Advances in Life Science and Technology
ISSN 2224-7181 (Paper) ISSN 2225-062X (Online)
Vol.33, 2015

A Synthetic Review of Contraceptive Supplies in Punjab

Naqvi Hamad[1*] Ali Bahadur Qazi[1] Shabee Hassan[2] Sabeeka Batool[3] Zahida Sarwar[1] Shabiralyani[4]
1.Policy and Strategic Planning Unit, Punjab Health Department, Pakistan
2.Agha Khan Medical University, Karachi, Pakistan
3.Services Hospital, Lahore, Pakistan
4.Government College University Faisalabad, Pakistan

Abstract
Use of contraceptive supplies around the world has given couples a chance to choose the number and spacing of their children and has had remarkable lifesaving benefits. Healthy time and spacing for pregnancies is helpful for mother's and newborn's health. Yet despite these efforts, contraceptive use is still low in Pakistan. In this paper an annual comparison of contraceptive commodities in Punjab obtained by Bureau of statistics and Pakistan Development statistics has been made. A consolidation of contraceptive commodities of first quarter of 2015 in Punjab in collaboration with Policy and Strategic Planning Unit (PSPU) and Integrated Reproductive Mother, Neonatal and Child Health (IRMNCH) & Nutrition Program of Punjab has been discussed. Suggestions have been given that how use of FP services can be improved through filling gaps for the implementation and evaluation of FP2020 initiatives. Family planning commodities requires a strategy for bridging the gaps to overcome the unmet needs.

INTRODUCTION

The human rights rationale believes that individuals and couples have fundamental right to control reproductive decisions, including family size, spacing and the timing of births. Family planning enables individuals and couples to plan children by choice not chance by preventing unintended pregnancies through contraceptive methods. Literature shows that Family Planning (FP) has improved lives by avoiding unintended pregnancy. It is indirectly helpful in reducing poverty and improving women's and girls' social status. FP reduces poverty, improves health and empowers women (Bongaarts et al. 2012). Contraception involves the use of drugs, devices, surgeries or behaviors that control fertility. FP has trickled down birthrate globally. From 1950 to 2015, taken globally, the total fertility rate (TFR) at replacement is reduced from 5 to 2.33 children per woman. Whereas in Pakistan TFR is 3.8 (urban 3.2, Rural 4.2) which is an alarming situation for think tanks (PDHS 2012-13). Family Planning Programs contribute significantly in this regard as Total Fertility Rate (TFR) is inversely proportional to Contraceptive Prevalence Rate (CPR) and directly proportional to population Annual Growth Rate (AGR).

TFR from 1986

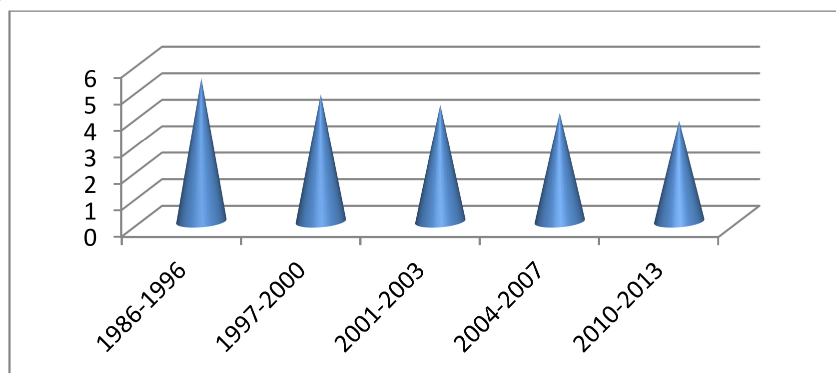

Figure-1Family planning growth rate

Every country in the world intends to reduce population growth to balance between country's resources and population. Short spacing between births is linked with low birth weight, prematurity, infant and child death and also endangers mother's health. The study says that 1 million of 11 million deaths in children under age 5 can be saved if birth spacing is at least two years (Cleland et al. 2006).

