pregnancy reveal that becoming pregnant following a love relationship was predominant in the sample. Awareness of contraceptives varied and initial reaction to the pregnancy involved strong contradictory emotions. Multiple interrelated factors were considered in the decision-making for termination.

Family pressure was the most prominent factor followed by the partner's qualities and attitude towards the pregnancy, economic factors and own feelings, values and future fertility. The women described that their own emotional, religious and economic reasons for continuing the pregnancy were often outweighed by their responsibility to the family, male partner and unborn child. These unmarried women's sexual and reproductive rights were limited and for many the pregnancy termination was socially unsafe. They found themselves at the interface of two value systems. Modern values allow for relationships with men prior to marriage; whereas, traditional values did not. The limited possibilities to prevent pregnancies and little hope for support if continuing the pregnancy made women seek pregnancy termination despite their own doubts (Pia & Wijewardena, 2010).

Youth as a Vulnerable Population for HIV/AIDS and Sexually Transmitted Infections

The National STD/AIDS Control Programme (NSACP) of Sri Lanka periodically conduct national level research to assess the risk behavior and HIV/STD prevalence among key populations. However, these studies have not provided special attention to the youth except for a few indicators which provide age specific information. However, the Annual Report of the NSACP covers a substantial amount of information on clinical results of youth. There are a limited amount of sub national researches which focus on vulnerability behaviors of youth for HIV and STDs. Only a limited number

of research studies have focused on the youth sub population of Most at Risk Populations (MARP).

The latest (2016) Annual report of NSACP revealed that out of 300 HIV cases reported in 2018, 10% were found to be youth. The percentage of HIV cases reported among youth from 2015 to 2016 range between 8% to 16%. A significant proportion of other Sexually Transmitted Infections (STIs) cases were also reported among youth (NSACP, 2019). As per the recent national size estimation, it is estimated that there are 31,748 Female Sex Workers (FSW), 8120 Men who having Sex with Men, 6000 Male Sex Workers (MSW), 2672 People Who are Injecting Drugs (PWID), 1711 Transgender Women (TGW) and 11439 Beach Boys (BB) in Sri Lanka (NSACP, 2018; NSACP, 2019).

The National Size Estimation does not profile the age structure of the most at risk populations. However, the proportion of Key Population (MARP) derived through the latest Integrated Biological and Behavioral Surveillance Survey (IBBS - 2018) was used to estimate the number of youth MARP in the country (NSACP, 2018). As determined in Table 05, 18% of the Most at Risk Population (n=10,494) in Sri Lanka is considered to be under the age of 15 years.

Table 05: Estimated number of youth (Below 25) among the Most At Risk Population for HIV.

Most at Risk Population	National Size Estimation ²	Estimated percentage of Youth Key Population (IBBS - 2018)					Sri Lanka ¹	Estimated Number of Youth
		Colombo	Kandy	Galle	A'pura	Jaffna		
FSW	31,748	6.8	8.0	5.3			6.7	2130
PWID	2672	6.2					6.2	166
MSM	8120	24.4		60.0	15.9		33.6	2732
MSW	4024						33.6	1354
TWG	1711	26.0				45.7	35.8	613
BB	11439			30.6			30.6	3500
Total	59,714							10,494

Note:-

1.National figure was calculated using weighted average based on sample size

2.Results of the mapping and enumeration technique was used as it is more scientific compared to consensus building (Figure for usual day average was used)

Source: - Author calculation based on the findings of the National Size Estimation-2018 and Integrated Biological and Behavioral Surveillance Survey-2018.

Further results of the IBBS-2018 clearly shows that a considerable proportion of MARP have started risky sexual behavior during their young age (before 25). Also, it is noteworthy

to highlight that a significant proportion of MARP had started sexual activities even before reaching 18 years of age.

Table 06: Age at which the risky behavior commenced by the Most at Risk Population for HIV

Indicator	District Estimation (IBBS-2018)					National Estimation ¹
	Colombo	Kandy	Galle	A'pura	Jaffna	
Percentage of FSWs who had first vaginal sex before completion of age 17	46.3	25.7	30			35.00
Percentage of FSWs who had received money for sex before completion of age 17	11	4	1.6			5.98
Percentage of FSWs who had received money for sex before completion of age 24	79.2	23.7	30.5			47.29
Percentage of MSM who had first anal sex with men before completion of age 17	66.6		17.4	28.5		37.39
Percentage of PWIDs who had injected drugs before completion of age 17 (Self or by others)	18.8					18.8
Percentage of BBs who had first anal sex with men before completion of age 17 (Out of those who have ever had sex with a man)			61.2			61.2
Percentage of TGW who had first anal sex with men before completion of age 17	87				62.9	75.00

Note: - National figure was calculated using weighted average based on sample size

Source: - Author calculation based on the findings of Integrated Biological and Behavioral Surveillance Survey-2018.

SRH Service for Adolescents and Youth

Health services for adolescents are not a discrete entity in Sri Lanka. A person below 12 years of age is entitled to outpatient and in-ward care in paediatric services while those above 12 years have to seek these services as adults. This may be due to the common perception that adolescents are healthy as well as the overwhelming focus on the mother and child in the orientation and establishment of sexual and reproductive health services. Sri Lanka does however have a School Health Promotion Policy and Programme and the Family Health Bureau has incorporated adolescent health into the existing School Health Unit. This Unit conducts school health inspections at Years 1, 4 and 7 and collaborates closely with the Health Unit of the Ministry of Education in the delivery of the Life Skills Programme. The Life skills Programme in Government secondary schools is the vehicle through which inputs on sexual health are expected to be provided to students (Silva, 2015). The recently released National Youth Policy of Sri Lanka 2014 by the Ministry of Youth Affairs and Skills Development is heavily orientated on the role of youth in development and its focus on the health of youth is relatively low. It notes the importance of integrating comprehensive sexuality education (CSE) into school curricula (Ministry of Youth Affairs and Skills Development, 2014). In reality however, teachers are reluctant to discuss these topics in the classroom due to cultural inhibitions (Silva, 2015).

While there is no formal mechanism to restrict adolescents from accessing the desired sexual and reproductive health services, many barriers exist, including the behaviour and attitudes of the adolescents themselves and that of the service providers. The situation of unmarried and married adolescents differs significantly, yet both groups are neglected when it comes to reproductive health services (De Silva, 1998). Sri Lanka National Strategic Master Plan on Health (2016-2025) recognizes the importance of youth friendly health services for young people. It proposed to combine underutilized

clinics operated in hospitals with youth friendly services (Ministry of Health, 2015). Going forward, the Family Health Bureau recently developed the standards for quality health services for adolescents and youth in Sri Lanka which include 08 quality standards of youth friendly services (Family Health Bureau, 2018). Adolescent and Youth Friendly Health Service (AYFHS) concept was introduced in Sri Lanka in 2005. Although around 50 AYFHS centres were established by late 2008, there were only nine AYFHS centres functioning by 2015. Meanwhile the “Youth” component was incorporated into the Family Health Programme of the Family Health Bureau in the latter half of 2015. With that, revamping of the AYFHS was initiated under the concept of “Yowun Piyasa” with three models; as hospital based, MOH office based and separate independent youth centers. The newly developed “Yowun Piyasa” protocol acknowledged the requirement for availability of pregnancy test strips, condoms and other temporary contraceptive items such as Oral Contraceptive Pills and injectables along with Emergency Contraceptive Pills (Family Health Bureau, 2018).

Challenges and Future Directions

As discussed, in the previous section, implementation of SRH research among young persons, specifically among adolescents is challenging due to the social, cultural and legal situation of the country. Most of the community based household surveys are considered to be biased as most of the time the interview is carried out in the presence of parents and adults. Therefore, most of the national level surveys are limited to knowledge and attitudes, with a few indicators on sexual behaviors. Most of other sampling methodologies may work in a school setting but inclusion of out of school youth is challenging. The most challenging segment of youth, to focus SRH research on are unmarried girls and boys, although a substantial proportion of them are sexually active. Practice of contraception, emergency contraception and

induced abortion is considered to be the most challenging research area among this segment of youth.

Research on increased use of contraception by adolescents and young people has been identified as one of the priority areas that could contribute to improvement of SRH of adolescents and young people. Given the current momentum for family planning, it is even more critical to streamline research and prioritize reaching adolescents with high quality contraceptive services. Researchers should focus on filling existing gaps, including testing programmes that expand the method mix for adolescents and figuring out what works to reach vulnerable populations (Gottschalk & Ortayli, 2014). A considerable knowledge gap can be identified on practice of Emergency Contraception by young people especially among those who are not married but sexually active. Future community based research and marketing researches are needed to identify purchasing behavior of Emergency Contraceptives by young persons. A considerable knowledge gap is existing with regards to first trimester medical abortion which may be happening among young person's privately. Community based research with adequate focus on young persons are

needed to identify the health risk associated with those practices.

National wide, hot-spot based surveys on HIV/ STI risk behaviors of most at risk populations are mostly conducted using mapping and enumeration methods or/and with Respondent Driven Sampling (RDS) approach. Although the existing national surveys have not excluded young people; analysis and the IBBS report has not adequately addressed the risky behaviors of youth sub-populations.

The statistics and analysis presented in this paper titled "Youth Sexual and Reproductive Health Research in Sri Lanka; Current Status, Challenges and Future Direction" clearly shows the significant risky behavior among Sri Lankan youth and related knowledge gap for policy and programme planning. Future research must address this knowledge gap.

Acknowledgement

Prof. W. Indralal De Silva, Emeritus Professor of Demography, University of Colombo for his guidance and direction to develop this paper. Ms. Natasha De Rosayro, Communication Officer at FPA Sri Lanka for proofreading and technical support in finalizing this paper.

References

- Ban , D. J., Kim, J. & De Silva, W. I., 2002. Induced Abortion in Sri Lanka; Who goes to providers for pregnancy termination. *Journal of Biological Science*, Volume 34, pp. 303-315.
- Byamugisha, J. K., Mirembe, F. M., Faxelid, E. & Gemzell-Danielsson, K., 2006. Emergency Contraception and Fertility awareness among University Students in Kampala, Uganda. *African Health Sciences*, 6(4).
- De Silva, I. W., 2019. Chapter 01 : Introduction to Youth SRH Issues. In: I. W. De Silva, ed. *Sri Lankan Youth; Emerging SRH Challenges*. Colombo, Sri Lanka: Child Fund (to be published).
- De Silva, W. I., 1998. *Emerging Reproductive Health Issues among Adolescents in Asia*, Harvard: Harvard School of Public Health.
- De Silva, W. I., 2015. *Sri Lanka; Paradigm Shifts in Population*. Colombo, Sri Lanka: The National Centre for Advanced Studies in Humanities and Social Sciences.

De Silva, W. I., Dayananda, R. A. & Perera, B. N., 2006. Contraceptive Behaviour of Abortion Seekers in Sri Lanka. *Asian Population Studies*, 2(1).

De Silva, W. I. & De Silva, R., 2015. Sri Lanka: 25 million people and implications - population and housing projections; 2012-2062, Colombo, Sri Lanka: United Nations Population Fund, Colombo..

De Silva, W. I., Perera, B. N. & Anuranga, K. C., 2010. Below to above replacement: Increased fertility and its determinants in Sri Lanka. *Asia Pacific Population Journal*, 25(2), pp. 27-52.

Department of Census and Statistics, 2009. Demographic and Health Survey - 2006 / 2007, Colombo: Department of Census and Statistics.

Department of Census and Statistics, 2017. Demographic and Health Survey - 2016, Colombo, Sri Lanka: Department of Census and Statistics.

Family Health Bureau, 2015. National Youth Health Survey 2012/2013 Sri Lanka, Colombo: Adolescent and Youth Health Unit, Family Health Bureau.

Family Health Bureau, 2017. National Family Planning Programme Review 2016 - Sri Lanka. [Online]
Available at: <https://drive.google.com/file/d/1MFs4rcStpt6Rj53BDI8gM8-IHhm0kDG5/view>
[Accessed 20 August 2019].

Family Health Bureau, 2018. Family Health Bureau Annual Report 2016, Colombo, Sri Lanka: Monitoring and Evaluation Unit, Family Health Bureau.

Family Health Bureau, 2018. Protocol for Yowun Piyasa; Adolescent and Youth Friendly Health Service (AYFHS) Center. [Online]
Available at: https://drive.google.com/file/d/1h4d9UcKD3tyhN9_1ndFnh6b7oYHzhaL7/view
[Accessed 20 August 2019].

Family Health Bureau, 2018. Standards for Quality Health Services For Adolescents And Youth In Sri Lanka, Colombo, Sri Lanka: Family Health Bureau.

Fernando, D. et al., 2013. Risk factors for teenage pregnancies in sri lanka: perspective of a community based study. *Health Science Journal*, 7(3), pp. 269-284.

Gottschalk, L. B. & Ortayli, N., 2014. Interventions to improve adolescents' contraceptive behaviors in low- and middle-income countries: a review of the evidence base. *Contraception*, 90(2014), pp. 211-225.

Kodagoda, N. & Senanayake, P., 1982. Some aspects of abortion in Sri Lanka. London: International Planned Parenthood Federation.

Kottke, J. M. & Ziemann, M., 2008. Management of Abortion . In: *Operative Gynecology* Lippincott Williams & Wilkins. s.l.:s.n.

- Malwenna, L. I. et al., 2017. Incidences and outcomes of the teenage pregnancies in the estate sector of Ratnapura district in Sri Lanka. *Sri Lanka Journal of Medicine*, 26(2), pp. 13-19.
- Mayer, M., 2004. Reinterpreting ethnic tensions in Sri Lanka.. In: H. Ameena, ed. *Race: Identity, caste and conflict in the South Asian context*., Colombo, Sri Lanka: International Centre for Ethnic Studies.
- Ministry of Health, 2015. *National Health Strategic Master Plan (2016-2025)*, Colombo, Sri Lanka: Ministry of Health - Sri Lanka.
- Ministry of Plan Implementation, 1983. Colombo: Ministry of Plan Implementation.
- Ministry of Youth Affairs and Skills Development, 2014. *National youth policy of Sri Lanka*, Colombo, Sri Lanka: Ministry of Youth Affairs and Skills Development.
- Ministry of Youth Affairs and Skill Development, 2014. *National Youth Policy Sri Lanka*, Colombo, Sri Lanka: Ministry of Youth Affairs and Skill Development.
- Mosby's Medical Dictionary, 2009. *Mosby's Medical Dictionary*. 8th ed. s.l.:St. Louis, Mosby Elsevier.
- NSACP, 2018. *Integrated Biological and Behavioral Surveillance Survey - 2018*, Colombo, Sri Lanka: National STD AIDS Control Programme.
- NSACP, 2018. *National Size Estimation for the Most at Risk Population for HIV in Sri Lanka*, Colombo, Sri Lanka: National STD/AIDS Control Programme.
- NSACP, 2019. *National STD/AIDS Control Programme; Annual Report - 2018*, Colombo, Sri Lanka: National STD/AIDS Control Programme.
- Penel Code Sri Lanka - Section 303, 1883. Penel Code Sri Lanka - Section 303, s.l.: s.n.
- Penel Code Sri Lanka - Section 304, 1883. Penel Code Sri Lanka - Section 304, s.l.: s.n.
- Perera, J., De Silva, T. & Gange, H., 2004. Knowledge, behaviour and attitudes on induced abortion and family planning among Sri Lankan women seeking termination of pregnancy. *Ceylon Medical Journal*, March, 49(1), pp. 14-17.
- Pia, O. & Wijewardena, K., 2010. Unmarried women's decisions on pregnancy termination: Qualitative interviews in Colombo, Sri Lanka. *Sexual & reproductive healthcare: official journal of the Swedish Association of Midwives*, 1(4), pp. 135-141.
- Population Reference Bureau , 2017. *World Population Data Sheet with Focus on Youth*, Washington D.C. , Washington D.C. : Population Reference Bureau.
- Rajapakshe , L. & De Silva, W. I., 2000. *Profile of Women Seeking Abortion* , Colombo: University of Colombo.
- Silva, E., 2015. *Country Profile on Universal Access to Sexual and Reproductive Health*, Colombo,

Sri Lanka: Women and Media Collective.

