HTSP 101: Everything You Want to Know About Healthy Timing and Spacing of Pregnancy

Healthy Timing and Spacing of Pregnancy (HTSP) is an intervention to help women and families delay or space their pregnancies to achieve the healthiest outcomes for women, newborns, infants, and children, *within the context of free and informed choice, taking into account fertility intentions and desired family size.*

Background

Over the past few years, the United States Agency for International Development (USAID) has sponsored a series of studies on pregnancy spacing and health outcomes. The research objective was to assess, from the best available evidence, the effects of pregnancy spacing on maternal, newborn and child health outcomes. In June 2005, the World Health Organization (WHO) convened a panel of 30 technical experts to review six USAID-sponsored studies. Based on their review of the evidence, the technical experts made two recommendations* to the WHO, which are included in a report and policy brief[1]:

- *<u>After a live birth</u>, the recommended minimum interval before attempting the next pregnancy is at least 24 months in order to reduce the risk of adverse maternal, perinatal and infant outcomes.*
- *<u>After a miscarriage or induced abortion</u>, the recommended minimum interval to next pregnancy is at least six months in order to reduce risks of adverse maternal and perinatal outcomes.*

What is HTSP?

Healthy Timing and Spacing of Pregnancy (HTSP) is an intervention to help women and families make an informed decision about the delay of first pregnancy and the spacing or limiting of subsequent pregnancies to achieve the healthiest outcomes for women, newborns, infants and children, within the context of free and informed contraceptive choice**,** taking into account fertility intentions and desired family size, as well as the social and cultural contexts.

Qualitative studies conducted by USAID in Pakistan, India, Bolivia, and Peru showed that women and couples are interested in the healthiest time to *become pregnant* versus when to *give birth.* In this way, HTSP differs from previous birth spacing approaches that refer only to the interval after a live birth and when to give birth. HTSP also provides guidance on the healthiest age for the first pregnancy.

Thus, HTSP encompasses a broader concept of the reproductive cycle ─ starting from healthiest age for the first pregnancy in adolescents, to spacing subsequent pregnancies following a live birth, still birth, miscarriage or abortion – capturing *all* pregnancy-related intervals in a woman's reproductive life.

Volunteer health worker reading an HTSP Pocket Guide in Dadaab refugee camp in Kenya (Photo credit: Jennifer Mason)

*WHO is reviewing the technical experts' recommendations and has requested additional analyses to address questions that arose at the 2005 meeting. WHO recommendations will be issued when their review has been completed.

Why HTSP? The Rationale

Multiple studies have shown that adverse maternal and perinatal outcomes are related to closely spaced pregnancies. As shown in Table 1, the risks are particularly high for women who become pregnant very soon after a previous pregnancy, miscarriage, or abortion.

Table 1. Risks of Adverse Health Outcomes After Very Short Interval Pregnancy, Compared to the Reference Group Interval Used in the Selected Study

INCREASED RISKS WHEN PREGNANCY OCCURS 6 MONTHS AFTER A LIVE BIRTH	
Adverse Outcome	**Increased Risk**
Induced Abortion	650%
Miscarriage	230%
Newborn Death (<9 mos.)	170%
Maternal Death	150%
Preterm Birth	70%
Stillborn	60%
Low Birth Weight	60%

INCREASED RISKS WHEN PREGNANCY OCCURS <6 MONTHS AFTER AN ABORTION OR MISCARRIAGE		
	Increased Risk with 1-2 Month Interval	**With 3-5 Month Interval**
Low Birth Weight	170%	140%
Maternal Anemia	160%	120%
Preterm Birth	80%	40%

Sources: Conde-Agudelo, et al, 2000, 2005, 2006; Da Vanzo, et al, 2004; Razzaque, et al, 2005; Rutstein, 2005.