The International Family Planning Summit held in London in July 2012 stressed international community and national governments for financial and political support to achieve the goal of 120 million new users of contraceptives by 2020. This is known as FP2020. It focuses on:

- Enhancement of FP services delivery through political commitment and accountability.
- Universal access to FP services, supplies and information
- Develop and adopt new contraceptive methods

- Congenial atmosphere for FP commodities

It is the need of time that all women should have access to effective and affordable contraceptive commodities and methods in accordance to their needs. It is the responsibility of FP channels to make these services available in a reliable way. Various social factors have effect on demand and use of FP commodities. These factors are age, level of education, girls' and women's social status, marital status, economic status, etc. (Malarcher et al. 2011; DFID 2010).

STATUS IN PAKISTAN

Pakistan is sixth most populous country in the world and will be fifth by 2050 due to high Population growth rate of 1.9%. TFR is 3.8 which is a major contributor to this situation. Pakistan is one of six countries that account for more than 50% of the world's maternal deaths (Hogan et al. 2010). One of the major reasons leading to this high maternal mortality is high fertility rate and unmet need for contraception. Family planning is considered as one of the four pillars of safe motherhood program for reducing high maternal mortality in developing countries. Every year 8.6 Million women become pregnant and annually 14,000 mothers die due to pregnancy related complications in Pakistan. Supply of services and commodities for FP have declined over the past 5 years by around 7% or by 300,000 married women of reproductive age (MWRA) per year. It shows that the CPR for modern methods has dropped to around 17% as compared to 2011. These factors have negative impact on economic and social development of country. Pakistan being a signatory of MDGs has to achieve the target of three quarter reduction in the maternal mortality ratio (MMR) between 1990 and 2015 which is to bring down the MMR at 140/100,000 Live Births. Although there has been some improvement in MMR in Pakistan according to latest estimates done by UN agencies and World Bank in 2014 yet there is a long way to go for achieving the desired target. There is need to take some concrete steps for reduction in MMR and one of the essential steps is to enhance focus on family planning service provision both at the community and facility level. The evidences show that optimum utilization of contraceptives is effective in bringing Maternal Mortality down by 32% and Child Mortality by 10%. Pakistan government shows a great concern in reducing fertility rate through FP programs aiming 2.1 births per woman by 2020. Reducing unmet need is the primary goal of FP2020. It means that FP demand already exists but partially fulfilled. Demand for FP of big portion of population is unmet.

FP activities were started in Pakistan on limited scale through voluntary organizations in 1955. An independent ministry was assigned to FP program on June 1990. Pakistan pledged at the International Conference on Population and Development at Cairo in 1994 to provide universal access to family planning by 2010. In early days condoms were used for method of contraception but by the time Intra Uterine Device (IUD) replaced it and has become cornerstone. Nearly all FP commodities in Pakistan come from a central warehouse and then supplied to private and public sector. The record of FP commodities is published by the Pakistan Bureau of Statistics. This record of FP commodities/units is very important for calculating CPR as it is calculated on the basis of consumption of contraceptive by converting number of units sold into users. Total number of users during a year can be calculated as

Total Number of Users = (units of Condom sold/100) + (No. of cycles of oral pill/13) + (No. of IUCD inserted) + (No. of injectable vials /5) + (No. of Contraceptive surgery)

CPR is calculated as CPR = (Total No. of Users/ No. of MWRA) * 100

FP services are provided by public and private sector in Pakistan. Public sector provides 35% while services from private sector and self-procurement of commodities account for the remaining 65% of current users. In Pakistan, where per-capita GNP is low, 70% of the population seek healthcare in the private sector. Contraceptives are stored at the Karachi contraceptive ware house which are then distributed to District Population Welfare Offices (DPWOs), PPHI/PRSP, and health department once in a quarter under the supervision of Planning and Development Division, Pakistan. This ware house also delivers contraceptives to nongovernmental organizations (NGOs). Health department through health EDOs issue contraceptives to their respective facilities and LHWs are supplied from health facilities monthly. Private sector activities include services provided by independent healthcare providers or NGOs and independent procurement from stores and pharmacies by individuals. Prominent private sector providers include the Greenstar Social Marketing (GSM), the Marie Stopes Society (MSS) and Rahnuma Family Planning Association of Pakistan (FPAP). A major part of the private sector contribution includes independent procurement of services by end-users from stores and pharmacies.