Suranga, M. S. & De Silva, I. W., 2019. Chapter 07; Contraception and Family Planning. In: I. W. De Silva, ed. Sri Lankan Youth; Emerging SRH Challenges. Colombo, Sri Lanka: Child Fund (To be published).

Suranga, M. S. & De Silva, I. W., 2019. Chapter 08 ; Abortion. In: I. W. De Silva, ed. Sri Lankan Youth; Emerging SRH Challenges. Colombo, Sri Lanka: Child Fund.

Talagala, N., 2010. Unsafe abortions in Sri Lanka –facts and risk profile. Journal of Colledge of Community Physicions of Sri Lanka, 15(1), pp. 1-12.

Talagala, N., Rajapakshe, L. & Yakandawala, H., 2004. National Survey on Emerging Issues among Adolescents in Sri Lanka, Colombo: UNICEF Sri Lanka.

The American Heritage Medical Dictionary, 2002. The American Heritage Stedman's Medical Dictionary. [Online]

Available at: <http://dictionary.reference.com/browse/inducedabortion>

[Accessed 28 January 2017].

The Family Planning Association, 1993. Abortion in Sri Lanka; Public Attitudes, Client Profile and Some Related Aspects, Colombo: The Family Planning Association.

WHO, 2007. Global and Regional Estimates of the Incidence of Unsafe Abortion and Associated Mortality in 2003, Geneva: World Health Organization.

World Health Organization , 2019. Sexual and Reproductive Heath Definitions. [Online]

Available at: <http://www.euro.who.int/en/health-topics/Life-stages/sexual-and-reproductive-health/news/news/2011/06/sexual-health-throughout-life/definition>

[Accessed 2019 October 29].

World Health Organization, 2015. Health for World's Adolescents. [Online]

Available at: <http://apps.who.int/adolescent/second-decade/section2/page1/recognizing-adolescence.html>

[Accessed 2019 October 29].

Glimpse of Sexual Health Services and Research Needs in Sri Lanka

Kapila Ranasinghe and Gayani Siriwardena



Kapila Ranasinghe completed his undergraduate medical education with first class honours from the University of Peradeniya. He successfully completed the post graduate examination MD (Psychiatry) with honor, topping the batch. He completed the MD Psychiatry Part 2 examination as well coming first in the merit category. Dr. Kapila Ranasinghe was awarded the Board Certification as a consultant Psychiatrist by the Post Graduate Institute of Medicine, University of Colombo in 2005. He was offered further training by the Royal College of Psychiatrists. He had training as a Specialist Registrar in old age psychiatry in the Greenwich Community Mental Health team, Oxleas NHS trust and at the South brook Community Mental Health Centre, South London and Maudsly NHS trust. Dr.Kapila received accredited training in Couple and Sex Therapy at the Maudsly Hospital, London for two years.He assumed duties as a consultant Psychiatrist at the Mental Hospital Angoda and established an Old Age Psychiatry Unit at the NIMH and developed a special interest psychosexual clinic at the NHSL. He is a post graduate trainer for the P.G.I.M. and held the

post of Secretary of the Board of Study in Psychiatry. Dr.Kapila Ranasinghe has been delivering post graduate lectures to Psychiatry, geriatric medicine, Gyne and obs, Veneriology and Community medicine post graduate students and also has been a trainer cum visiting examiner to the Colombo medical faculty, Ragama medical faculty and Sri Jayawardanapura medical faculty. He has many international and national publications to his credit with a few communications to recognised local journals and has published books on Mental Health Issues of Adults and Old Age, Understanding Dementia and Basics of Human Sexuality in the local language. He has published articles in newspapers for more than 15 years about reducing the stigma associated with psychiatric illnesses and imparting knowledge to the general public.

Introduction to Sexual Health

Sexual health is a state of life-span wellbeing related to sexuality. It can be defined as a state of physical, mental and social well-being in relation to sexuality; it is not merely an absence of disease, dysfunction or infirmity in relation to sex. (1)

Sexual health requires a positive and respectful approach to sexuality and sexual relationships. It is the ability to embrace and enjoy one's sexuality. Sexuality is a broader concept which encompasses not only the biological sex of an individual but also the gender identities and roles, sexual orientation, beliefs, attitudes, values, behaviours and practices related to sex. It is influenced by the interaction of biological, psychological, and social factors.

In the Sri Lankan setting; consensus amongst the general public regarding sexual health involves only the prevention of sexually transmitted diseases and unplanned pregnancies, however it actually is a wider concept with multiple dimensions. These include having access to information, education and care for sex related issues, ensuring safe sex practices, reproductive health, family planning, prevention of sexually transmitted diseases, prevention of sexual

violence and prevention of stigmatization and discrimination towards marginalized populations such as HIV infected individuals and LGBTQ population.

In order to attain and maintain sexual health, it is important to ensure pleasurable and safe sexual experiences and sexual relationships free of coercion, discrimination or violence. Safeguarding sexual rights of all persons is mandatory in this regard. (1)

Determinants and Current Status of Sexual Health in Sri Lanka

Various social, cultural, religious, economical and legal factors act as determinants for sexual health in any society.

WHO has adopted a broader context to sexual health and has identified several social determinants of sexual health. (2)

The factors outlined are:

- (i) Law, policies and human rights
- (ii) Education
- (iii) Society and culture
- (iv) Economics
- (v) Health systems

Sri Lankan society is generally conservative about sex and is ambivalent about openly

exploring sex related concerns.

The barriers to sexual well-being in a Sri Lankan setting include limited awareness of available educational and clinical services, social backwardness related to individual empowerment and choices for safe and pleasurable sexual practices, religious and cultural beliefs, self-imposed moral standards, economic constraints and social stigma. These barriers have affected the ability to optimally experience safe sex, satisfaction, and intimacy as well as the opportunities to freely communicate about sexual health with others, including sexual partners and healthcare providers. Lack of awareness of safe sex practices is related to HIV and other sexually transmitted diseases. The male domination in sexual relationships has compromised women in openly discussing their concerns and seeking help for sex related health issues. Gender based sexual violence against women is commonly seen at domestic as well as in community settings, but is not openly discussed due to the stigma attached.

Exploitation of the uneducated general public by traditional healers who also propagate sexual misconceptions and misinformation for financial gains is another major hindrance to optimally addressing sexual health issues. There are many instances where people resort to these unscientific treatment options for conditions such as premature ejaculation, erectile dysfunction, sexually transmitted diseases and subfertility.

The above mentioned cultural ambivalence and conservatism has also affected formulation and implementation of policies at national level. Lack of a proper system for sex education in schools is a good example in this regard. Parents as well as teachers are not sufficiently armoured to discuss about sexuality and address sexual health related issues with the younger generation especially teenagers. (3) This has led to increased numbers of teens acquiring sexually transmitted diseases and

having unwanted pregnancies.

The Sri Lankan legal system is insensitive to humanitarian issues such as transsexualism, homosexuality and termination of pregnancies. Criminalization of homosexuality under the Sri Lankan Penal Code (section 365 and 365A) has led to stigma, discrimination and violence against sexual minorities such as homosexuals and transgender individuals which has affected their physical, psychological and social wellbeing to a great extent. A descriptive study conducted at the outpatient psychiatry clinic at the National Hospital of Sri Lanka for transgender individuals has revealed that 23.9% and 16.4% of the participants were experiencing anxiety and depressive symptoms respectively. (4) Rejection by family and society, limitation of career opportunities and deprivation of other privileges were the main socio-cultural issues faced by these individuals. (4)

Abortion is legally permitted in Sri Lanka only if it is performed to save the mother's life. The Sri Lankan law does not permit termination of pregnancy even in instances such as rape, incest, and foetal abnormalities. This can be considered as a major violation of individual rights which affects physical as well as the psychological wellbeing of the affected woman. As a result, there is also a high prevalence of maternal deaths due to termination of pregnancies attempted by unqualified personnel. Knowledge and attitudes towards induced abortion in the society are key issues influencing the policy response towards changes in the law. A study conducted in six Grama Niladhari Divisions among 743 residents between 19 to 49 years of age, with the aim of assessing the knowledge and attitudes of adults towards induced abortion has revealed that a majority agreed to legalize abortion for rape (65%), incest (55%) and pregnancies with lethal fetal abnormalities (53%). (5) Less than one tenth of respondents agreed to legalize induced abortion for other reasons such as contraceptive failure (6%),

bad economic conditions (7%), on request (4%), etc. (5) This study highlights the fact that although society rejects abortion on request / demand and for most other reasons, majority are in favor of and accept provision of abortions specifically for rape, incest and fetuses with lethal abnormalities.

Sexual Health Services in Sri Lanka

Despite the above mentioned barriers, a variety of governmental and non-governmental organizations as well as voluntary organizations offer a wide range of sexual and reproductive health services with the aim of promoting sexual health in Sri Lanka.

The National STD/AIDS Control Programme (NSACP) under the Ministry of Health, Sri Lanka leads the national response to control sexually transmitted diseases and HIV/AIDS and to promote sexual health indices in Sri Lanka. It conducts a well-organized programme with both preventive and curative services. Apart from management and care of sexually transmitted infections/ HIV/AIDS, it is also involved in policy development, STD surveillance, behaviour change communication, counselling, laboratory support, prevention of mother to child transmission of HIV, training of health care workers and sexual health research.

Whilst the Central STD clinic under the line ministry functions as the main body, there are peripheral STD clinics functioning at Teaching, General and Base Hospitals manned by Consultant Venereologists and trained medical officers. Screening for STIs and conducting educational programmes as well as strategies such as offering condoms for high risk populations such as female sex workers, transgender individuals, men having sex with men, individuals involved in tourism industry, night club and spa employees are the main preventive measures adopted in view of controlling transmission of STIs/HIV. Other programmes include health education programmes for school children, university students and antenatal mothers. Offering

family planning services and treatment for sexual health concerns such as sexual dysfunction are the other services provided at these clinics.

The other main governmental body providing sexual health services to the general public is the Public Health Sector of the Ministry of Health. It consists of Medical Officers of Health, Public Health Nursing Officers and Public Health Midwives attached to each MOH office. Sexual health services such as family planning services for eligible couples, offering maternal and reproductive health services in the community, screening for STIs/HIV in all pregnant women, conducting well women clinics for early identification of conditions such as breast and cervical cancer are amongst many of the services provided.

The Family Health Bureau also provides some sexual and reproductive health services through its Reproductive Health Centre. There is an information service on family planning, subfertility, screening for cervical cancer and other related reproductive health services open for the general public as well as the health care workers. It also conducts a Well Women Clinic and several Family Planning Clinics.

Psychiatry clinics and mental health clinics which operate under the directorate of mental health provides services for sexual dysfunctions, sexual deviations and psychosocial issues seen among the LGBTQ community. Clinics at the OPD of NHSL and Peradeniya Hospital are capable of providing highly specialized care to the transgender community of Sri Lanka.

Amongst the non-governmental organizations involved in sexual health promotion, The Family Planning Association of Sri Lanka (FPASL) is the pioneering organization working hand in hand with mainstream health services with the goal of providing quality and affordable reproductive health services and advocating for sexual health rights for all individuals.

Health education, offering contraceptive services irrespective of marital status, offering screening tests for sexually transmitted diseases, pre and post-test counselling whilst maintaining confidentiality, referral for treatment for STIs, conducting breast checks and pap smears, gynaecology and subfertility services are some of the main services offered by the FPA. The sexual health clinic of the FPA provides services to individuals suffering with conditions such as impotence, premature ejaculation, loss of libido and vaginismus. The FPA also offers counselling for men, women and children affected by sexual and gender based violence, with subsequent referrals for legal advices and medical treatment if needed.

The Youth Technical Advisory Committee of FPA Sri Lanka consists of a group of young people volunteering to improve the health of youth in Sri Lanka. It engages in voluntary activities to promote sexual and reproductive health of young people and networks with other organizations to advocate for issues such as HIV and gender -based violence.

Voluntary non-profit organizations such as Lanka Plus, People Living with HIV (PLHIV) and EQUAL GROUND play an important role in addressing various sensitive issues including sexual health issues encountered by marginalized populations such as individuals infected with HIV and the LGBTQ community. These voluntary organizations provide a friendly platform where the affected individuals are given the opportunity to share their experiences and to empower each other. Services provided by these organizations include counselling, referral for treatment, awareness creation amongst general public, financial support for health needs, supporting family members, and support for other areas such as employment, education and legal aid. These organizations work in collaboration with the governmental and non-governmental organizations mentioned above to prevent discrimination and to ensure equal rights of the affected groups.

Sexual Health Research

Studying sexuality and sexual health in the community poses several practical challenges; hence it is a poorly studied area. Identifying core areas to be investigated, developing sensitive and effective study tools, difficulties in recruiting study participants due to stigma, cultural influences, limited research expertise on the area and limited sources of funding are the major difficulties encountered.

When identifying core areas to be researched, it is a prudent approach to be guided by the prevailing sexual health priorities of the community. Studies designed to measure sexual health indicators at a given time period may provide important insights in to the current sexual health status of the community. Another interesting and important area to be studied is the status of the service delivery systems in terms of availability, accessibility, affordability and consumer satisfaction.

To effectively study sexual health in a particular community, the researchers should be able to understand the socio-cultural milieu of the community being studied and to understand the extent to which that influences the sexual behaviors and the health status of the community. The researchers should acknowledge the diverse range of sexual norms, values, and behaviors of particular communities in their socio-cultural-religious-economic context.

Community-based participatory research (CBPR) is an approach to research which involves community members, organizational representatives, and researchers in all aspects of the research process, so that the study participants themselves may act as active research partners and provide guidance on issues related to participant recruitment, question development, and data collection strategies. (6) This holistic approach appears to be effective especially for sexual health researches involving specific study groups such as transgender individuals, men having

sex with men and female sex workers etc. as it helps to capture a live experience expression of the sexual behaviors and values of the target group. Such insights may be particularly beneficial during the process of developing

research questions in the most sensitive and relevant manner and ensuring that the purpose of the study is consistent with the concerns and needs of the community of interest.

References

1. Defining sexual health: Report of a technical consultation on sexual health. Geneva: WHO; 2006. World Health Organization.
2. Social determinants of sexual and reproductive health: Informing future research and programme implementation. Geneva: WHO; 2010. World Health Organization
3. Godamunne P.K.S. Sri Lankan parents' attitudes towards adolescent reproductive and sexual health education needs: A qualitative study. A Collection of Research Papers on Adolescent Sexual and Reproductive Health ; 2008
4. Ranasinghe K, Siriwardena G.R., Jayasooriya H.T.T.M., Gunathilake I.A.G.M.P., Rajakaruna C. Prevalence of psycho-social issues among individuals with gender dysphoria, who are attending a psychiatry clinic at National Hospital of Sri Lanka;2018
5. Suranga, M. S., Silva, K. T., & Senanayake, L. (2017). Access to information and attitudes towards induced abortion: a community based study among adults in the City of Colombo, Sri Lanka. *Journal of the College of Community Physicians of Sri Lanka*, 28.
6. Wright L.A. Lessons learned from community-based participatory research: establishing a partnership to support lesbian, gay, bisexual and transgender ageing in place. *Family Practice*, Volume 34, Issue 3, 1 June 2017, Pages 330–335

Unbalanced Sex Ratio and its Impact on Sexual and Reproductive Health Issues: Evidence from War-affected Northern and Eastern Provinces of Sri Lanka

Kalinga Tudor Silva



Kalinga Tudor Silva holds a BA from the University of Peradeniya and PhD from Monash University, Australia. He served as the Executive Director of the Centre for Poverty Analysis (CEPA) from 2001 to 2002, Executive Director of the International Center for Ethnic Studies (ICES) from 2007 to 2008, and Director Research ICES Kandy from 2016 to 2018. He is Professor Emeritus at University of Peradeniya where he served the Department of Sociology and the Faculty of Arts in various capacities for almost 40 years. He served as the Secretary General of the Asia Pacific Network in Social Science and Health (APNET) from 2000 to 2002. Currently he works as the Resident Director of the Intercollegiate Sri Lanka Education (ISLE) Program. He is the author of "Decolonization, Development and Disease: A Social History of Malaria in Sri Lanka" published in 2014 by Orient Blackswan and a joint author of Checkpoint, Temple, Church and Mosque: a Collaborative Ethnography of War and Peace.