Too long intervals (>5 years) are also associated with adverse health outcomes. Thus, through the promotion of healthy timing and spacing of pregnancy, there is the potential to significantly reduce risks to both mothers and children. HTSP offers:

- *Reduced risks after a live birth:* Short birth to pregnancy intervals less than 18 months and longer than 59 months, had a greater risk for adverse perinatal outcomes, than women delivering 18 to 23 months after a live birth.[2]

- *Reduced risks after a miscarriage or post abortion:* Women delivering singleton infants after becoming pregnant less than six months after a previous abortion or miscarriage had a greater risk for adverse maternal and perinatal outcomes, than women delivering 18 to 23 months after a previous abortion.[3]

Reduced risks for adolescents: The annual global burden of disease report estimates that 14 million adolescent pregnancies happen every year. Sixty percent of married adolescents reported that their first birth was either mistimed or unintended.[4] Compared to older women, girls in their teens are twice as likely to die from pregnancy and child birth-related causes; and their babies also face a 50 percent higher risk of dying before age 1, than babies born to women in their twenties.[5]

Considerable unmet need and demand for spacing still exist in the younger 15-29 age cohorts as well as in postpartum women, as shown in the findings below.

- *Women in younger age cohorts:* Spacing is the main reason for family planning demand among women in younger age groups (15-29). Among married women 29 years or younger who wanted family planning, FP demand for spacing ranged from 66% to over 90%.[6] Data from developing countries also show that younger, lower parity women have the highest demand and need for spacing births. Commonly, between 90% and 100% of the demand for spacing in the 15 to 24 year age cohort, is made up of women with parity of two or less.[7]

- *Postpartum women:* Unmet need for spacing among postpartum women is very high. 95-98% of postpartum women do not want another child within two years – yet only 40% are using family planning.[8] In short, 60% of postpartum women who want to space their pregnancy have an unmet need.

HTSP is an aspect of FP which is associated with healthy fertility and helping women and families make informed decisions about pregnancy spacing and timing to achieve healthy pregnancy outcomes. Family planning (FP) has made great progress in helping women avoid unintended pregnancies. To date, the focus of FP has mostly been on lowered fertility, rather than healthy fertility. Findings from the WHO technical panel support the role of family planning in achieving healthy fertility and healthy pregnancy outcomes.

HTSP is an effective entry point to strengthen and revitalize FP in sensitive settings because it focuses on the mother/child dyad and improved health outcomes for mother and baby. HTSP provides an opportunity to highlight family planning as a preventive intervention using the framework of healthy mothers, healthy babies, healthy families and healthy communities.

From Research to the Field

The Extending Service Delivery (ESD) project, in collaboration with USAID, is currently spearheading an activity to take the evidence from research to the field.

Specifically, ESD is developing a program approach focusing on achieving three HTSP outcomes – (1) healthy pregnancy spacing after a live birth; (2) healthy pregnancy spacing after a miscarriage or induced abortion; and (3) healthy timing of the first pregnancy in adolescents, to delay until age 18, for healthy mother and healthy baby.

The first two HTSP outcomes are based on the two recommendations to WHO from the panel of technical experts. The third outcome was added by USAID to address issues of pregnancy at too early an age – a significant contributor to maternal and infant mortality in many developing countries.

Towards Achieving HTSP Outcomes: The Messages

To achieve HTSP outcomes, three take-home messages have been developed – all to be discussed *in a framework of informed family planning choice, personal reproductive health goals and fertility intention*.

For couples who desire a next pregnancy after a live birth, the messages are:

- For the health of the mother and the baby,[*] wait at least 24 months, but not more than 5 years,[†] before trying to become pregnant again.
- Consider using a family planning method of your choice without interruption during that time.

For couples who decide to have a child after a miscarriage or abortion, the messages are:

- For the health of the mother and the baby, wait at least six months before trying to become pregnant again.
- Consider using a family planning method of your choice without interruption during that time.

For adolescents, the messages are:

- For your health and your baby's health, wait until you are at least 18 years of age, before trying to become pregnant.
- Consider using a family planning method of your choice without interruption until you are 18 years old.

The Interventions

Key HTSP interventions include:

- Advocacy at the policy level;
- Education and counseling of women and families, and linkage to FP services at the service delivery level; and
- Monitoring and evaluation.

Advocacy.