SITUATION ANALYSIS OF PUNJAB

Punjab is the most populous province of Pakistan with approximately 56% of the country's total population. In 2015, the male population of Punjab is 52.7 million and the female population is 49.0 million (approx.). Punjab has a relatively large health care infrastructure as compared to other provinces. Health care services are provided through a wide network.

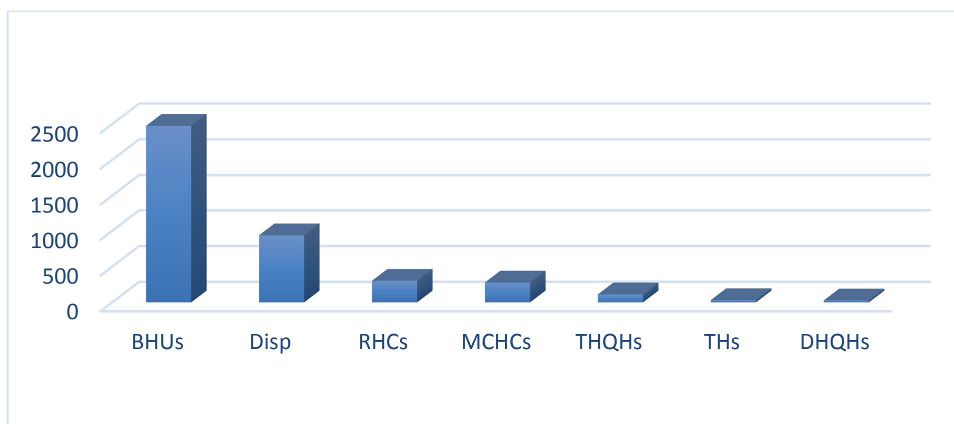

Figure-2 Health care facilities regarding infrastructure

Here BHUs represents basic health units, Disp. denotes the dispensaries, RHCs rural health centers, MCHCs represents the mother child health centers, THQHs represents tehsil head quarter hospitals, THs denotes the teaching hospitals and DHQHs represents the district head quarter hospitals. According to DHIS 2014 annual report, this includes 2476 basic health units, 302 rural health centres, 111 tehsil headquarter hospitals, 27 district headquarter hospitals, 32 teaching hospitals, 278 are mother child health centres and 938 are dispensaries.

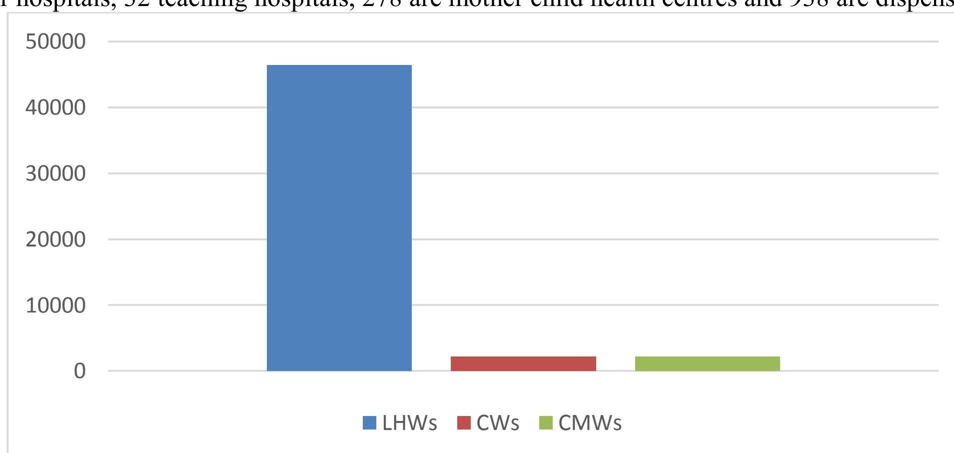

Figure-3 Community health service providers

In figure-3 LHWs represents the lady health workers, CWs denotes the community workers and CMWs represents the community mid wives. Over 46422 lady health workers, 2147 community mid wives and 2171 community workers are providing services across Pakistan.