Published by Pluto Press in 2015.

The civil war produced a number of important demographic shifts and alterations in Sri Lanka, particularly in the war-affected regions, from 1983 until 2009¹. So far a systematic exploration of these demographic shifts has not been undertaken partly due to the paucity of relevant data. During the war population census could not be conducted in several regions affected by the war due to security concerns and active opposition to official census taking by the LTTE. In 2011 an Enumeration of Vital Events was conducted by DCS in the Northern Province with the specific objective of assessing the demographic impact of the war, but its results are somewhat suspect due to possible reporting errors and its problematic move to assess war-related mortality through recalls by surviving population. The data gaps have been partly overcome by the release of 2012 population census data covering the whole country. However, a systematic comparative review or post-war census data with pre-war census data is yet to be undertaken.

The demographic impact of the war is of multiple kinds. They range from the direct impact of the war on mortality, war-induced disability, population displacement as well as a range of indirect impacts such as family

breakdown, female-headed households, breakdown of livelihoods and differential impact by population categories such as social class, ethnicity, gender and age groups. This essay, however, has a more limited objective of determining the impact of the war on sex ratio in the surviving population and related sexual and reproductive health issues. This is done by comparing the population profiles in 1981 and 2012 censuses for selected districts in Northern and Eastern Provinces. Further, the results of Focus Group Discussions with selected population groups conducted as part of a strategic social assessment undertaken by the International Centre for Ethnic Studies for the World Bank in 2018 are used to assess social, economic and reproductive health impact of an unbalanced sex ratio understood as a demographic outcome of the war².

Changes in the Sex Ratio in Northern and Eastern Provinces during the War

The population composition in the Northern and Eastern Provinces changed from a male surplus to male deficit between 1981 and 2012. This change is evident in Table 1.

1. The author wishes to thank Prof. Dennis McGilvray, Dr. Dhammika Herath, Mr. S. Sivakanthan, Dr. Anna C. O'Donnell and Dr. M.G.M. Razaak for their comments on an earlier version of this paper.

2. For a more complete analysis of the methodology used and the results see. K. T. Silva, Sex Ratio and Vulnerability in Northern and Eastern Provinces in Sri Lanka. Colombo: ICES in collaboration with the World Bank Group, 2018.

Table 1: Male-Female Composition of the Population, Northern and Eastern Provinces, 1981 and 2012

Year	Male	Female	Total	Sex Ratio in NEPs	Sri Lanka as a whole
1981	1,071,492	1,013, 163	2,084,655	105.8	104.0
2012	1,273,260	1,353,565	2,626,825	94.1	93.8

Source: Department of Census and Statistics, 1981 and 2012

The male deficit in the population, however, is not unique to NEPs as a broadly similar pattern is evident in the country as a whole. The factors responsible, however, may be different with higher life expectancy among females and some related factors contributing to the unbalanced sex ratio in the country as a whole

and male excess among war related mortality and out migration from the provinces and the country perhaps playing a relatively more important role in NEP population. In any case a disaggregated analysis is necessary in order to understand inter-district variation in the sex ratio.

Table 2: Number of Males and Females and Sex Ratios in Districts in NEPs (2012)

District	No of males	No of females	Sex Ratio
NORTHERN PROVINCE			
Jaffna	274,173	309,709	88.5
Kilinochchi	55,783	57,727	96.6
Mulaitivu	46,036	46,202	99.6
Vavuniya	84,715	87,400	96.9
Mannar	50,053	49,517	101.1
EASTERN PROVINCE			
Trincomalee	187,472	192,069	97.6
Batticaloa	250,676	275,891	90.8
Ampara	314,352	335,050	93.8

Source: Department of Census and Statistics, 2012

Thus there are significant differences in the sex ratio among different districts in NEPs with Jaffna district reporting the lowest sex ratio in the entire country (88.5 males to every 100 females), followed by Batticaloa and Ampara. Five of the eight districts have higher than average sex ratio in the country with the Mannar district actually reporting a higher presence of males (101 males to every 100 females) compared to females in the population. Thus it has to be stressed that there is no uniform pattern in sex ratio change across all districts in NEPs.

This, in turn, points to the need to understand other factors implicated in the sex ratio besides

the war impact itself. The male out migration appears to have been an important factor in the Jaffna district even before the war, with the district reporting a sex ratio of 98.8 in 1981. The war appears to have contributed to intensify this tendency further due to a combined effect of higher male mortality related to the war which also induced further out migration of males particularly in more affluent families with external contacts leading the way. The unbalanced sex ratio in Batticaloa and Ampara districts may be a combined effect of the war, tsunami and selective out migration of males at least in well-educated families³. It also must be mentioned here that more than in any other district, the war was a three way conflict

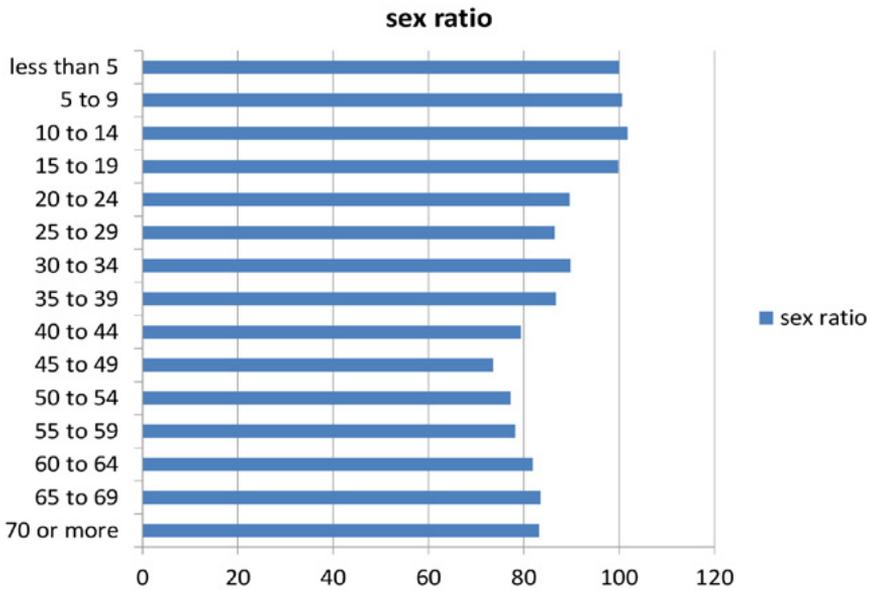
3. As is generally established in the literature, the war often resulted in excess male mortality while tsunami had the opposite effect in causing higher mortality among women and children (Silva 2009, 2016).

in the Ampara district, with the relatively impoverished Tamil villages being specially targeted for its recruitment by the LTTE and STF operations particularly targeting such villages, LTTE attacks on Muslim targets and Sinhala border villages and population displacements affecting all three ethnic communities from time to time (McGilvray 2008, Jonathan et al. 2015, Lawrence 1997).

Variation in Age Specific Sex Ratio

In this essay, we examine variation in age specific sex ratio in the Jaffna District, as it captures the overall pattern in war affected districts in general⁴.

Figure 1: Age-Specific Sex Ratios in the Jaffna District, 2012



Source: 2012 Population Census

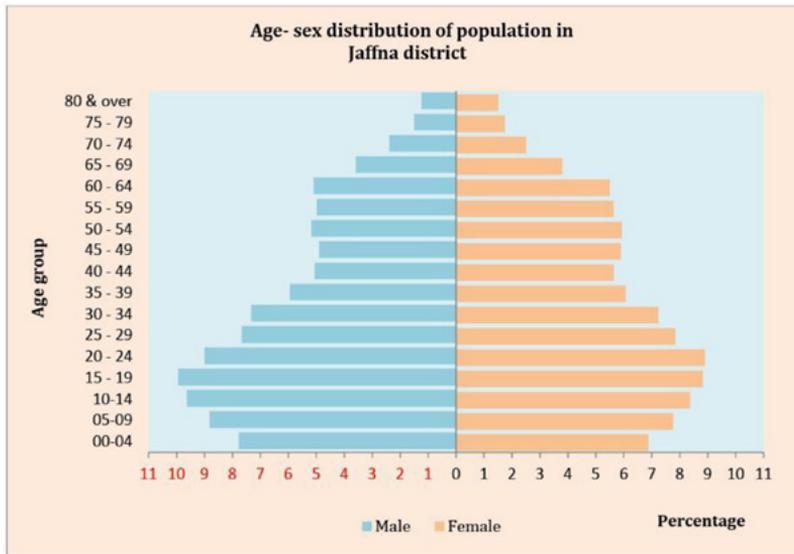
There is a marginal excess of males in the 10-14-year-old age bracket, followed by a progressive decline in sex ratios up to 45-49 years of age, with the exception of the 30-34-year-old age group. The sex ratio tends to increase slightly among the older age groups, but it remains significantly below 100, even in the oldest groups. This indicates that the progressive loss of males in the population occurred among those aged 15 to 49—politically, economically, and militarily active ages of the life cycle. The male deficit is reduced among the older age groups, who were less likely to have been killed during combat operations, but the female surplus remains consistent due to a

higher life expectancy among females, which is broadly applicable to the general Sri Lankan population.

As further evident in Figure 1, the male deficit actually begins in the 20-24-year-old group—those who were likely attending school during the last phase of the war, between 2006 and 2009. The male deficit peaks in the 45-49 age group, with a small but steady increase in the sex ratio of subsequent age groups. Apart from war-related deaths and disappearances, the selective out migration of males is more likely to affect skilled individuals with outside contacts in the 25 to 49-year-old age group.

4. For a detailed analysis of age specific sex ratios in all 8 districts in NEPs see Silva (2018).

Figure 2: Population Distribution in the Jaffna District by Age and Sex, 2012



Source: Department of Census and Statistics, 2012

The population distribution of the Jaffna district clearly deviates from the pyramidal shape expected of a normal population distribution by age and sex. It has a bimodal shape with a population bulge from age 15 to 19 years, and a notable break in the population size from age 20 to 44. The population size marginally increases thereafter until a natural pattern of increased mortality sets in from age

65 onwards. The dip in population size from 20 years to 44 years can be seen as a cumulative outcome of war-related deaths, disappearances and outmigrations as described earlier. There is a pattern of male surplus in the population up to age 20 and a progressive reversal of the pattern thereafter. This can be attributed to possible gender gaps in war-related population decline and life expectancy.

Inter Ethnic Variation in Sex Ratio in Selected Districts.

Table 3: Sex Ratio by Ethnicity, Jaffna District, 2012

Ethnicity	% of the Total Population	Sex Ratio
Tamil	99.2	88.2
Sinhala	0.4	247.6
Muslim	0.4	101.3
Other	0.1	63.5
Total	100.0	88.5

Source: Department of Census and Statistics, 2012

Inter ethnic variation in sex ratio in the Jaffna District is substantial. It varies from a high of 247.6 among the Sinhalese, who comprise a mere 0.4% of the total district population, to a low of 63.5 among smaller ethnic groups

inclusive of Burghers, Malays, and Sri Lanka Chettis whose numbers are too small to influence the overall trends. The Tamils⁵ who comprise 99.2% of the district population have a sex ratio of 88.2, while the Muslims, a small

5. We have merged Sri Lanka Tamils and Indian Tamils for the analysis pursued here due to a reported tendency among Indian-origin Tamils in the Northern and Eastern Provinces to declare themselves as ‘Sri Lanka Tamils’ during census enumerations (Bass 2007, 2013) and a reported targeting of Indian-origin Tamils in these districts in LTTE recruitment drives that probably made them equally or more vulnerable to the demographic impact of the war (Muthulingam 2017).

minority in the district population, tend to have the least imbalanced sex ratio. The war-related decline in male population is most pronounced among Tamils and in some of the smallest ethnic communities in the district. This is clearly an outcome of male surplus in war related mortality and out migration. The

substantial male surplus in the small Sinhala population and marginally higher presence of males in the Muslim population deviating from the overall district pattern may be attributed to a male selection in the in-migration of these communities following the end of the war.

Table 4: Sex Ratio by Ethnicity, Mannar District, 2012

Ethnicity	% of the Total Population	Sex Ratio
Tamil	84.5	97.4
Sinhala	2.3	473.3
Muslim	16.5	103.7
Other		---
Total	100.0	101.1

Source: *Population Census, 2012*

Thus, in Mannar District too, there is a significant difference in the sex ratio between Tamils and the two other ethnic groups. While Tamils have an overall deficit in male population, the pattern is reversed among Sinhalese and Muslims, with Sinhalese having a significant excess in male population and

Muslims reporting a marginal excess in male population. The male excess in the Sinhala and, to a lesser extent, in the Muslim population in the district may be due to the male selection in the process of in-migration into the formerly war-affected districts particularly among war-displaced Sinhalese and Muslims.

Table 5: Sex Ratio by Ethnicity, Batticaloa District, 2012

Ethnicity	% of the Total Population	Sex Ratio
Tamil	72.7	89.8
Sinhala	1.3	196.4
Muslim	25.4	90.4
Other	0.6	93.5
Total	100.0	90.8

Source: *Population Census, 2012*

In the Batticaloa district too, the lowest sex ratio was among the Tamils, followed by Muslims and others and the smaller Sinhalese population reporting almost two men for every one woman. Once again male selected in-migration among war displaced Sinhalese in the Sinhala border villages following the end of war must be understood as the cause of significantly higher male presence in the Sinhala population.

of males, while the opposite is true of the unbalanced sex ratio among Sinhalese and, to a lesser extent, Muslims. In the latter two groups female deficit appears to be a major concern among the newly settled Muslims in places such as Pesali in Mannar, and newly settled Sinhalese in Varikuttur in Vavuniya, with females opting to stay back in the places to which they were displaced during the war, with elderly males often returning to the original villages to reclaim their ancestral land and access relief and rehabilitation services offered by the state in some instances⁶. From

In summary, the unbalanced sex ratio among the Tamils in NEPs invariably refers to deficit

6. For a detailed ethnographic description of this phenomenon in a resettled Sinhala community in Vavuniya district see Weerakoon (2012).

a development and community rehabilitation angle, these two types of imbalances in sex ratio pose different challenges for recovery and social stabilization.

Social, Economic and Reproductive and Sexual Health Concerns

A number of problems related to male deficit came up in FGDs in Tamil communities. They included higher unemployment among women, a significant wage gap between men and women with average daily wage for casual employment for men being twice as high as daily wage for women for similar employment, unusually high rate of female-headed households with women having to earn livelihoods while also taking care of household duties, young women experiencing difficulties in finding marriage partners particularly due to a significant male deficit in the relevant age groups, heightened concern for security due to heavy military presence on the one hand and lack of males in civilian populations in particular and a reported upsurge in extra-marital relations. This is indeed an important sexual health issue as well as a factor in domestic violence and marital instability as also pointed by Herath (2018) and Tambiah (2004). As revealed in FGDs, a high proportion of women in war-affected Tamil families in particular remained widowed, separated or unmarried. It is clearly evident from data on age specific sex ratio presented earlier, that unbalanced sex ratios are particularly relevant in the reproductive age groups with gaps in male-female present age in the 20 to 50 age group. All of these have important implications for reproductive and sexual health in the affected population groups.

On the other hand, resettled Sinhala and Muslim communities tend to be divided between the new settlements and locations to which they had been displaced during the war with elderly males opting to move back

to the original land and/or new settlement land while women and children opting to stay back in displaced locations where services have already been established, children attend better schools, some adults have secured employment in security forces and elsewhere. There are also frequent movements back and forth, adding to the unsettled social, community and household characteristics in both locations⁷. The reproductive and sexual health impact of this pattern in Sinhala and Muslim resettlements is unclear, but lack of women, youth and children was often mentioned as a serious concern about the stabilization and population succession in these communities. A severe labor scarcity due to lack of working age men and women in the relevant new settlements have hampered livelihood development particularly in agriculture. In some ways both affected new settlements and displaced communities remain underdeveloped at least partly due to population imbalances⁸. All of these changes have important implications for future demographic trends in NEPs.

