

**ESD STRATEGY TO ROLL OUT  
HEALTHY TIMING AND SPACING OF PREGNANCY**



**USAID**  
FROM THE AMERICAN PEOPLE



## **What is ESD?**

The Extending Service Delivery (ESD) Project, funded by the United States Agency for International Development (USAID) Bureau for Global Health, is designed to address unmet need for family planning (FP) and increase the use of reproductive health and family planning (RH/FP) services at the community level, especially among underserved populations, in order to improve health and socioeconomic development. To accomplish its mission, ESD strengthens global learning and application of best practices; increases access to community-level RH/FP services; and improves capacity for supporting and sustaining RH/FP services. ESD works closely with USAID missions to devise tailored strategies that meet the RH/FP service delivery needs of specific countries. A five-year Leader with Associates Cooperative Agreement, ESD is managed by Pathfinder International in partnership with IntraHealth International, Management Sciences for Health, and Meridian Group International, Inc. Additional technical assistance is provided by Adventist Development and Relief Agency International, the Georgetown University Institute for Reproductive Health, and Save the Children.

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## TABLE OF CONTENTS

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TABLE OF CONTENTS.....	2
EXECUTIVE SUMMARY .....	3
I. INTRODUCTION .....	6
II. RECOMMENDATIONS FROM WHO TECHNICAL CONSULTATION.....	7
III. OPERATIONALIZING THE RECOMMENDATIONS FROM THE WHO TECHNICAL CONSULTATION.....	9
IV. WHAT IS HEALTHY TIMING AND SPACING OF PREGNANCY (HTSP)?.....	10
V. RATIONALE FOR HTSP .....	10
VI. GOAL AND OBJECTIVES OF THE ESD HTSP STRATEGY.....	11
VII. THE HTSP STRATEGY .....	12
1. <i>Establish a HTSP Champions Network</i> .....	12
1.1 Form a Core Group .....	12
1.2 Establish a HTSP Champions Network .....	12
1.3 Coordinate HTSP Network Activities .....	13
1.4 <i>Develop Materials and Tools</i> .....	13
2. <i>Reach Key Stakeholders and the Health Community</i> .....	14
3. <i>Strengthen HTSP Roll Out: Key Components of a HTSP Program</i> .....	14
3.1 Bring Evidence to Policy Makers—Advocacy .....	14
3.2.1 Strengthen HTSP Education and Counseling .....	15
3.2.2 Ensure Linkage to FP services .....	16
3.3 Improve Monitoring and Evaluation.....	16
4. <i>Reach Youth</i> .....	18
5. <i>Involve Men</i> .....	18
6. <i>Expand Outreach through the Non-Health Sector</i> .....	18
7. <i>Collaborate with the Private/Corporate Sector</i> .....	18
7.1 Mobilize NGO-corporate partnerships .....	18
7.2 Develop collaborations with private sector networks .....	18
7.3 Collaborate with commercial/corporate sector enterprises .....	19
8. <i>Ensure Sustainability of HTSP Activities</i> .....	19
VIII. CONCLUSION.....	19
IX. ANNEX 1: WHO Policy Brief .....	20
X. REFERENCES.....	23

## EXECUTIVE SUMMARY

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Over the past few years (starting from CATALYST, ESD's predecessor project), USAID has been sponsoring six studies on pregnancy and health outcomes. The primary objective of the research was to critically assess from the best available evidence, and the effects of spacing on maternal and child health<sup>1</sup> outcomes.

In June 2005, USAID supported a WHO technical consultation and submitted the six papers for WHO review of the evidence. Thirty international experts selected by WHO reviewed the evidence and came to a consensus related to specific outcomes. The consultation resulted in a Policy Brief which included two recommendations – one related to spacing after a live birth and the other related to spacing after an abortion - to be read in conjunction with a preamble.

The preamble and recommendations<sup>2</sup> from the WHO technical panel are as follows<sup>3</sup>:

### **Preamble**

Individuals and couples should consider health risks and benefits along with other circumstances such as their age, fecundity, fertility aspirations, access to health services, child-rearing support, social and economic circumstances, and personal preferences in making choices for the timing of the next pregnancy.

### **Recommendation for spacing after a live birth**

After a live birth, the recommended interval before attempting the next pregnancy is at least 24 months in order to reduce the risk of adverse maternal, perinatal and infant outcomes.

### **Recommendation for spacing after an abortion**

After a miscarriage or induced abortion, the recommended minimum interval to next pregnancy is at least six months in order to reduce risks of adverse maternal and perinatal outcomes.