Family planning services and commodities are provided at public health facilities of health department of Punjab. These commodities are made available at DHQs, RHCs and BHUs. The LHWs manage the Health Houses of the National Program for Family Planning and Primary Health Care. Providing family planning service is mandatory for health facilities and LHWs. They provide advice, pills, condoms, and injectable to women of reproductive age, in their respective communities.

There is need to take some concrete steps for reduction in MMR and one of the essential steps is to enhance focus on family planning service provision both at the community and facility level. The evidences show that optimum utilization of contraceptives is effective in bringing Maternal Mortality down by 32% and Child Mortality by 10%.

More than 200 million women in the country are not using a modern contraceptive method. The reasons for this are many, including lack of access to information and appropriate health services, traditional gender norms that impede women's ability to adopt contraception, husband and relatives opposition, real and perceived concerns about safety and side effects, and cost, among others. Underlying risk perception, including socio-behavioral issues, social costs and ambivalence, may also play a role in demand and use.

CONTRACEPTIVE DELIVERY SERVICES OF PUNJAB

Years	Population of Punjab	Female Population of Punjab	Condoms (Units)	Oral Pills (Cycles)	IUCD (Insertions)	Injectable (Vials)	Con. Surgery (Cases)	FP Users
2010-11	94401000	45580000	29,726,933	1,446,485	463,347	642,741	79,626	1080059
2011-12	95911000	46307000	35,293,845	1,493,212	508,034	506,005	80,109	1157145
2012-13	97446000	47048000	38,718,472	1,533,147	476,805	481,899	66,542	1144846
2013-14	99005000	47801000	39,645,484	1,612,655	482,739	469,100	70,096	1167160

Pakistan Bureau of Statistics (2011, 12, 13, 14), Punjab Development Statistics (2012, 2013, 2014)

Above table provides increase in the use of contraceptives in 2013-14 compared to the year 2011-12. Despite considerable investments in FP during last 5 years, the quantum of public sector services remained unchanged. In health sector Punjab, delivery of contraceptive commodities show different trend.