It is likely that the prevailing imbalances in the sex ratio among the war survivors will take a number of generations to naturally re-stabilize. Policy makers, development workers, civil society organizations, and even the private sector must take this as a “frame condition,” within which economic initiatives, development interventions, psychosocial programs, and security regimes must be introduced. At the same time, under the current circumstances, there may be an unprecedented opportunity to alter unequal gender relations that have evolved through cultural processes over a long period of time. As evident from this detailed analysis of gender composition in 8 districts in North and East, women now constitute a majority of the population and voters in Tamil communities. They have the demographic capacity to influence governance and (by implication) state policies in their favor. Despite

7. For ethnographic accounts of this unsettled social life of ‘neither here nor there’ existence see Brun (2008) and Thiranagama (2011).

8. For details, See Silva (2018).

the potential strategic leverage this situation holds for women's empowerment (as identified in some of emerging feminist literature), this outcome has not yet materialized (Sarvananthan, Jeyapraba, and Alagarajah 2017, Samuel and Kodikara 2010, Ruwanpura and Humphries 2004, Tambiah 2004, Kottegoda 1996). It is no coincidence that in the Northern Province and parts of the Eastern province, women have risen to important positions in civil administration⁹, as well as in local government and campaigns for civil rights. Yet, the development of this apparently healthy trend has been inhibited by male-dominant political processes across the entire spectrum of governance, as well as rising trends in indebtedness, domestic violence, alcoholism, family breakdown, desertions of wives by their wayward husbands, and a marked leadership deficit in community activities. While this is by no means the only strategic social issue that requires policy and programme attention, it is certainly an important one that has a bearing on overall underdevelopment of the region.

Considering the situation of women headed households and war-induced widows in NEP, widowed women find it difficult to marry again because of number of factors: there is community pressure against widow remarriage in the case of women; the fear that children may encounter maltreatment or abuse on the part of a new father; the limitation of potential male partners who are marriageable in the light of unbalanced sex ratio and restrictions on marriage outside ethnicity and caste. This situation, however, does not alleviate the possibility of illicit affairs, sexual harassment or sexual abuse (Tambiah 2004).

References

Bass, D. 2013. *Everyday Ethnicity in Sri Lanka: Upcountry Tamil Identity Politics*. London: Routledge.

Bass, D. 2007. 'Making Sense of the Census in Sri Lanka,' in R. Cheran (ed.), *Writing Tamil Nationalism*, pp. 304-319. Colombo: ICES.

These circumstances often give rise to a forced bachelor situation among women adding to their difficulties in a cultural context where unmarried women past the marriageable age are socially stigmatized.

As a result of imbalanced sex ratio, gender inequality and cultural barriers to remarriage of female widows in Tamil society in particular as well as due to the heavy presence of military, there is an upsurge in extramarital relationships, alliances and a range of consensual and coercive sexual activities as reported by Tambiah (2004), Sarvananthan, Jeyapraba and Alagarajah (2017) and Herath (2018). Unprotected extramarital sex should receive more attention than at present in prevention of unwanted pregnancies and prevention of Sexually Transmitted Diseases (STDs) and HIV/AIDS. First, unsafe extramarital sexual liaisons put the involved individual at risk for HIV/STI transmission. Second, they put the other member of the couple at risk as well. Third, extramarital sex often impacts on the quality of the couple relationship, creating difficulties in communication, sexuality, and violence that may further exacerbate extramarital sex and risk of infection (Schensul, et al., 2006). Since the STI and HIV risk behaviours are increased in these pockets, focus interventions are required to promote health seeking behaviors, including protected sexual activities and frequent testing. Further, the National Family Planning programme and related development agencies should pay special attention on these pockets to reduce the burden of unexpected pregnancies, unsafe abortions and resulting intimate partner physical and sexual violence.

9. For instance, in 2011, three of the five District Secretaries in the Northern Province were Tamil women with considerable administrative power, in spite of a number of impeding factors.

Brun, Cathrine. 2008. *Finding a Place: Local Integration and Protracted Displacement in Sri Lanka*. Colombo: Social Scientists Association.

Herath, Dhammika. 2018. 'Breakup of Community Social Structures in the War-Affected Northern and Eastern Provinces in Sri Lanka'. Background Paper No 3 to the Socio-Economic Assessment of the Conflict Affected Northern and Eastern Provinces" conducted by the World Bank. Published by International Centre for Ethnic Studies. Kandy: Sri Lanka.

Kottegoda, S. 1996. 'Female headed Households in Situations of Armed Conflict.' *Nivedini* 4 (2): 10-19.

Lawrence, Patricia. 1997. *The Changing Amman: Notes on the Injury of War in Eastern Sri Lanka, South Asia: Journal of South Asian Studies*, 20 (1): 215-236,

McGilvray, D.B. 2008. *Crucible of Conflict: Tamil and Muslim Society on the East Coast of Sri Lanka*. Durham, NC: Duke University Press.

Muthulingam, P. 2017. Migration towards the North-East and the Emerging Political Leadership among the Indian Tamils. Keynote speech, Conference on Upcountry Tamils: Charting a New Future. 2-3 August, 2017. International Centre for Ethnic Studies, Colombo.

Ruwanpura, K. & Humphries, J. 2004. 'Mundane Heroines: Conflict, Ethnicity, Gender, and Female Headship in Eastern Sri Lanka.' *Feminist Economics* 10 (2), pp. 173-205

Samuel, K. & Kodikara C. 2010. 'Women are not Willing to go back to the Pre-war Status Quo,' Groundviews. Available: <http://groundviews.org/2010/05/22/women-are-not-willing-to-go-back-to-pre-war-status-quo/>

Sarvananthan, M., Jeyapraba, S. and Alagarajah, A. 2017. Feminism, Nationalism, and Labour in Post-Civil War Northern Province of Sri Lanka. *Development in Practice* 27 (1), 122-128.

Schensul, S., Mekki-Berrada, A., K. Nastasi, B., Singh, R., A. Burleson, J., & Bojko, M. (2006). Men's Extramarital Sex, Marital Relationships and Sexual Risk in Urban Poor Communities in India.

Silva, K. T. 2018 Sex Ratio and Vulnerability in Northern and Eastern Provinces: Background Paper No 2 to the Socio-Economic Assessment of the Conflict Affected Northern and Eastern Provinces" conducted by the World Bank. Published by International Centre for Ethnic Studies, Kandy: Sri Lanka

Silva, K. T. 2016. Victimhood and agency of women during disasters: lessons from December 2004 Tsunami in Sri Lanka. *Nivedini Journal of Gender Studies* 2016 21: 1- 27.

Silva, K.T. 2009. 'Tsunami Third Wave' and the Politics of Disaster Management in Sri Lanka. *Norwegian Journal of Geography* 63 (1): 61-72.

Spencer, Jonathan et al. 2015. *Checkpoint, Temple, Church and Mosque*. London: Pluto Press.

Tambiah, Y. 2004. Sexuality and Women's Rights in Armed Conflict in Sri Lanka. *Reproductive Health Matters* 12 (23):78-87.

Thiranagama, Sharika. 2011. *In My Mother's House: Civil War in Sri Lanka*. Philadelphia: University of Pennsylvania Press.

Weerakoon, Upali. 2012. *The Role of Kinship in Resettlement of Sinhala IDP Communities in Sri Lanka*. Unpublished PhD thesis, University of Peradeniya.

Sexually Transmitted Infections and HIV in Sri Lanka

Ajith Karawita



Dr Ajith Karawita is a consultant Venereologist currently working in the Ministry of Health Sri Lanka. His areas of expertise include sexually transmitted infections, HIV medicine, sexual health and their prevention and program sciences. He holds MBBS (University of Peradeniya), post graduate diploma and MD in Venereology (University of Colombo). He is a Fellow and the past president (2015-2016) of Sri Lanka College of Sexual Health and HIV Medicine. Further, he is a visiting lecturer of the Rajarata University of Sri Lanka and Postgraduate Institute of Medicine, University of Colombo.

Introduction and Background

Sexually transmitted infections (STI) are infections that are caused by emerging, re-emerging and evolving group of pathogens that are transmitted predominantly by sexual contact. With the advancement of microbiological sciences, more organisms and different subtypes have been uncovered. In the current context, the STIs that are generally curable with effective antibiotics are the three bacterial STIs, Syphilis, Gonorrhoea, Chlamydia and one parasitic STI, Trichomoniasis while non-curable STIs include HIV, Herpes simplex, Human papilloma virus and Hepatitis B.

Manifestations of STIs are not commonly found as symptomatic diseases, because majority of infections are asymptomatic or subclinical. Furthermore, wide use of antibiotics, early detection and treatment have reduced the symptomatic nature of STIs. However, manifestations of viral STIs gradually predominate in the foreground, because of its non-curable nature.

Sri Lanka is an island country (65,610 km²) with an estimated mid-year population of 21.4 million (2017) with a population growth of 1.1%. (Department of census and statistics, 2018)¹ Sri Lanka is a multi-lingual and multi-cultural country. The human development index (HDI) of Sri Lanka was 0.766 (2015). Average life expectancy was 75 years and literacy rate was 93.1% in 2016. (Central bank of Sri Lanka, 2018) Sri Lanka has 9 administrative provinces and 25 districts.

The National STD/AIDS Control Programme (NSACP), Ministry of Health spearheads the STI control including HIV in the country. NSACP headquarters links with 33 full-time clinics and 23 branch STD clinics. This network of government STD clinics provide prevention, treatment and care services for STIs including HIV. In addition, the non-governmental partners are also providing services through different external monetary assistance especially for HIV and STI prevention, treatment and care. The Global Fund (Direct funding and regional grants), WHO, Family Health International (FHI), CDC are currently providing technical and funding support to scale up and maintain a considerable level of prevention, treatment and care services for HIV and STIs. Strategic Information Management (SIM) Unit of the NSACP links with multiple service providers for the monitoring and evaluation of national programmes.

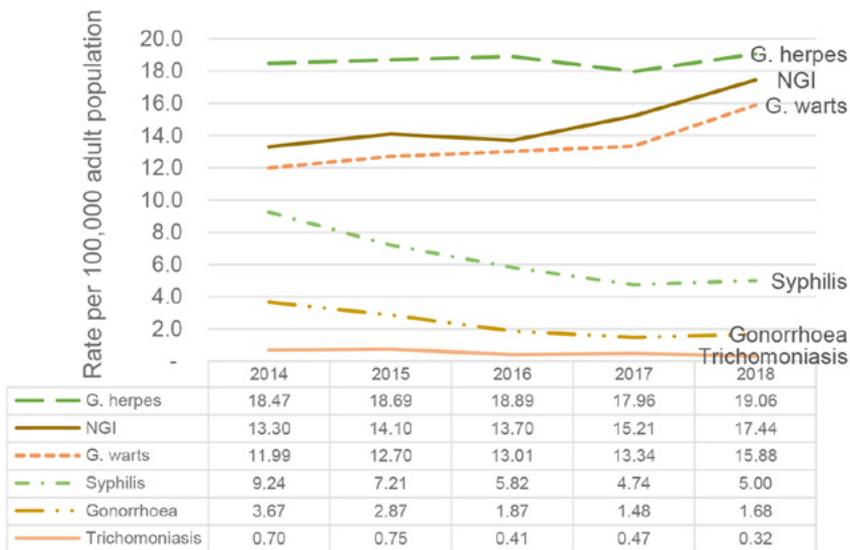
Common STDs reported to the NSACP during 2018 is depicted in the following graph. STI rates per 100,000 adult populations (15+ years) is shown in the Graph by year. It shows that Genital Herpes, Non gonococcal inflammations and Genital Warts reported as relatively common STDs while Syphilis, Gonorrhoea and Trichomoniasis were reported as uncommon diseases.

The estimated number of people living with HIV (PLHIV) as of end 2018 is 3500. This is a slight reduction from the 2016 estimation figure of 4000. Total PLHIV diagnosed and alive are 2391. Cumulative number of people reported

with HIV up to end of 2018 was 3192, the first case was reported in 1987. (NSACP, 2018)

of key populations and undergraduates and postgraduates in the relevant fields.

Graph: Reported cases of STIs per 100,000 populations by year, Sri Lanka



Source: Annual Report of the National STD/AIDS Control Programme 2017 (NSACP, 2018)

Current Status

The multiple fields of research and surveillance on HIV and other sexually transmitted infections escalated and is being increasingly funded over the last 4 decades with the emergence of HIV pandemic in the world. In parallel with the global trend, Sri Lanka also started HIV sero-surveillance before the first Sri Lankan case of HIV was identified in 1987. (NSACP, 2019) Currently, the research and surveillance are focused mainly to control and reverse the epidemic of HIV and to provide effective treatment and care services. In the early phase, most of the HIV and STI related information was generated through HIV and STI case surveillance and syphilis and HIV sero-surveys. Later, HIV sero-surveys and behavioural surveys expanded to include multiple subpopulations of increased risk. At present, bio behavioural surveillance among key population groups and periodic size estimations of key populations are being carried out as main national surveys. In addition, there are multiple ad hoc researches and surveys carried out by NGOs

Strategic Information Management (SIM) Unit of the National STD/AIDS Control Programme of the Ministry of Health is the main unit responsible to conduct national surveys with supervision of the Ministry of Health and the multi stakeholder National AIDS Committee of the country. Currently, most of the national surveys are conducted with the financial and technical support of the Global Fund. Therefore, as a country, we need to be adhered to the agenda of the Global Fund in controlling HIV and other STIs. The country is finding it difficult to provide funds for the spectrum of research opportunities of HIV and STIs, creating research gaps in some areas.

Gaps and Challenges

Although periodic updates of the national research agenda are available, funding for researches are available only for essential national surveys from the Global Fund. Thereby, leaving unattended research areas in the agenda as a result of insufficient resource allocations for research and development. It is the responsibility and challenge of the National

STD/AIDS Control Programme and stakeholders of the National AIDS Committee to find some supplementary funds to close research gaps. Key population research and interventions are mainly prioritized because of limitations of funds and resources. However, some researches on other important populations are less such as, general populations, adolescence and youth, people with multiple, parallel or serial partners. Adolescence, youth and general populations need to be considered as heterogeneous groups with different risk behaviours which cannot be segmented to traditional risk groups. Therefore, those populations should be given priority in research and behavioural surveys.

There are gaps in maintaining quality and standards of research methods because of difficulty in working with hidden and ostracized population groups for surveys on which programmatic planning is implemented. The main difficulty lies in selecting a probability sample among key populations for surveys. In most surveys it has been observed that failure in getting a representative sample results in biased results. Even the respondent driven sampling had failed in some situations creating inadequate waves not reaching equilibrium, homophily creating multiple limitations in results. Furthermore, incentive driven sampling techniques created volunteerism and false claim.

Widely applied mapping and size estimation studies are also having limitations in interpreting values due to multiple drawbacks in their methodologies. Enumeration techniques (census) are time consuming, tedious and highly expensive. While unique object methods are not quality rich because of repeated incentivized involvement of key population members. The other important observation is that new HIV infections are emerging among folks not included in the current prevention projects. The new cases reported reveals that the rural migrants with less attitudes towards protective sexual behaviours (Condom use)

probably due to information gaps or resistance for behavioural change.

Some of the disease prevalence studies that are related to management of HIV/STI among different population groups are scarce such as, Herpes simplex type 1 and type 2, types of Human papilloma virus, Toxoplasmosis, JC virus, HBV and HCV. The main challenge is the lack of laboratory facilities, expertise and monetary allocations for establishing sophisticated diagnostic techniques such as, nucleic acid testing methodologies.

Contact tracing, Defaulter tracing and other partner services in sexually transmitted infections are important areas in the control of diseases. However, due to the conflict of human rights in managing partners infected with HIV and other STIs, discourage the coverage of such services. Therefore, in the background of availability of antiretrovirals for HIV treatment, the confidential networking of partners of HIV positives are important in finding new cases with relatively low investment.