When pregnancies occur (i.e., the timing and spacing of pregnancies) is important for healthy maternal and child outcomes. When a woman becomes pregnant too soon after a birth or too soon after a miscarriage/abortion, both the mother and the newborn face higher risks of complications or even death. Similarly, timing of a first pregnancy is equally important. Research shows pregnant women who are younger than 18 years of age face increased risks of complications for both the mother and the newborn, compared to women 20-24 years.

CATALYST's focus group data conducted in Pakistan, India, Bolivia and Peru showed that women and couples are interested in the *safest time* to become pregnant—they are not interested in optimal intervals (as in OBSI-optimal birth spacing interval). Healthy Timing and Spacing of

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<sup>1</sup> This encompasses perinatal, neonatal, infant and child health.

<sup>2</sup> The recommendations are by the technical experts. WHO is reviewing the recommendations and additional analyses is being done as requested by WHO.

<sup>3</sup> World Health Organization. 2006. Policy brief on Birth Spacing – Report from a World Health Organization Technical Consultation. *WHO Department of Reproductive Health and Research and Department of Making Pregnancy Safer.*

Pregnancy (HTSP) also addresses the timing of first pregnancies in adolescents, which OBSI did not. Additionally, HTSP captures all pregnancy-related intervals – and when to become pregnant - the healthiest time to become pregnant – after a live birth, still birth, miscarriage or abortion – rather than when to give birth.

Family Planning (FP) has made great progress in helping women avoid unintended pregnancies. But FP has not been regarded as an “intervention” to prevent adverse outcomes for mother and baby. Based on all the above factors, and the evidence which supports the association between timing and spacing of pregnancies and reduced adverse risks, HTSP is defined as “***an intervention to help women<sup>4</sup> 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 family planning choice.***”

Unfortunately, the potential health benefits of HTSP are not being fully realized. A 2004 assessment of reproductive health services in 17 countries found that most health workers and health care managers were unaware of the recent evidence documenting the relationship between adverse health outcomes and the timing of pregnancies. The same assessment concluded that health service-delivery networks were universally weak in encouraging HTSP as an important aspect of FP to reduce health risks.

The Extending Service Delivery (ESD) Project is currently spearheading an activity to take the evidence from research to the field. ESD is working to operationalize the two recommendations in the WHO Policy Brief. Specifically, ESD is developing a new program approach focusing on *three messages to be discussed in the context of personal RH goals and fertility intention*. The first two **messages are based on the two WHO recommendations after a live birth and after a miscarriage or abortion; and the third message is related to timing of first pregnancies in adolescents**. The 3<sup>rd</sup> message for adolescents addresses issues of pregnancy at too early an age – a significant contributor to maternal and infant mortality in many developing countries.

The ESD HTSP strategy describes ESD’s effort, with USAID guidance, to “roll out” HTSP and incorporate it within maternal, newborn and child health programs and postabortion care and workplace health services. The ESD project will play catalytic and coordinating roles to implement the strategy, while also providing the technical stimulus and assistance for specific initiatives.

As part of the roll out, a HTSP core group comprised of global projects and select organizations will be established. An initial activity of the HTSP core group is to support ESD with the formation of the Champions Network. The Champions Network will be broad-based and will include for example, field projects, cooperative agencies, non-governmental organizations, networks, alliances, commercial and private sector, and training institutions. Acting as the Coordination Unit/Secretariat of the Champions Network, ESD will support, coordinate and track the Champions Network’s HTSP activities, while assuring that key HTSP work is accomplished and the latest research and information on HTSP is shared with members, over the next 3 years. ESD will support efforts implemented by Network members to incorporate HTSP into ongoing and new programs.

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<sup>4</sup> Mothers and non-mothers

Key components of an effective HTSP program include: advocacy at the policy level; education /counseling of women and families and linkage to FP services at the service delivery level; and monitoring and evaluation.

ESD will use tailored approaches to reach young people and men with HTSP information. Through training non-health sector participants on HTSP, ESD will reach influential community groups including religious leaders, peer educators, teachers, agriculture workers, influential people at the community levels, leaders of women's organizations, community-based NGOs, and youth groups. In addition, ESD will stimulate Network members to mobilize NGO-Corporate Partnerships, help facilitate work with private sector networks, pharmaceutical companies, factories and business coalitions to enable them to educate and counsel their members and employees on HTSP. ESD will ensure sustainability and improve monitoring of HTSP activities through maintaining the Network, working with field programs, cooperating agencies, NGOs and training institutions, involving the private sector and assisting Network members in monitoring changes in HTSP trends and knowledge in their program activities. As dedicated change agents, the HTSP Champions Network can put HTSP at the forefront of global reproductive health.