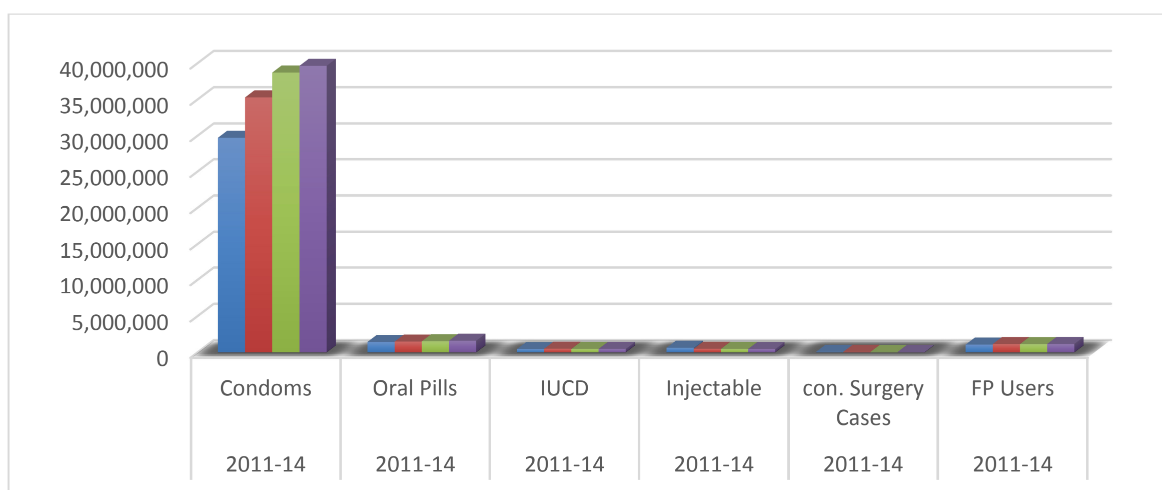

Figure-4 the use of contraceptives in 2013-14 compared to the year 2011-12

Use of condoms and oral pills witnessed 12.3 and 8 per cent increase respectively by 2011 in Punjab. But there is 6.6% drop of IUCDs, Injectable and contraceptive surgeries as compared to 2011 at Punjab level. Since in Punjab, the estimated number of MWRA are increased by 1.3 million women between 2011 and 2014 whereas provision of services to MWRA show falling trend. It points out that a large number of MWRA are not being served with new contraceptive methods showing almost stagnant CPR of Punjab for the last 5 years. Being a signatory of MDGs, Pakistan was supposed to increase CPR from 41 % to 50 % in 2015. A proper action plan for family planning services is required in Punjab.

Department of Health in Punjab is currently implementing several strategies to enhance the quality of care and access to public health services in Punjab. Family planning is considered as one of the four pillars of safe motherhood program for reducing high maternal mortality in developing countries. Recent studies suggested that contraceptive use reduces almost 230 Million births every year and family planning remains as the major primary prevention strategy for unwanted pregnancies (Liu, Becker et al. 2008; Singh, Darroch et al. 2009). According to PDHS 2012-13, contraceptive prevalence rate (CPR) in Pakistan is 35% (Punjab-41%) and unmet need for family planning is 20%. Despite the evident and increasing desire to limit pregnancies, substantial growth in the contraceptive prevalence rate has been lacking.

CONTRACEPTIVE SERVICE DELIVERY AT PUNJAB BY INTEGRATED REPRODUCTIVE MOTHER, NEONATAL AND CHILD HEALTH (IRMNCH) & NUTRITION PROGRAM:

Contraceptive is provided to districts of Punjab through USAID |Deliver Project in collaboration with IRMNCH & Nutrition Program. For this consumption data is generated at Service Delivery Points (SDPs)/ Health facilities by LHSs, CMWs & LHVs. All health facilities send their monthly report to EDO (Health). District staff compiles reports of total demand through Contraceptive Logistics Requisition Form on quarterly basis in consultation with storekeeper of DPWO (District Population Welfare Officer) and sends to Provincial Office of IRMNCH & Nutrition Program. Demand approved is sent to Director of Population Planning Wing (PPW) and

to Central Warehouse Karachi. Supplies from manufacturer / supplier or from port (if imported) are stored at Central Warehouse. Central Warehouse supply contraceptive directly to districts according to their demand because there is no provincial storage currently. The district stores distribute onwards to their service delivery points (facility level) and then to LHSs, CMWs and LHVs. The logistics data generated by the SDPs/health facilities is received on prescribed format and consolidated at the district level and entered into the web-based Contraceptive Logistics Management Information System (CLMIS). Contraceptive Logistic Management Information System is piloted on SDP level in four districts of Punjab: Attock, Lodhran, Khushab and Nankana Sahib. Up till June it will work as pilot and after June 2015 it will be up scaled in all the districts of Punjab.
Data of Family Planning commodities consumed in Punjab Health Facilities, including BHUs, RHCs, and THQ & DHQ Hospitals in 1st quarter of year 2015 was collected from Provincial DHIS. It was processed to find the consumption of commodities and number of FP users served at Health Facilities.