Future Directions

Future directions in research and development should be planned and implemented based on the overall objectives and national strategic directions of prevention and management of HIV and other STIs. Therefore, the national programme responsible for the management of HIV and other STIs should take a pivotal role in identifying research gaps, planning of the national research agenda and priorities.

Principles of prevention, programme sciences and research methodologies should be applied technically assuring the availability of unbiased quality research data and information on which the programmes are planned. Different population groups with local interest should be researched for risky sexual behaviours in addition to MARPs such as, people with multiple, serial or parallel partners. Inherent issues related to incentivized research sampling methods such as false claim, volunteerism, lack

of reaching equilibrium need to be minimized for quality research findings. Furthermore, local treatment guidelines should be strengthened with local research evidences.

The behavioural patterns of adolescents and young people should also be included as populations in research to understand the earliest risky behavioural changes in addition to traditional most at risk population surveys. However, the ethical clearance is an issue among adolescents especially in studies related to sexual behaviors. Therefore, special permission at the national level should be obtained to carry out behavioural surveillance among adolescents and young people.

Prevention and management of STI/HIV should be considered within the broader concept of sexual health with some sharing components of reproductive health services. Integration of these services should be considered in the country based on results of operational researches.

Age related sex education should be mainstreamed in the school curriculum to reduce stigma and discrimination related to these taboo subjects in order to increase the access and acceptance of protective behavioural modifications.

Social marketing of prevention, treatment and care services for HIV/STI should be delivered through a wide range of channels of communications based on the direction of national communication strategies. Health related information should be communicated through modern technology because of the increasing screen time of young people. The availability of these online screen mediums in local languages are equally important.

All future research directions should be carefully planned, monitored and supervised within the national research agenda of the country, in order to reduce unwanted health expenses.

Bibliography

Central bank of Sri Lanka. (2018). Economic and Social statistics of Sri Lanka. Colombo: Central Bank of Sri Lanka.

Department of census and statistics. (2018). Colombo: Department of Census and Statistics.

NSACP. (2018). Annual report 2018. Colombo: Ministry of Health.

NSACP. (2019, June 16). Publication. Retrieved from National STD/AIDS control programe, Sri Lanka: <https://www.aidscontrol.gov.lk>

Acknowledgement

Dr. K.A.M. Ariyaratna, Consultant Venereologist, Strategic Information Management unit, National STD and AIDS control programme, Sri Lanka.

Dr. Subashini Jayasuriya, Actg. Consultant Venereologist, Teaching hospital, Anuradhapura.
Sarah Sanjalee Karawita, Medical undergraduate, Wayamba University of Sri Lanka.

Section 02

Abstracts have turned into one of the most prominent scientific genres used in academia. This section features abstracts that were published in national and international journals from 2010-2019 by The Family Planning Association of Sri Lanka. These abstracts cover the significant thematic areas of Sexual and Reproductive Health and related areas. All the abstracts and research papers were published in national and international Journals or publications, as well as most of them were presented at national and international conferences.

The full articles of these abstracts can be obtained from Monitoring & Evaluation Unit of FPA Sri Lanka.

Technology (ICT) by Sri Lankans to gather information on sexual and reproductive Health (SRH)

Tissera S. , Jayasinghe I.N., Mahanama A.I.K, Nishanthan R. , Pathiratne A.S.R. , Siriwardena P.

Family Planning Association of Sri Lanka

Originally published in Sri Lanka Journal of Biomedical Informatics (2010)

Introduction: ICT can be used as a reliable source of information to provide answers for various questions regarding SRH issues in the Sri Lankan community. Keeping this in mind Family Planning Association of Sri Lanka developed 'Happy Life' contact centre.

Main objective to describe the usage of ICT by various demographic parameters in the Sri Lankan population and to identify and describe the common SRH issues present in the community.

Methodology: A descriptive cross sectional study carried out at the 'Happy Life' contact centre. All who contacted the 'HappyLife' over a period of five months were included. Interviewer administered client information sheet was used.

Results: Number of client information sheets filled – 4074. Telephone calls were main the method of gaining information- 72.82% and in 16.89% used emails, chat and skype. SMS had been used by 10.29%. 22.38% were between 19 to 25 years and 19.95% were between 26 to 32 years. 60.72% were males and 19.67% were females. 40.57% were married and 28.64% were unmarried. 27.78% had a query on family planning and 9.79% on emergency contraceptives. 4.86% had a query on premature ejaculation, 1.18% on vaginismus 3.36% on size of the penis and 2.3% on erectile dysfunction.

Conclusion: Majority used telephone calls as the method of contact. It was males and married couples who connected with 'HappyLife'. Most common age group to have issues regarding SRH problem was on family planning methods and sexuality issues together. Information

communication technology is a useful tool in providing SRH information & education in Sri Lanka

How to cite this Abstract

Tissera, S., Jayasinghe, I. N., Mahanama, A. K., Nisanthan, R., Pathiratne, A. R., & Siriwardena, P. (2010). A study to evaluate the use of Information and Communication Technology (ICT) by Sri Lankans to gather information on sexual and reproductive Health (SRH). Towards IT enabled Healthcare : eHealth Sri Lanka 2010. 1, p. 32. Battaramulla: Health Informatics Society of Sri Lanka.

Process, Determinants, and Impact of Unsafe Abortions in Sri Lanka

Neil Thalagala (MBBS, M.Sc,MD)
Medistat Research Foundation
Originally published as a booklet (2010)

Unsafe abortions pose a considerable challenge to women's health in Asian region. The Sri Lankan legal system imposes a very restrictive abortion law, which only permits an abortion to save a life of a mother. However, yet a major share of the fertility control of the country could be attributable to induced abortions.

At present an obvious policy of neglect is observed in relation to this important public health problem. The scarcity of information on abortion hinders advocacy and programme missions. This study aimed to understand the process and factors influencing unsafe abortions in Sri Lanka, with special reference to socio cultural dimensions.

In addition to describing the experiences of a sample of 665 women who had obtained unsafe abortions during the past 18 months, the sample was also compared with the fertility related characteristics of two other groups of women who never had abortions and were continuing unwanted and wanted pregnancies to a period more than 30 weeks periods of amenorrhoea. The sample was constituted to include all main ethnic groups of the country; Sinhalese, Muslims, Sri Lankan and Estate Tamils.

A majority of abortion seekers were married. The main reasons for abortions included, having conceived while having a very young baby, completed family, socio economic constraints, having conceived when grown - up children were present or having conceived at an older age. Nearly 70% of abortion seekers were not practicing a contraceptive method at the time of conception and others conceived while on contraceptives. A number of factors

were identified as risk factors for restoring to unsafe abortion or having unwanted pregnancies. Many stakeholders were found to be unaware of the gravity of the problem.

Strengthening family planning, relaxation of abortion law, raising of awareness on the prevalence and impact of unsafe abortions among general public and promotion of multi-thematic research on abortion, included some of the core recommendations.

[How to cite this Abstract](#)

Thalagala, N. (2010). Process, Determinants, and impact of Unsafe Abortions in Sri Lanka. Colombo: Family Planning Association of Sri Lanka, International Planned Parenthood Federation (SARO).

The Use of Emergency Contraception Pill (ECP) among Callers to the HappyLife (HL) Contact Centre, FPA Sri Lanka.

Tissera S, Athapaththu AMKGHN, Chandimal AVI,
Abyeratne WKDP, Sajeemala WG, Suranga S.

Family Planning Association of Sri Lanka

Abstracts of free communications - FIGo-SAFOG-SLCOG (2014)

Introduction: Emergency Contraception (EC) is used after and unprotected intercourse within a defined time limit to prevent an unplanned pregnancy. ECP was first introduced to Sri Lanka in 1998 by FPA Sri Lanka. Introduction of ECP has been revolutionary since it addresses the need of population that was unable or unwilling to use a regular method of family planning. ECP has shown a marked increase in its sales indicating its increasing use.

Objective: To evaluate the frequency of use of ECP to examine the demographic characteristics of the ECP user.

Methodology and Study Design: Descriptive cross sectional study setting: HappyLife contact centre, FPA Sri Lanka. Study Population: All callers to HL seeking information regarding ECP. Study instrument: Analysis of data collected through a survey form. Study period: 26.06.2014- 30.07.2014.

Results: All calls received during the study Period – 691, Contraceptive related calls-260 and ECP calls-92 (13.31%) of all calls and 35.38% of contraceptive related calls. Mean age of the caller 28.88 years Mean age of partner 28.89 years 49(53.3%) were males and 43 (46.7%) were females Marital status Married-70 (76.1%) Unmarried 22 (23.9%) Most callers had completed up to AL's 53 (57.36%) Most callers used no method of contraception 35 (38%). 18(19.6%) were using natural methods of contraception. Most callers were using ECP for the first time 42 (45.7%) and only 14 (15.2%) used it regularly. 12 (85.7%) of them were married. 78 (84.7%) of the callers had used ECP within 24 hours of sexual intercourse. Most called to inquire on how to use ECP 25 (21%)

and for menstrual irregularities 24 had used it 3 times or more during the last 3 months of the 92 callers 8 (8.7%) had a previous history of contraceptive failure. 4 used natural methods, 2 no method, one failure each using ECP and DMPA. But even after the failure they are still not using a reliable method.

Conclusion: With very good MCH care and free family planning services people are still resorting to unreliable methods like natural methods and ECP, especially the married and the educated. This shows that there is more to be done to educate the public on the benefits of family planning to reduce the unmet need of contraception.

[How to cite this Abstract](#)

Tissera, S., Athapaththu, A. G., Chandimal, A. I., Abeyratne, W. D., Sajeemala, W. G., & Suranga, M. S. (2014). The Use of Emergency Contraception Pill (ECP) among Callers to the HappyLife (HL) Contact Centre, FPA Sri Lanka. Sri Lanka Journal of Obstetrics & Gynaecology , 36, 16.

HIV risk behaviours and factors affecting the use of condoms among men who have sex with men (MSM) in selected districts of Sri Lanka; A baseline cross sectional survey

Senadhira SDKP¹, Suchira Suranga M¹, Rajakaruna RMDK¹,
Abeykoon A², Manathunge AKA³, Karawita DA³

1 Family Planning Association of Sri Lanka

2. Lanka Jathika Sarvodaya Shramadana Sangamaya

3 National STI/AIDS Control Programme, Sri Lanka

Originally published in Sri Lanka Journal of Venereology (2014)

Introduction: Sri Lanka has a lower prevalence of HIV among MSM (0.9%) in the region. However, the HIV prevalence among MSM has been rising steadily 0.48% in 2009 and 0.9% in 2011. Prevention of HIV transmission through the introduction of “Prevention package” under GFATM round 09 HIV project is one of the main strategies to reduce new infections in the MSM community. Prevention package includes condom awareness and knowledge, condom demonstration and distribution. This project reaches 3203 MSM with the prevention package. Therefore, this study aims to assess the condom knowledge of MSM reached by the peer educators and the factors associated with level of knowledge.

Methodology: Multistage probability sampling technique was used to select a sample of 325 MSM peers who have reached with basic HIV prevention service package were interviewed with a structured and semi structured interview schedule after receiving the oral informed-consent. Descriptive statistical analysis and non-parametric hypothesis testing were performed using the SPSS statistical software.

Results: Sample has an average of 4.2 (SD=8.42) partner changes per month. One third of the sample had over 10 years of MSM behaviours. Around 70% of respondents knew at least five out of eight condom use steps. Partner exchange rate, composite knowledge on HIV and using a condom during the last sex were associated with respondents’ knowledge on correct use of condoms.

Conclusions: Although the program has contributed significantly to increase the condom use among MSM population, effectiveness of the condom use is questionable. A comprehensive condom demonstration programme must be incorporated into the HIV prevention programs in more practical manner for effective condom programming.

Key words: correct use of condoms, Men who have sex with Men (MSM), HIV, Sri Lanka

How to cite this Abstract

Senadhira, K. P., Suranga, M. S., Rajakaruna, D. K., Abeykoon, A., Manatunga, A., & Karavita, A. (2014). HIV risk behaviours and factors affecting the use of condoms among men who have sex with men (MSM) in selected districts of Sri Lanka; A baseline cross sectional survey. *Sri Lanka Journal of Venereology*, 5(1), 35.

Knowledge and associated factors of condom use among MSM; a cross sectional study in Global Fund peer led interventions in Sri Lanka

M. Suchira Suranga¹, D. A. Karawita², N. Mudalige¹, A. Bandara¹

1 Family Planning Association of Sri Lanka

2. Teaching Hospital, Anuradhapura

Originally published in Sri Lanka Journal of Sexual Health and HIV Medicine (Sri Lanka JoSHHM) (2015)

Introduction: Sri Lanka has a lower prevalence of HIV among MSM (0.9%) in the region. However, the HIV prevalence among MSM has been rising steadily 0.48% in 2009 and 0.9% in 2011. Prevention of HIV transmission through the introduction of “Prevention package” under GFATM round 09 HIV project is one of the main strategies to reduce new infections in the MSM community. Prevention package includes condom awareness and knowledge, condom demonstration and distribution. This project reaches 3203 MSM with the prevention package. Therefore, this study aims to assess the condom knowledge of MSM reached by the peer educators and the factors associated with level of knowledge.

Methodology: Multistage probability sampling technique was used to select a sample of 325 MSM peers who have reached with basic HIV prevention service package were interviewed with a structured and semi structured interview schedule after receiving the oral informed-consent. Descriptive statistical analysis and non-parametric hypothesis testing were performed using the SPSS statistical software.

Results: Sample has an average of 4.2 (SD=8.42) partner changes per month. One third of the sample had over 10 years of MSM behaviours. Around 70% of respondents knew at least five out of eight condom use steps. Partner exchange rate, composite knowledge on HIV and using a condom during the last sex were associated with respondents’ knowledge on correct use of condoms.

Conclusions: Although the program has contributed significantly to increase the condom use among MSM population, effectiveness of the condom use is questionable. A comprehensive condom demonstration programme must be incorporated into the HIV prevention programs in more practical manner for effective condom programming.

Key words: correct use of condoms, Men who have sex with Men (MSM), HIV, Sri Lanka

How to cite this Abstract

Suranga, M. S., Karavita, A., Mudalige, N., & Bandara, A. S. (2015). Knowledge and associated factors of condom use among MSM; a cross sectional study in Global Fund peer led interventions in Sri Lanka. Sri Lanka Journal of Sexual Health and HIV Medicine, 1, 22.

Effectiveness of counselling to improve psychological well-being of the survivors of gender based violence: a clinic based study in Sri Lanka

Achini Jayatillake, Sumithra Tissera, Asanka Pathirathne, Badra Udawatte, Prasanna Jayathillake, Lakshmen Senanayake

Family Planning Association of Sri Lanka

Originally published in Journal of Injury Prevention (2015)

Statement of purpose: The Family Planning Association of Sri Lanka (FPASL) is a leading sexual and reproductive health (SRH) facility that also has a counselling centre. FPASL is screening the clients for GBV and refer identified survivors to counsellors. We evaluated the effectiveness of counselling to improve the psychological wellbeing of those referred GBV survivors.

Methods: We conducted this study between 01 January and 31 March 2013. During that period, FPASL identified 81 GBV survivors. Of them, 36 met family counsellors, and 29 presented for at least one follow-up counselling session. We compared the psychological wellbeing of those 29 at the baseline and at two months follow-up, using three Likert scales: happiness scale (range: 1 = very sad to 7 = very happy), perceived stress scale (range: 1 = no stress at all to 7 = much stressed), self-esteem scale (range: 1 = very low to 7 = very high). We also randomly interviewed 6 clients (20%) to confirm these results using qualitative Methods.

Results: Of the 29 GBV survivors who met counsellors, 51% reported physical violence, 3% reported sexual violence and all reported psychological violence. The survivors' perceived happiness was significantly higher after the counselling (Median (Mdn) = 5.0) than before counselling (Mdn = 2.0), $z = -4.7$, $p < 0.001$. The perceived self-esteem was also significantly higher after counselling (Mdn = 5.0) than before counselling (Mdn = 2.0), $z = -4.7$, $p < 0.001$. After counselling, clients felt safer than they were before (Mdn = 7 before and after, $z = -2.82$, $p < 0.001$), and felt less stressed (Mdn = 6.0 vs 2.0, $z = -4.8$, $p < 0.001$).