There is significant increased risk for multiple adverse outcomes after short pregnancy intervals. Decision makers must be reached with advocacy and information about HTSP evidence and recommendations from the 2005 WHO technical consultation; DHS data on country-level burden of disease; and HTSP's important role in contributing towards maternal, neonatal and child mortality by reducing adverse maternal and perinatal risks. Country-specific advocacy briefs, developed by ESD, are available at www.esdproj.org.

Education and counseling of women and families, and linkage to FP services.

Recent OR studies indicate that educating and counseling women and families on HTSP is

[*]This message encompasses perinatal, neonatal, and infant health and can be adapted to the context – for example postpartum programs would emphasize perinatal, neonatal and maternal health.

[†]Some technical experts at the 2005 WHO technical consultation felt it was important to note that in birth-to pregnancy intervals of five years or more, there is evidence of increased risk of adverse maternal outcome, namely pre-eclampsia, and adverse perinatal outcomes, namely pre-term birth, low birth weight and small infant size for gestational age.

associated with increased knowledge and use of FP services.[9] To ensure women and couples are informed, educated, and counseled about HTSP, programs need to use every window of opportunity. In addition to FP services, several other service delivery events represent excellent opportunities for HTSP education and counseling – pre-natal visits, post-partum care, well-baby check-ups, infant growth-monitoring sessions and immunization sessions as well as postabortion care services, and PMTCT/VCT/STI counseling sessions. Non-health activities such as youth, literacy, and agriculture are also good venues. Community leaders and religious leaders can also be trained as HTSP champions. Knowledge of service providers should also be increased so that FP plays a role not only in reproductive health, but also in maternal, newborn and child health. To that end, HTSP tools are available at: www.esdproj.org to strengthen HTSP training, education and counseling activities.

Linkage to FP services is critical to achieve HTSP outcomes. Some women and couples may not want to make a decision immediately after education and counseling. Programs need to have a mechanism in place to ensure that these women return for services, have access and choice of a wide range of contraceptive methods, including long-acting and permanent methods (LAPM), or are referred for appropriate FP services including voluntary sterilization for those who wish to limit.

HTSP training materials/curricula provide information on all methods[†], for both spacing and limiting, and on how to probe for fertility intentions, so that providers can refer women for voluntary sterilization if that is appropriate and requested.

Monitoring and evaluation. A 2004 birth spacing programmatic review[10] documents that most FP or maternal-child health (MCH) programs do not formally track birth to pregnancy intervals as a statistic that helps define the overall FP/MCH program success. Over the next few years, ESD will work with the HTSP Champions' Network to monitor and track changes in HTSP trends and knowledge using a tracking matrix. ESD is also developing a list of common HTSP indicators.

[†]Includes information and training on all FP methods including LAPM, voluntary sterilization, probing for fertility intentions and referral to appropriate health facilities for sterilization as requested.

Conclusion

USAID is working in collaboration with WHO and other organizations to integrate HTSP into health and non-health programs. For countries to reduce their burden of disease and reach their Millennium Development Goals, adding HTSP interventions to their strategies and programs should be considered a priority because of significant, multiple health benefits for women and babies.

Prepared by May Post, Extending Service Delivery Project.

Based on the ESD HTSP Strategy, available at www.esdproj.org.

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[2] Conde-Agudelo A., et al., Birth Spacing and the Risk of Adverse Perinatal Outcomes: A Meta Analysis. *Journal of the American Medical Association*, 29, April 2006.
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[9] Minia Village Household Survey; Communications for Healthy Living, Egypt, 2000-2005; PRACHAR Project, Pathfinder/India, 2001-2005; Results of the Household Survey, TAHSEEN/Pathfinder, Egypt, 2003-2005; Promoting Postpartum Contraception: Possible Opportunities, Population Council, New Delhi 2007; Solo et al. (1999), Kenya. Cited in Report of the PAC Technical Advisory Panel, USAID, April 2007. Programs, Communications and Training Materials. POPTECH Publication No. 2003-154-024, 2004.
[10] Jansen, W. and L. Cobb, USAID Birth Spacing Programmatic Review: An Assessment of Country-Level.