FP COMMODITIES IN ALL HEALTH FACILITIES OF 36 DISTRICTS OF PUNJAB FROM JANUARY TO MARCH 2015

MCBAs (Quarterly)	Total cycles	Total Inject able	Condom Pieces	IUCD	Tub ligation	Vesec-tomy	Implants	Total FP users
3809821	150974	121788.8	1053156	56181	13399	456	3620	120159

It reveals that there are 120159 users served at health facilities of Punjab in first quarter of year 2015.

FAMILY PLANNING COMMODITIES SERVED BY CMWS FROM JANUARY TO MARCH 2015

MCBAs (Quarterly)	Total CMWS	Total cycles	Total Inject able	Condom Pieces	IUCD	Total FP users
3809821	2171	16887	10765	23058	7621	11304

Data of Family Planning commodities consumed by LHWs in the 1st quarter of year 2015 (from January to March 2015) was collected from Provincial LHWs National Program. It was processed to find the district wise consumption of commodities and number of FP users served by LHWs.

FAMILY PLANNING COMMODITIES SERVED BY LHWS FROM JANUARY TO MARCH 2015

MCBAs (Quarterly)	Total LHWS	Total cycles	Total Inject able	Condom Pieces	Total FP users
3809821	46699	951629	349182	2980309	172843

It revealed that there are 172843 users served in first quarter of year 2015.

Discussion

Family planning programs have existed in some form since 1998 in approximately 179 countries, which amounts to 99 percent of the world's population. However in spite of their prevalence all around the globe, birth control methods continue to be criticized and stigmatized, especially in developing countries where issues of poverty, injustice and political unrest divert all attention from family planning. This, alongside the rising waves of religious fundamentalism and the international society chanting slogans of 'Fundamental right of life', means that women wishing to space their pregnancies and hence preserve their health mostly end up endangering their lives by resorting to measures like abortions. As the data suggests that large number of Married Women of reproductive age are not being served with new contraceptive methods and the almost stagnant CPR of Punjab for the last 5 years indicates that much has to be done to achieve the desired goals.

Many couples in developing countries are interested in spacing their children. The easy and wide availability of contraceptive methods and adequate counseling by Health care providers are some measures which need to be taken to effectively meet couples' need for fertility regulation and to help lower fertility levels.

Data shows that only 1167160 women in Punjab are FP users. This means that a large portion of Punjab's population is not benefiting from the Family planning services either consciously or unconsciously. There is a dire need to make people realize that this steep population growth would pose a huge economic burden in the near future; Spacing child-birth and slowing population growth is vital to preserve the resources in a country like ours.

Appropriate economic policies must be in place to realize the economic benefits of moderating fertility. Family planning clinics should be mandatory in all hospitals with staff trained for counseling and providing services.

Suggestions

1. Demand for FP commodities can be increased through multi-sectorial approach. Print and electronic media should launch campaigns for FP services and promotion of contraceptive use. Awareness of FP commodities and the benefits of family planning should be broadcasted via television and radio.
2. It is time to strengthen community mobilization approaches jointly with service delivery through CMWs

and LHWs or social marketing programs. Both can have a substantial effect in increasing knowledge, perception about FP services and removing misconceptions.