Conclusions: The counselling might effectively improve the short-term psychological well-being among GBV survivors. However, to draw better conclusions, future studies should examine the long-term psychological effects of counselling for GBV survivors as well.

How to cite this Abstract

Jayathillake, A., Tissera, S., Pathirathne, A., Udawatte, B., Jayathillake, P., & Senanayake, L. (2015). Effectiveness of counselling to improve psychological well-being of the survivors of gender based violence: a clinic based study in Sri Lanka. *Journal of Injury Prevention*.

Development and Pilot Testing of an Onsite Data Verification Tool for Peer Education Programmes for Men who have Sex with Men in Sri Lanka

**M.Suchira Suranga, S.M.A.S.Bandara, R.M.D.Rajakaruna,
S.D.K.P.Senadhira, M.N.Fernando, C.W.S.S.Chandrasekara**
Family Planning Association of Sri Lanka

Presented at 5th Biennial International Conference (2015)

Introduction: - GFATM round 09 project was implemented in Sri Lanka for prevention of HIV amongst most at risk populations (MARP). The project reached 6000 Men who have Sex with Men (MSM) with a basic package of HIV prevention services through MSM peer educators (PE). The entire monitoring structure of the project was primarily depended on the reports submitted by the PEs. Data quality assurance of the PE reports was one of the most challenging tasks of the project. Consequently, it was adopted an on-site data verification (OSDV) tool which focuses exclusively on assessing quality of data submitted by MSM PEs. Evaluation

Objective:- To assess the effectiveness and practical applicability of the OSDV tool for MSM PE programs in Sri Lankan context.

Methodology:- Using multi stage probability proportionate to the size sampling technique, 400 peers were selected from five of districts (Colombo, Gampaha, Kalutara, Galle and Anuradhapura). A formal structured interview schedule (the OSDV tool) was used to collect data from the respondents at their hot-spots. The interviews were conducted by the M&E professionals in a confidential environment after receiving the oral consent. The data gathered at the time of interview was cross-checked with the reported data available in the Monitoring and Evaluation Information Management System (MEIMS) using excel based data analysis tool (Data quality index).

Results:- Recruiting home based MSM was really challenging resulting a low response rate (30%-40%). However, relatively high response

rate (60%-80%) was reported for hotspot based MSM. Overall data quality varied from 55% to 81% in five districts. The highest quality gap was identified in reporting the uptake of counselling services due to possible misinterpretation of indicator definition by the PEs.

Conclusion:- This OSDV tool can be used as a reliable tool to assess the quality of data of the peer education programs implement for hot-spot based MSM communities in Sri Lanka and its use could facilitate improvements in service quality as a result of the availability of better quality data related to program performance

How to cite this Abstract

Suranga, M. S., Bandara, A. S., Rajakaruna, D. K., Senadhira, K. P., Fernando, M. N., & Chandrasekara, S. S. (2015). Development and Pilot Testing of an Onsite Data Verification Tool for Peer Education Programmes for Men who have Sex with Men in Sri Lanka. Responsive Evaluation 5th Biennial International Conference. Colombo: Sri Lanka Evaluation Association.

Application of M&E System Strengthening Tool (MESST) to assess the M&E systems for HIV prevention and treatment programme in Sri Lanka

D. Ajith Karawita¹, K.A.M. Ariyaratne², Suchira Suranga³, Dayanath Ranatunga⁴

1 Teaching Hospital, Anuradhapura

2. National STI/AIDS Control Program, Ministry of Health

3. Family Planning Association of Sri Lanka

4. UNAIDS, Sri Lanka

Originally published in Sri Lanka Journal of Sexual Health and HIV Medicine (Sri Lanka JoSHHM) (2015)

Introduction: Global Fund to fight AIDS, TB and Malaria (GFATM) is one of the main funding sources for Sri Lanka to achieve its national objectives on HIV prevention, treatment and care. The GFATM HIV/AIDS programme is collectively implemented by the National STD/AIDS Control Programme (NSACP) and non-government umbrella organizations (UOs). Grant recipients have to show results when requesting funds. Therefore, it is agreed that country HIV M&E systems should comply with the standard 12-components M&E system strengthening (MESS) tool. The objective of this assessment is to identify current strengths and weaknesses of the M&E systems and to develop a plan of action for system strengthening.

Methods: MESS tool was used for the assessment which has 12 Excel worksheets to be completed by the M&E stakeholders in the NSACP and UOs. Three multidisciplinary groups (10 stakeholders per group) were formed and each was given 4 sheets to be completed by participatory approach. Worksheets have M&E related statements to be collectively graded by stakeholders considering the country context and M&E experiences.

Results: MESS tool generate summary dashboards with regard to the collective grading of statements of the tool under 12-components. It showed both strengths and weaknesses in the prevailing M&E systems for HIV in the NSACP and UOs. Organization structure, human capacity, national and sub national databases as well as supportive

supervision & auditing are main areas identified by the tool that need strengthening.

Conclusions: MESS tool is an important organizing framework to identify strengths and weaknesses and gaps in the M&E system of the NSACP and UOs. Results reflect the areas to be strengthen and rectified in order to show realistic programme outcome and impact results.

Key words: Sri Lanka, MESS tool, Monitoring and Evaluation, HIV

[How to cite this Abstract](#)

Karavita, A., Ariyaratne, K. M., Suranga, M. S., & Ranatunga, D. (2015). Application of M&E System Strengthening Tool (MESST) to assess the M&E systems for HIV prevention and treatment programme in Sri Lanka. Sri Lanka Journal of Sexual Health and HIV Medicine

A Descriptive Study of Cervical Cytology Smears: A Clinic Based Study

S.Tissera , S. Suranga , D. Gamage , T. Weerakkodi

Family Planning Association of Sri Lanka

Presented at 30th International Papillomavirus Conference and Clinical and Public Health Workshop (2015)

Introduction: Cervical cytology is currently used for detection of premalignant disease of the cervix in SL. Cervical Cancer is the second commonest cancer among women in SL.

Objective: To describe occurrence of abnormal cervical cytology and associated characteristics.

Methodology: Data extracted from information available on the Pap Smear (PS) forms done during 2014

Results: Total PS in 2014 - 780. Mean age – 44.4 yrs. 330 (42.4%) using a FP method. Most popular - IUD – 202 (25.9%). 490 (62.8%) had one or two children. Mean number of pregnancies – 2.2. Of the available clinical data 331 (42.3%) had visually healthy cervix and 96 (12.3%) an unhealthy cervix. 72 (9.2%) had Cervical ectropian. 615 (75.8%) normal smears and 165 (24.2%) with chronic cervicitis (inflammation). Prevalence of inflammation higher among IUD users (32 percent) compared to other modern contraceptives. Statistically significant at 95 percent confidence interval ($\text{Chi}^2=11.629$, $P=0.040$). However, status of cervix (Healthy or unhealthy) identified during physical examination did not show statistically significant association with IUD use ($\text{Chi}^2=3.430$, $P=0.064$). PS results were highly associated with physical status of cervix ($\text{Chi}^2=26.540$, $P=0.000$) where 40.81 percent with Inflammation identified as “unhealthy cervix” during examination. Result of smear or status of cervix not associated with number of pregnancies. Unlike those in post-menopausal age (12 percent) higher percentage of reproductively active women (26 percent) identified with unhealthy cervix during examination.

Conclusions: The reason for not having any abnormal smears (CIN) would be that the women who come for a PS may be not in the risk category and coming for routine smears.

How to cite this Abstract

Tissera, S., Suranga, M. S., Gamage, D., & Weerakkodi, T. (2015). A Descriptive Study of Cervical Cytology Smears: A Clinic Based Study. 30th International Pappilomavirus Conference & Clinical and Public Workshop, (p. 181). Lisbon, Portugal .

Young People's Awareness on Induced Abortion and Abortion Law: A Community Based Study in Colombo City of Sri Lanka

Suranga, M. Suchira, Silva¹, K. Tudor, Senanayake², L., De Silva, W. Indralal³.

1 Family Planning Association of Sri Lanka

2 Faculty of Arts, University of Peradeniya

3 Department of Demography, University of Colombo

Annual Research Symposium– National Centre for Advanced Studies in Humanities and Social Sciences (2016)

Abortion is legally permitted in Sri Lanka, only if it is performed in order to save the mother's life. Although Sri Lanka has a very restrictive law on abortion, it is estimated that 125,000 to 175,000 induced abortions take place annually. In the year 2014, of maternal mortality, 12.5% was related to abortion which made it the third most common cause of maternal deaths. The young people's awareness on induced abortion and abortion law can influence individual decision making on both prevention and outcome of unwanted pregnancies. This study aims to understand the young people's awareness of induced abortion and abortion law in Colombo, Sri Lanka.

Six Grama Niladhari Divisions (GNDs) and five to eight housing clusters from each GND were selected from Thimbirigasyaya Divisional Secretariat Division using multi stage stratified random sampling technique. 50 households were systematically selected from each GND. An interview schedule was administered among 267 residents between 19 to 25 years of age after receiving written informed consent.

Only 58% of youth knew that there are specific days in menstrual cycle in which the chance to become pregnant is relatively high. One out of two respondents (53%) believed that intercrural intercourse without insertion in to vagina will not result in a pregnancy. Only 52% of respondents knew that a girl has a chance to become pregnant after a sexual act even before the first menstruation. Only 53% of respondents demonstrated correct knowledge on contraceptives. Awareness on emergency contraceptives was even less (40%). While

85% of respondents was of the view that since abortion is illegal, it is not happening in Sri Lanka, 16% thought abortion is a risk free procedure. Only 9% of the respondents knew the circumstances in which the abortion is legal in Sri Lanka. Around 80% of respondents believed provision of treatment for a woman who has undergone an illegal abortion is an offence as per the current law on abortion.

Study concludes that respondents demonstrate a low level of awareness on prevention of unwanted pregnancies, induced abortion and abortion law, which highlights the importance of a national Comprehensive Sexuality Education for in school and out of school youth.

Key Words: Youth, Induced abortion, Abortion Law, Awareness.

How to cite this Abstract

Suranga, M. S., Silva, K. T., & De Silva, I. (2016). Young People's Awareness on Induced Abortion and Abortion Law: A Community Based Study in Colombo City of Sri Lanka. Youth and Social Transformation The Power, Opportunities and Challenges (pp. 5-6). Colombo: National Centre for Advanced Studies in Humanities and Social Sciences in Sri Lanka.

Use of Information Communication Tools (ICT) to provide Sexual & Reproductive Health (SRH) information and counseling to the Most at Risk Populations (MARP) for HIV in Sri Lanka

Rajakaruna D, Suranga S, Bandara A, Senadheera K, Tissera S,
Family Planning Association of Sri Lanka

Presented at 12th International Congress on AIDS in Aisa and Pacific (ICCAP) in
Bangladesh (2016)

Background: Happylife (HL) contact Centre was established in 2009 to provide reliable SRH information/counselling to the public. The service is provided by trained doctors/counselors in languages familiar to the community using Multiple ICTs - calls, short messages (SMS), interactive voice calls, and web based chat/email. In 2013 and 2014 HL services were promoted among 2511 drug users, 2748 female sex workers, 2127 men having sex with men and 732 beach boys using 532 peer educators distributing leaflets/referral slips.

Objective: To analyze effective use of ICT to provide SRH services for MARPs on HIV/STI

Methodology: Trend analysis over three years (01. 01. 2012 – 31. 12. 2014) was done using data collected through a structured electronic data collection sheet.

Results: Total contacting HL during study period was 33,603. Mode of contacts, Calls 30,861 (91.8%), SMS 1,059 (3.1%), Chat 816 (2.4%) and E mail 475 (1.4%). 23,992 (71.4%) were males and 9,476 (28.20%) were below 25 years age. Total clientele contacting HL increased by 57% in 2014 compared to 2012. Queries directly related to sexuality and HIV/STI increased by 264.6%. Percentage of queries directly related to sexuality and HIV/STI (out of total number of inquiries) increased in 2014 (17.84%) compared to 2012 (7.69%). Substantial increase in counselling on HIV/STI risk reduction (163.72%), HIV/STI testing (117.48%), HIV treatment (1667%), sexuality (383.59%) and sexual orientation (493.67%) in 2014 compared to 2012.

Conclusion: Since MARPs don't willing to communicate on sexuality related concerns in person with counsellors; new developments in ICT and peer education can be utilized effectively to develop an integrated service provision model.

Key Words: Information Communication Tools, Happylife contact Centre, Most at Risk Populations, Sexuality

How to cite this Abstract

Rajakaruna, D., Suranga, M. S., Bandara, A. S., Senadheera, K., & Tissera, S. (n.d.). Use of Information Communication Tools (ICT) to provide Sexual & Reproductive Health (SRH) information and counselling to the Most at Risk Populations (MARP) for HIV in Sri Lanka.

Sexual & Reproductive Health (SRH) information and counselling to youth via Information Communication Tools (ICT)

Tissera.S¹, Suranga M.Suchira¹, Jayatillake A.C¹, Kodikara.
TD¹, Shilpeswarage S.P.U.K¹, De Silva W. Indralal²

1. *Family Planning Association of Sri Lanka*

2. *Department of Demography, University of Colombo*

Presented at Annual Research Symposium - National Centre for Advanced Studies in
Humanities and Social Sciences (2016)

Happy Life (HL) contact centre was established by FPA Sri Lanka in 2009 to increase access to reliable SRH information especially to the young population in a secure space using ICT as the platform. The project capitalized on the high level of mobile phone penetration (>95% usage), increasing ICT literacy (estimated at 35%) in the country and web access/PC penetration throughout the island. Multiple ICT tools including phone, short message services (SMS), interactive voice calls (IVR), web based solution -online chat/email, forums.

This study was conducted to analyze the client profile, type of queries made and modes of communication by youth clients who contacted the HL in 2015. Data of all young persons (aged less than 25 years) contacting HL during 1st January to 31st December 2015 was entered by the Service providers to a predetermined electronic database without personal identity information and analyzed descriptively.

Results revealed that, 3,915 services (34% of total services) had been provided to 1,083 youth clients. Highlighting the effect of culture & gender values, around three fourth of the queries were made boys. Majority (97.20%) accessed services over the phone, followed by SMS (1.67%) and E-mail (0.71%). Most (97%) of the queries were on SRH. Commonest questions raised were on contraception (48%) of which most were regarding Emergency Contraceptives (31%) and Oral Contraceptives (29%). Around one third (35%) of the total queries raised by the youth were on Sexuality concerns such as Sex (31%) menstruation (14%), penis size (11%), masturbation (10%),

ejaculation (7%), virginity (1%) and etc. Minor but important proportion of queries (8% of the total queries raised by youth) were on Sexual Problems such as pre mature ejaculation (44%), vaginismus (23%) erectile dysfunction (13%), and desire concerns (19%). There were also few queries on STI/HIV, abortion, gender orientation and Gender Based violence.

In conclusion, there is a vacuum and an emerging demand in Sri Lankan community to create a safe and confidential space for youth to access reliable information and services on SRH. ICT is one of the best approaches to reach the youth community.

Keywords: Sexual & Reproductive Health (SRH), Information Communication Tools (ICT), Youth, Information and Counselling

How to cite this Abstract

Tissera, S., Suranga, M. S., Jayatillake, A., Kodikara, T. D., Shilpeswarage, S. P., & De Silva, W. I. (2016). Sexual & Reproductive Health (SRH) information and counselling to youth via Information Communication Tools (ICT). *Youth and Social Transformation : Annual Research Symposium* (p. 11). National Centre for Advanced Studies in Humanities & Social Science Sri Lanka.

Perceptions on the abortion laws in Sri Lanka – A community based study in the city of Colombo

Suranga M. S.¹, Silva K.T.², Senanayake L.¹
1 Family Planning Association of Sri Lanka
2 Faculty of Arts, University of Peradeniya
Originally Published in Ceylon Medical Journal (2016)

Introduction: Abortion is legally permitted in Sri Lanka, only if it is performed to save the mother's life. However, it is estimated a large number of induced abortions take place in Sri Lanka. Knowledge and attitudes towards induced abortion in the society are key issues influencing the policy response towards changes in the law. This study aims to assess the knowledge and attitudes of adults towards induced abortion in Sri Lanka.

Methodology: Six Grama Niladhari Divisions (GNDs) and five to eight housing clusters from each GND were selected from Thimbirigasyaya Divisional Secretariat Division using multi stage stratified random sampling. 50 households were systematically selected from each GND. An interview schedule was administrated among 743 residents between 19 to 49 years of age after receiving written informed consent.

Results: Only 11% of the respondents were familiar with the situations in which abortion is legal in Sri Lanka. Approximately one tenth of the respondents (11%) do not accept the opportunity granted by the current law to perform induced abortion to save the life of the mother. However, a majority agreed to legalize abortion for rape (65%), incest (55%) and pregnancies with lethal fetal abnormalities (53%). Less than one tenth of respondents agreed to legalize induced abortion for other reasons such as contraceptive failure (6%), bad economic conditions (7%), on request (4%), etc.

Conclusion: Although the society rejects abortion on request /demand and for most of other reasons, majority are in favor of and accept the provision of abortions specifically

for rape, incest and fetuses with lethal abnormalities.

Keywords: Abortion, Sri Lanka, Fetal abnormalities, Miscarriage

How to cite this Abstract

Suranga, M. S., Silva, K. T., & Senanayake, L. (2016). Perceptions on the abortion laws in Sri Lanka – A community based study in the city of Colombo. Ceylon Medical Journal, 171.

HIV risk behaviours among youth female sex workers in selected districts of Sri Lanka; a baseline cross sectional study

De Silva W. Indralal¹, Dewasurendra J.W², SMAS Bandara²,
Suranga MSS², Rajakaruna RMDK², HAS Priyantha³

1. *Department of Demography, University of Colombo*

2. *Family Planning Association of Sri Lanka*

3. *Community Strengths Development Foundation, Colombo*

Presented at 9th Asia Pacific Conference on Sexual and Reproductive Health Rights in Vietnam (2017) and Annual Research Symposium – National Centre for Advanced Studies in Humanities and Social Sciences (2016)

Estimated number of Female Sex Workers (FSW) in Sri Lanka is 9,947 of which 11.9% (1,183) is estimated to be in 15-24 age groups. HIV prevalence among FSW is 0.81% in 2014. By end of 2013, 52 new HIV cases were reported among the females of age 15-24. A community based cross sectional study was conducted to identify HIV risk behaviors and health seeking behaviors of youth FSWs.

A pre-tested, structured questionnaire was administered among 526 youth (age 18-24) FSWs respondents randomly selected using snow ball sampling through Peer Educators in five selected districts. The interviews were conducted by trained field supervisors after receiving the oral informed consent.

The mean age of the sample was 22.93 (SD=1.9) years with range of 18-25. Majority (83.8%) of respondents were urban. 27% of them were street based FSWs, 16% hotel/lodge based and rest were based in their houses/slums. Majority (92%) of the respondents were engaged in selling sex for a period 1-5 years with the mean per 1.14 years of sex work. Average partner exchange rate was high (25.9 partners per month); 26% of the respondents reported 11-20 sexual partners during the last month. Around three fourth (73%) of respondents were adjoined to Sex work daily. 84% of respondents reported using condoms at the last sex which is lower than the general FSWs (92.9%) reported in Integrated Biological and Behavioural Surveillance Survey (IBBS), 2014. Only 15.6% of respondents had tested

for HIV during the last 12 months and knew their result which is again significantly lower (35%) than the accessing HIV tests by the general FSWs reported in IBBS.

Results reflects that the youth FSW in the selected districts reported high HIV risk behaviours and low health seeking behaviour with compared general FSWs in Sri Lanka which highlight the importance of more focus interventions to address the issue.

Key Words: Condom, HIV and STI Prevention, HIV Risk Behaviors, Youth Female Sex Workers.

[How to cite this Abstract](#)

De Silva, I., Dewasurendra, J. W., Suranga, M. S., Bandara, A. S., Rajakaruna, D. K., & Priyantha, H. S. (2017). HIV risk behaviours among youth female sex workers in selected districts of Sri Lanka; a baseline cross sectional study. 9th Asia Pacific Sexual and Reproductive Health Rights Conference. Halong Bay, Vietnam.

Factors Associated with Attitudes on Induced Abortion – A Community Based Study among Adults in Colombo City of Sri Lanka

M. Suchira Suranga¹, K. Tudor Silva², Laksman Senanayake³

1. Family Planning Association of Sri Lanka

2. University of Peradeniya, Sri Lanka

3. Sri Lanka College of Obstetricians & Gynecologists

Originally published in Sri Lanka Journal of Advanced Social Studies (2016)

Background: Attitudes towards induced abortion can influence not only individual decision-making on the outcome of unwanted pregnancies, but also the health sector policy response towards future changes in the law.

Methodology: A structured questionnaire was administered among 743 randomly selected residents between the ages of 19 to 49 years after receiving written informed consent to identify the factors associated with abortion attitudes.

Results: Ethnicity, religion, age, years of formal education, marital status, and number of living children, individual exposure and personal experience about the issue were identified as the factors influencing abortion attitudes. The results of this study may be used by the stakeholders to design more focus interventions

to address the issue in the future.

Key Words: Abortion attitudes; associated factors; Induced abortion

How to cite this Abstract

Suranga, M. S., Silva, K. T. & Senanayake, L., 2016. Factors Associated with Attitudes on Induced Abortion – A Community Based Study among Adults in Colombo City of Sri Lanka. Sri Lanka Journal of Advanced Social Studies, Volume 5 & 6, p. 4.

Factors associated with clinic escorts in peer-led HIV prevention interventions for men who have sex with men (MSM) in Sri Lanka

M Suchira Suranga¹, DA Karawita², SMAS Bandara¹, RMDK Rajakaruna¹

1 Family Planning Association of Sri Lanka

2 Teaching Hospital, Anuradhapura

Originally published in Journal of Virus Eradication (2016)

Background: Sri Lanka has recently completed an HIV prevention project for most-at-risk populations (MARPs) under the Global Fund. The intervention includes delivery of a HIV prevention package (HPP) to men who have sex with men (MSM) that includes provision of: (1) knowledge about sexually transmitted infections (STI); (2) HIV knowledge; (3) MSM-tailored leaflets; (4) condom/dildo demonstration; (5) provision of condoms; and (6) clinic escorts. MSM who received services 1–5 in the HPP are defined as ‘reached’. The final step is to escort the reached MSM to an STI clinic, and they are then defined as ‘escorted’. This HPP was delivered to MSM through peer educators (PE) scattered in four highly populated districts in the country. Each PE has contact with another 15 peers forming a peer group (PG). However, in this model, a significant number of MSM do not take up the escorting step of the HPP. Therefore, the purpose of this paper is to analyse the factors associated with clinic escorts among MSM peers in the HIV prevention project.

Method: All the MSM peers (699 MSM) registered and retained during the project period had been reached in 2013, 2014 and 2015 and were chosen from the web-based Monitoring and Evaluation information management system (MEIMS) for analysis. The sample was divided into two groups based on escort status (escorted peers vs non-escorted peers). Variables were compared between the two groups for the hypothesis of difference to identify significant factors associated with clinic escorts.

Results: The study sample (699 MSM) represented four districts: Galle (37%), Colombo (35%), Gampaha (14%) and Kalutara (14%). Escort status depended on the district ($P < 0.001$), age group of MSM ($P = 0.008$), level of education ($P = 0.007$) and urban/rural status ($P < 0.001$), duration of MSM behaviour ($P = 0.018$), experience of an HIV test during previous 12 months ($P = 0.050$), and recent receptive anal sex ($P = 0.050$).

Conclusions: Older MSM (>25 years), MSM living in urban and semi-urban areas, Nachchi MSM (effeminate males), MSM with receptive behaviours as well as less-educated MSM were less likely to be escorted and needed some extra effort to improve escort rate among MSM. In addition, performance of PEs, field supervisors and coordinators was observed to be a major factor in improving escort rate.

Keywords: Men who have sex with men, MSM, HIV, escorts, peer education, Sri Lanka

How to cite this Abstract

Suranga, M. S., Karawita, A., Bandara, A. S., & Rajakaruna, D. K. (2016). Factors associated with clinic escorts in peer-led HIV prevention interventions for men who have sex with men (MSM) in Sri Lanka. *Journal of Virus Eradication*.

An Assessment of Knowledge and Attitudes Regarding Induced Abortions among Clients Attending Clinics of The Family Planning Association of Sri Lanka

Kaluarachchi A, Gnanissara SAP, Kodikara TD, Shilpeswarage SPUK, Suranga MSS, Athapaththu AMKGN, Chandimal AVI, Abeyratne WKDP, Sajeemala WG, Tissera S

Family Planning Association of Sri Lanka

Annual Research Symposium – University of Colombo (2016)

Introduction: Even with a high national contraceptive prevalence rate of 68 percent with 50 percent using modern methods, some women are still faced with unwanted pregnancies and some of them resort to abortion outside the law; most of which are unsafe. Unsafe abortion is considered as one of the major causes of maternal deaths in Sri Lanka. In 2015 septic abortions accounted for 12.5% of the maternal deaths which was the second leading cause. Studies reveal that there are around 700 induced abortions performed in Sri Lanka daily. It is estimated that for every 10 babies born in Sri Lanka, 7 are being aborted.

According to the Penal Code of 1883 abortion is illegal in Sri Lanka except to save the life of the mother. Many attempts were made over the last few years to relax the law to allow abortions to prevent grave injury to the physical and mental health of the mother, in cases of rape or incest, and in cases of congenital abnormalities not compatible with life. These attempts were abandoned at the last minute due to pressure from groups such as religious leaders.

Objective: To assess the knowledge and attitudes concerning induced abortions among clients attending clinics of The Family Planning Association of Sri Lanka.

Methodology: A descriptive cross-sectional study was conducted among randomly selected men and women attending FPA Sri Lanka clinics using a self-administered questionnaire during 1st July to 30th September 2014. Every third client was approached at the clinic reception until the required sample size is attained after receiving the informed consent.

Results: There were 282 respondents (response rate - 70.5%), the youngest being 17 years and the oldest 73 year old female. Mean age was 33.31 years, 196 (69.5%) were females and 229 (81.2%) were married. Around one out of two (42.9%) had studied till O/L and 22% up to A/L. Around 12% of the respondents had no children, 22% one child and 47% two or three children. Majority (88%) considered abortion as a problem in the country. Most perceived abortions were done with oral drugs (71%), by unmarried women (68.1%) and were performed by doctors (78%). Only 12 (4.3%) had correct knowledge on existing abortion law. Around 16% knew of someone who got a termination done.

Male respondents are more likely to accept liberalized law on abortion than those of females ($P=0.007$). More specifically, male respondents are more likely to approve relaxing abortion law to include rape and incest. Same trend was observed when accepting legal abortion as a women's right ($P=0.001$). Demonstrating conservative attitudes, female respondents are more likely to believe that the religious laws around abortion are necessary to safeguard traditional values ($P=0.000$). However, any of these variables was not significantly associated with the age of the respondents.

Conclusion: Respondents demonstrating a low level of awareness on abortion, the legal situation and conservative attitudes, which highlights the need for more focus interventions to sensitize the community and address the issue. These negative attitudes may hinder in advocating for relaxation of the existing law.

Key Words: Abortion, Law, Attitudes, Knowledge & FPA Sri Lanka

How to cite this Abstract

Kaluarachchi, A., Gnanissara, S. P., Kodikara, T. D., Shilpeswarage, S. P., Suranga, M. S., Athapaththu, A., Tissera, S. (2016). An Assessment of Knowledge and Attitudes Regarding Induced Abortions among Clients Attending Clinics of The Family Planning Association of Sri Lanka. Empowering Humanity : Challenges and Responses. University of Colombo.

Time taken to escort men who have sex with men (MSM) for HIV testing in the peer group interventions in Sri Lanka

M. Suchira Suranga¹, D. A. Karawita², S.M.A.S. Bandara¹, R. M. D. K. Rajakaruna¹

1. *Family Planning Association of Sri Lanka*

2. *Teaching Hospital, Anuradhapura*

Sri Lanka Journal of Sexual Health and HIV Medicine (Sri Lanka JoSHH) (2016)

Introduction: Sri Lanka has completed a phase of an HIV prevention project (from 2013 to 2015) for men who have sex with men (MSM) under the support of Global Fund. The intervention was to deliver an HIV prevention package (HPP) to MSM which included provision of six services (1. STI knowledge, 2. HIV knowledge, 3. MSM tailored leaflets, 4. Condom/dildo demonstration, 5. Provision of condoms, and 6. Clinic escort). MSM who received all 1, 2, 3, 4 and 5 services in the HPP are defined as “reached”. The final step is to escort the reached (who received initial 5 services) MSM to an STD clinic, and ones they are escorted they are defined as “escorted”. This HPP was delivered to MSM through peer educators (PE) scattered in four high populous districts in the country. Each PE has regular contact with another 6-15 peers forming a peer group (PG). However, in this model, a significant number of MSM does not take the escorting step (step 6). Therefore, the purpose of this paper is to analyze the time taken to escort and other associated factors for an MSM to be escorted to an STD clinic.

Method: All the MSM peers (699 MSM) registered in 2013 and retained during the project till the end of December 2015 have been filtered out from the web-based monitoring and evaluation information management system (MEIMS) for analysis. Time-to escort analysis with Kaplan–Meier was performed to find out median escort time. Hypothesis testing for equality of survival distribution (Kaplan–Meier curve) was conducted to determine the differences in probabilities of first clinic escort for different socio-economic and demographic characteristics.

Results: Estimated median time-to escort was 17 months (SD = 0.867). Escorting is less likely with non-youth MSM (>25 years), educated MSM (> GCE O/L), rural MSM, Nachchi MSM (effeminate males), high frequent receptive MSM (>7/week) and high duration MSM (>10 years). Galle and Gampaha districts shows high performance in escorting compared to other districts

Conclusions: More vulnerable and high risk segments of MSM population are less likely to be escorted for HIV testing in the current programme design. Current intervention need to strengthen with more focus strategies to address this programmatic gap. In addition, performance of PEs, field supervisors and coordinators has been observed to be a major factor in improving escort rate.

Key words: Men who have sex with Men (MSM), HIV, time taken to escort, Escorts, Peer Education, Survival Analysis

How to cite this Abstract

Suranga, M. S., Karawita, A., Bandara, A. S., & Rajakaruna, D. K. (2016). Time taken to escort men who have sex with men (MSM) for HIV testing in the peer group interventions in Sri Lanka. Sri Lanka Journal of Sexual Health and HIV Medicine, 2, 27.

Limited resources and challenging targets? Contributing to Sustainable Development Goals through continuous monitoring of program efficiencies

**Suchira Suranga M , Senadhira SDKP , Duminda RMDK ,
Family Planning Association of Sri Lanka
Presented at 8th AfrEA International Conference (2017)**

Introduction: Programme efficiency is a vital factor in achieving sustainable development goals in an environment of scarce resources. The Branch performance tool developed by International Plan Parenthood Federation (IPPF) is an effective tool for continuous monitoring of programme efficiency in health sector. The Family Planning Association of Sri Lanka, the leading non-governmental organization (NGO) working for Sexual and Reproductive Health (SRH) and Rights in Sri Lanka was successful in achievement of programme efficiencies through continuous monitoring of cost effectiveness indicators using BPT.

Methodology: The service delivery data collected through internet based monitoring and Evaluation information management system (MEIMS) and costing data for three consecutive years (2012-2014) were fed in to the BPT. Performance of Key efficiency indicators and relative efficiency derived through Data Envelopment Analysis for each Service Delivery Point were used to develop a plan of action at the end of each year. Lesson learnt of the “best practice SDPs” and “improvement opportunities” of low efficient SDPs identified by the BPT were presented at the review workshops as the basis for management action.