3. Seminars can be held at universities and colleges for the promotion of FP commodities and to educate the students.
4. Numberdars and social workers in villages can coordinate with young people to convince them for FP Commodities through interpersonal communication skills. FP services should be provided to village community through them
5. Imam Mosques should be involved and trained for the promotion of FP services as their word is considered trustworthy by many of the rural population. Religious misconceptions should be dealt with.
6. More International Development partners should be invited to invest in FP and cover the rural and isolated population of Punjab because this section of population is more vulnerable being poorer and less literate.
7. Marketing committees can be engaged to report the existing status of FP commodities in order to design and evaluate future demand.
8. Contraception communication strategies are needed within the FP2020 framework as knowledge of contraceptive technologies are often incomplete and inaccurate resulting in confusion and misunderstandings and users have to face opposition of partners and community regarding side effects etc. (Darroch, Sedgh and Ball 2011).
9. Mobile teams of trained staff should be established for provision of long-acting contraceptive methods in a modified vehicle. These mobile teams will access to those who live in remote locations because they are less exposed to many of these interventions and have never previously used any FP.
10. There is need to improve FP supplies and reporting techniques and for this, more attention is needed for contraceptive procurement and supply chain mechanism at teaching/tertiary care hospitals
11. Laws and policies should be formulated that reduce barriers to adolescents accessing contraceptives.
12. FP services delivery to urban slum dwellers and especially to young people is required with substantial investments.
13. FP commodities in accordance with quality assurance should be at affordable and sustainable prices. This is one of the objectives of FP2020.
14. Emerging contraceptive and multipurpose prevention technologies (MPTs): A diverse set of research endeavors will be needed as new technologies enter into clinical trials and pre-introduction studies.
15. The importance of political commitment as a determinant of demand for and use of FP cannot be overstated. Indeed, increasing such commitment is one of FP2020's four objectives. Trends in global and national support for FP are associated with trends in demand for and use of FP (Cleland et al. 2006)
16. Since family planning plays critical role in reducing the maternal mortality so consultative policy dialogue involving all technical experts from government and development partners should be organized.

References

1. Bongaarts, J., J. Cleland, J.W. Townsend, J.T. Bertrand, and M.D. Gupta. 2012. *Family Planning Programs for the 21st Century. Rationale and Design.* New York: The Population Council, Inc.
2. Darroch, J., G. Sedgh, and H. Ball. 2011. *Contraceptive Technologies: Responding to Women's Needs*. New York: Guttmacher Institute.
3. DFID. 2010. *Improving Reproductive, Maternal and Newborn Health: Reducing Unintended Pregnancies. Evidence Overview.* Working Paper (Version 1.0). London, UK: DFID
4. Malarcher, S., O. Meirik, E. Lebetkin, I. Shah, J. Spieler, and J. Stanback. 2011. "Provision of DMPA by community health workers: What the evidence shows." *Contraception* 83:495-503.
5. USAID. 2012. *Reviewing the Evidence and Identifying Gaps in Family Planning Research.* The Unfinished Agenda to Meet FP2020 Goals. Washington, DC: USAID.
6. M. C. Hogan, K. J. Foreman, M. Naghavi et al., "Maternal mortality for 181 countries, 1980–2008: a systematic analysis of progress towardsMillenniumDevelopmentGoal 5,"*TheLancet*, vol. 375, no. 9726, pp. 1609–1623, 2010.
7. Askew, I., Brady, M. 2013. " Reviewing the evidence and identifying gaps in family planning research: The unfinished agenda to meet FP2020 goals," background document for the Family Planning Research Donor Meeting, Washington, DC, 3–4 December 2012. New York: Population Council.
8. Liu, L., S. Becker, et al. (2008). "Three methods of estimating births averted nationally by contraception." Popul Stud (Camb) 62(2): 191-210.
9. Singh S, Darroch J, Ashford L, Vlassoff M. *Adding it up: The costs and benefits of investing in family planning and maternal and newborn health*. New York: Guttmacher Institute and United Nations Population Fund 2009.
10. Cleland, J, Bernstein, S., Ezeh, A, Faundes, A., Glasier, A., & Innis, J. (2006). Family planning: The

unfinished agenda. Lancet 368, 1810-1827
11. Hogan et al. (2010) Maternal mortality for 181 countries, 1980-2008: a systematic analysis of progress towards Millennium Development Goal 5. Lancet 375: 1609-1623.
12. Pakistan - Demographic and Health Survey 2012-2013
13. District Health information System 2014
14. Pakistan Bureau of Statistics (2011, 12, 13, 14),
15. Punjab Development Statistics (2012, 2013, 2014)

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
http://www.iiste.org

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: http://www.iiste.org/journals/ All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: http://www.iiste.org/book/

Academic conference: http://www.iiste.org/conference/upcoming-conferences-call-for-paper/

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library , NewJour, Google Scholar