Results: There was a significant achievement in all efficiency indicators from the year 2012 to 2014 which includes increase of number of clients per staff day from 1.9 to 3.0, Cost recovery ratio from 20% to 29%, and reduction of cost per SRH service from 6 USD to 2.7 USD, and overhead cost as a percentage of total cost from 20.5% to 12.8% at the organizational level.

Conclusions: Branch performance tool is effective for evidence based decision making on programme efficiency of health service delivery interventions which can contribute to achievement of SDG-3 target; ensure universal access to sexual and reproductive health-care services, including for family planning, by 2030

[How to cite this Abstract](#)

Suranga, M. S., Senadhira, K. P., & Rajakaruna, D. K. (2017). Limited resources and challenging targets? Contributing to Sustainable. 8th AfrEA International Conference, (p. 14). Kampala.

Gender differences in knowledge and attitudes concerning induced abortion in Sri Lanka: a community based study in the Colombo City

M. Suchira Suranga¹, Kalinga Tudor Silva², Lakshman Senanayake¹

1. *Family Planning Association of Sri Lanka*

2. *University of Peradeniya, Sri Lanka*

Originally published in *Sri Lanka Journal of Social Sciences* (2017)

Abortion is legally permitted in Sri Lanka, only if it is performed to save the mother's life. However, it is estimated that 125,000 to 175,000 induced abortions take place annually (De Silva, 1997). Knowledge and attitudes towards induced abortion in society can influence individual decision-making on the outcome of unwanted pregnancies and the health sector policy response. This study aims to understand the gender differences in knowledge and attitudes of adults towards induced abortion in Sri Lanka. Six Grama Niladhari Divisions (GNDs) and 50 households in the Colombo City were systematically selected using multi stage cluster sampling. An interview schedule was administered among 743 residents between 19 to 49 years of age after receiving their written informed consent. Around 31 percent of females and 57 percent of males do not know that there are specific days in the menstrual cycle in which the chance of becoming pregnant is relatively high. Female respondents' awareness (48 percent) of emergency contraception was significantly lower than that of males (60 percent). Only 11 percent of the respondents knew the situations in which abortion is legal in Sri Lanka. Around, 93 percent of females and 70 percent of males

percent) and at the request of the woman (4 percent). In conclusion, female respondents demonstrate a moderate to low level of knowledge and conservative attitudes towards induced abortion, which highlights the need for more focused interventions to address the issue.

Keywords: Induced abortion, knowledge, attitudes, gender.

How to cite this Abstract

Suranga, M. S., Silva, K. T., & Senanayake, L. (2017). Gender differences in knowledge and attitudes concerning induced. *Sri Lanka Journal of Social Sciences* , 40(2), 93-102. doi:<http://dx.doi.org/10.4038/sljss.v40i2.754>

($\chi^2=56.27$, $P<0.001$) believed that induced abortion is against cultural and moral values. A majority of the respondents agreed to legalise abortion under rape (65 percent), incest (55 percent) and lethal fetal abnormality conditions (53 percent). A very small percentage of respondents agreed to legalise induced abortions in the situation of economic problems (7 percent), contraceptive failure (6 percent), at the request of the couple (5

Access to information and attitudes towards induced abortion: a community-based study among adults in the City of Colombo, Sri Lanka

Suchira Suranga¹, Kalinga Tudor Silva², Lakshman Senanayake³

1 Family Planning Association of Sri Lanka.

2 Faculty of Arts, University of Peradeniya.

Originally published in *Journal of the College of Community Physicians of Sri Lanka (2017)*

Introduction: Abortion is legally permitted in Sri Lanka, only if it is performed to save the mother's life. However, it is estimated that a large number of induced abortions takes place in Sri Lanka.

Objective: To describe the accessibility of abortion related information and its association with attitudes towards induced abortion in an urban community in Sri Lanka

Methods: A cross-sectional community-based household study was conducted in the City of Colombo among 743 respondents recruited using stratified, cluster sampling method. An interview-administered questionnaire collected data on access to formal and informal sources of information on induced abortion and attitudes on induced abortion and access to information on attitudes. Descriptive statistical analysis and non-parametric hypothesis testing were performed using SPSS software.

Results: The majority of respondents agreed to legalize abortion for rape (65%), incest (55%) and pregnancies with lethal foetal abnormalities (53%). However, less than 7% agreed to legalize induced abortion for other reasons such as contraceptive failure, bad economic condition and on request. The most common source of information on abortion was informal discussions, followed by the mass media. Access to information on abortion through newspapers, leaflets/handouts, television/ radio programs and news, internet and informal discussions shows a positive association with liberal attitudes towards induced abortion. Access to mass media showed the highest influence in determining

abortion attitudes.

Conclusion: Access to information was positively associated with the liberal attitudes towards induced abortion.

Key words: access to information, induced abortion, abortion attitudes, communication

[How to cite this Abstract](#)

Suranga, M. S., Silva, K. T., & Senanayake, L. (2017). Access to information and attitudes towards induced abortion: a community-based study among adults in the City of Colombo, Sri Lanka. *Journal of the College of Community Physicians of Sri Lanka*, 28. Retrieved from <https://jccpsl.sljol.info/articles/abstract/10.4038/jccpsl.v23i1.8086/>

Acceptability of Oral-fluid rapid HIV 1 and 2 antibody test among selected key populations in Sri Lanka

Karawita D.A.¹, Tennakoon S.U.B.², Suranga S.³, Dissanayake M.S.W.³

1. Teaching Hospital, Anuradhapura, Sri Lanka

2. Department of Community Medicine, University of Peradeniya.

3. Family Planning Association of Sri Lanka

Originally published in Sri Lanka Journal of Sexual Health and HIV Medicine (Sri Lanka JoSHH) (2017)

Introduction: Oral-fluid rapid HIV 1 and 2 antibody test is recommended by WHO to be used as a “test for triage” to support expanding community-based HIV testing services among Key populations (KPs) for HIV infection such as Men who have sex with men (MSM), Beach boys (BB), Female sex workers (FSW) and Drug users (DUs)

Objective: The aim of this study was to ascertain the acceptability of oral fluid rapid HIV 1/2 antibody test (OraQuick®) among key populations receiving services under the Global Fund HIV prevention project during 2013-2015 in Sri Lanka. Methods: Out of the total registered members of KPs (21,014), a purposive sample of 614 (MSM185, BB-128, FSW-155, DU-146) was studied. Data collected by WHO certified community testers using three tools, i). interviewer administered questionnaire, ii) confidential oral fluid rapid HIV test and recording, iii), a self-administered feedback form.

Results: Mean age of the sample was 34 years (Mdn=32.7 years). Males, females and transgender people were 68.9%, 30.6%, 0.5% respectively. Further, 40.7% were single, 36.5% married, 11.7% living together and 11% were separated. It seems that these groups prefer both community testing (49%) as well as outreach testing by STD staff (49%). However, going to an STD clinic was preferred only by 10%. Majority preferred oral-fluid testing (88%) and finger prick testing preferred by 10.2%. Majority expected test report just after the test (88.3%). The overall satisfaction of the oral-fluid rapid HIV test by KPs was MSM 97%,

BB-99%, FSW-99%, DU-99%.

Conclusions: Members of KP groups show high level of acceptability for the oral-fluid rapid HIV 1 and 2 antibody test. This type of “test for triage” approach can be used to improve the community based HIV testing in Sri Lanka.

Key words: HIV, oral fluid test, Acceptability, Sri Lanka

[How to cite this Abstract](#)

Karawita, D. A., Tennakoon, S. U., Suranga, M. S. & Dissanayake, M. S., 2017. Acceptability of Oral-fluid rapid HIV 1 and 2 antibody test among selected key populations in Sri Lanka. Sri Lanka Journal of Sexual Health and HIV Medicine, December, Volume 3, p. 24.

The Branch Performance Tool; A methodological approach for continuous monitoring of program efficiencies of service delivery interventions.

Suchira Suranga M, Senadhira SDKP, Duminda RMDK
Family Planning Association of Sri Lanka
Originally published in *Africal Evaluation Journal* (2018)

Introduction: - Programme efficiency is a vital factor in achieving sustainable development goals in an environment of scarce resources. The Branch performance tool (BPT) developed by International Plan Parenthood Federation (IPPF) is an effective tool for continuous monitoring of programme efficiency in the health sector. The BPT is an Excel-based tool which enable users to enter data and view auto-generated reports on a packaged of pre-defined indicators on programme efficiency and cost effectiveness of service delivery interventions. The Family Planning Association of Sri Lanka, the leading non-governmental organization (NGO) working for Sexual and Reproductive Health (SRH) and Rights in Sri Lanka was successful in the achievement of programme efficiency though continuous monitoring of cost effectiveness indicators using the Branch Performance Tool (BPT).

Methodology: - The service delivery data collected through an internet based monitoring and Evaluation information management system (MEIMS) and costing data for three consecutive years (2013-2015) were fed into the BPT. Performance of Key Efficiency Indicators (KPI) and relative efficiency derived though Data Envelopment Analysis for each Service Delivery Point (SDP) were used to develop a plan of action at the end of each year. Lessons learned of the “best practice SDPs” and “improvement opportunities” of low efficient SDPs identified by the BPT were presented at the review workshops as the basis for management action.

Results: - There was a significant achievement in all efficiency indicators from the year 2013

to 2015 which includes: increase of number of clients per staff day from 1.9 to 3.0, spike in the cost recovery ratio from 20% to 29%, reduction of cost per SRH service from 3.6 USD to 2.7 USD, and decrease of overhead cost as a percentage of total cost from 20.5% to 12.8% at the organizational level.

Conclusions: - BPT is effective for evidence-based decision-making on programme efficiency of service delivery interventions in health Sector. BPT has a potential for further improvement and replicate in the health sector which will contribute for pursuit of SDG 3.

Key Words: - Monitoring Programme Efficiency, Cost Effectiveness, Medical Service Delivery

[How to cite this Abstract](#)

Suranga, M. S., Senadhira, K. P., & Rajakaruna, D. K. (2018). The Branch Performance Tool; A methodological approach for continuous monitoring of program efficiencies of service delivery interventions. *African Evaluation Association Journal*.

Service provider perceptions of the trend in severity of symptoms and complications in women admitted following an incomplete abortion

Athula Kaluarachchi¹, Sumithra Tissera², Achini C. Jayatillake², Suchira Suranga², Philip Guest³, Karthik Srinivasan³, Bela Ganatra⁴

1 Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Colombo

2 Family Planning Association of Sri Lanka

3 Mahidol University, Nakhon Pathom, Thailand

4 World Health Organization, Geneva, Switzerland

Originally published in Journal of Family Medicine and Primary Care (2018)

Introduction: Sri Lankan abortion law which dates back to the year 1883, and still unchanged, only allows a legal termination when the mother's life is in danger. Many studies undertaken in the country estimates that even in the light of such a backdrop, and with a high contraceptive prevalence rate, many women attempt an abortion when faced with an unwanted pregnancy.

Objectives: To describe the changes in abortion-related complications in the country over a period of time and explore the reasons for any changes in severity of symptoms among women hospitalized following an abortion based on the perceptions of healthcare service providers.

Methodology: Using an interviewer guide, in-depth interviews were carried out among 30 service providers of post abortion care with more than 5 years of experience in obstetrics and gynecology in Sri Lanka.

Results: Service providers perceived that the number of women presenting to hospitals after an induced abortion caused by a mechanical method is minimal or not at all at present. Over time, a significant reduction is seen in the number of women presenting with any abortion-related complications and the severity of complications has also reduced significantly. The common method of termination at present identified by the providers was the use of "drugs" or "the drug – Misoprostol."

Conclusion: Over the years, women appear to have switched from surgical and mechanical methods to medical means (drugs) to induce an abortion and this change has contributed to reduce the severity of complications.

Keywords: Incomplete abortion, induced abortion, service provider perceptions, severity of symptoms, Sri Lanka

[How to cite this Abstract](#)

Kaluarachchi, A., Tissera, S., Jayatillake, A. C., Suranga, M. S., Guest, P., Srinivasan, K., & Ganatra, B. (2018). Service provider perceptions of the trend in severity of symptoms and complications in women admitted following an incomplete abortion. *Journal of Family Medicine and Primary Care*. doi:10.4103/jfmpc.jfmpc_188_18

Modeling Time Taken to HIV Testing and Follow-up Clinic Visits to Collect the Test Results; Multivariate Survival Analysis with Multiple Ordered Events

M. S. S. Suranga

Family Planning Association of Sri Lanka

Thesis submitted for M.Sc. in Bio-Statistics, University of Peradeniya (2019)

Introduction and Background: Improving HIV testing among Key Populations (populations at high risk) is one of the first steps to achieve the Sustainable Development Goal target of ending AIDS by 2030. Studying the time taken to HIV testing and subsequent clinic visits to uptake test result provide important inputs for development of HIV prevention programmes. HIV testing and follow-up visit to uptake the test result are not two independent events which occur simultaneously. Since, these two events are related, it is important to develop multivariate techniques to explain the pattern of both events together. Therefore, this study aims to understand the pattern of HIV testing behavior of Female Sex Works (FSWs) over the time and develop a multivariate technique to describe HIV testing behavior of Most at Risk Populations.

Methodology: HIV testing data of 5667 FSWs registered with national HIV prevention programme in 10 districts of Sri Lanka during 2016 and 2017 were captured from the Monitoring and Evaluation Information Management System (MEIMS) of FPA Sri Lanka; the Primary Recipient-2 of national HIV prevention programme. The ethical approval to conduct the study was received from Sri Lanka Medical Association. First the Kaplan–Meier (KM) estimates with hypothesis testing and univariate Cox proportional hazard model were performed to describe 1) Time taken to HIV testing from registration, 2) Time taken to uptake test result from HIV testing and 3) Time taken to uptake HIV test results from registration. Then Prentice, Williams & Peterson (PWP) gap time model and PWP total time model were performed considering two events together. Finally the univariate

Cox regression model taking “first principle component of two survival times” as the time variable was performed. Both Cox regression model and PWP models were extended to handle the time depended covariates by including the interaction term with the time in the model.

Results: All 06 models discussed generated consistent results for the explanatory variable district which was not time dependent in any of the models. FSWs in Colombo district are likely to complete both events relatively lower period of time. “Education category” was not significant in any of the univariate models. However, the results generated in all 03 multivariate models clearly showed that educated FSWs are less likely to test for HIV and uptake test results. Age was significant in the first univariate model (HIV testing from registration) and all multivariate models. Adult FSWs tend to test for HIV and uptake test results within shorter period of time compared to young FSWs. Number of sexual partners showed negative association with HIV testing in all the models except PWP Total Time model which resulted contradictory results. It is clear that FSWs who have tested for HIV before joining with the programme are less likely to test for HIV and uptake test result. Interaction between Typology and Condom use was significant in 2nd univariate model (from testing to uptake test result) PWP Gap Time model, Cox model with first Principle Component. The estimates of the interaction effect was almost consistent in all the models. The time dependent covariates showed that the effect of all covariates on HIV testing are declining over time, but significant even after two years of project implementation.

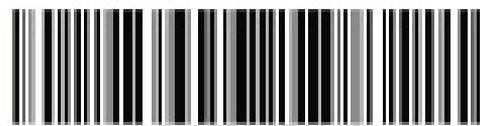
Conclusion: PWP Gap Time model is more powerful to explain the HIV testing behavior compared to PWP Total Time model. The PWP models can be extended to handle the time dependent covariates. The univariate Cox Proportional Hazard model with Principle Component Analysis can be used as an alternative to the PWP Gap Time model, but developed inflated hazard ratios. The high risk FSWs are likely to take more time to complete both events. More focus and tailor-made interventions are needed to increase the HIV

testing among different sub –populations of FSWs.

[How to cite this Abstract](#)

Suranga, M. S., 2019. Modeling Time Taken to HIV Testing and Follow-up Clinic Visits to Collect the Test Results; Multivariate Survival Analysis with Multiple Ordered Events.

ISBN 978-955-8876-31-2



9 789558 876312

me.fpasrlanka.org