## I. INTRODUCTION

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Worldwide, pregnancy and childbirth are events associated with significant health outcomes, both positive and negative. Several standard interventions exist to improve maternal, newborn and child health and reduce mortality and morbidity. Among these there is one that is often neglected or incompletely understood: healthy timing and spacing of pregnancies (HTSP).

Women and couples want to know the *safest time* to become pregnant. *When* pregnancies occur (i.e., *timing* and *spacing* of pregnancies) is important for healthy maternal and child outcomes. HTSP is the *timing* of first pregnancies and *spacing* of subsequent ones, (following a live birth, or after a miscarriage or abortion), to help women achieve healthiest pregnancy outcomes. When a woman becomes pregnant too soon after a birth or too soon after a miscarriage/abortion, both the mother and the newborn face higher risks of health complications or even death. Similarly, timing of a first pregnancy is equally important. Research shows pregnant women who are younger than 18 years of age face increased risks of health complications for both the mother and the newborn, compared to women 20-24 years. Healthy timing and spacing of pregnancies, through the correct use of family planning methods, is essential for achieving healthy pregnancy outcomes and improved maternal and newborn health.

*Risks for Mothers:* Analyses based on data from a variety of countries demonstrate that when a woman becomes pregnant too quickly following a previous birth, miscarriage or abortion, she faces higher health risks. One study showed significantly increased risk of maternal death at birth-to-pregnancy (BTP) intervals under 6 months and birth-to-birth (BTB) intervals less than 15 months. At the other end, a 2006 systematic literature review on spacing and maternal health concludes that long intervals, longer than five years, are associated with significantly increased risk of pre-eclampsia.<sup>5</sup> The timing of a woman's first pregnancy is equally important. Research shows that women who are younger than 18 years of age and who become pregnant face increased health risks of complications such as hypertension, cephalopelvic disproportion resulting in prolonged/obstructed labor, and iron-deficiency anemia.

*Risks for Newborns:* A short interval between a birth and the next pregnancy also places the newborn at increased health risk. A child born after a short interval of a previous birth has increased chances of: a pre-term birth; having below normal weight at birth (low birth weight); small for gestational age; and, increased chances of experiencing stunting or underweight conditions during growth in some populations. Likewise, a pregnancy that occurs when a woman is younger than 18 years of age is associated with risk of resulting in a pre-term birth and a low-birth weight infant.

*Role of education and counseling:* Recent OR studies on the programmatic application of birth spacing shows that there is an association between provision of birth spacing education and counseling and increased uptake of family planning. The results of a household survey conducted under CATALYST's program in Egypt showed a 30% to 95% increase in change in

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<sup>5</sup> Conde-Agudelo, A. et al. 2006. "Effect of birth spacing on maternal health: A Systematic Review." *American Journal of Obstetrics and Gynecology*.

knowledge on the birth spacing message. At the same time, CPR increased from 50% to 80% among married women of reproductive age and from 38% to 73% among married low-parity women.<sup>6</sup> The Population Council conducted a study through focus groups and in-depth interviews, of young married couples in Uttar Pradesh, India, to understand the reasons behind early pregnancy and lack of post-partum family planning use despite many couples' desires to space pregnancies. Preliminary study results show that there is an association between provision of birth spacing education and counseling and increase in family planning uptake.<sup>7</sup> Similarly, Pathfinder's Prachar project in India found that use of contraception for delaying the first child increased from 5% to 20% over 4 years in the intervention area, and from 4% to 8% in the control area, when birth spacing education and counseling was provided. The same study found that use of contraception for spacing the second child increased from 14 to 33% in the intervention area and from 10 to 20% in the control area.<sup>8</sup>

## II. RECOMMENDATIONS FROM WHO TECHNICAL CONSULTATION

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Over the past few years (starting from CATALYST, ESD's predecessor project), USAID has been sponsoring six studies on pregnancy and health outcomes:

- One meta-analysis: perinatal outcomes<sup>9</sup>
- One study: miscarriage/abortion & next pregnancy outcomes<sup>10</sup>
- One systematic literature review: maternal health outcomes<sup>11</sup>
- One 17-country analysis of DHS findings: neonatal, infant and under-five mortality<sup>12</sup>
- One country study (Matlab, Bangladesh)<sup>13</sup>
- One meta-analysis: infant/child mortality<sup>14</sup>

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<sup>6</sup> Best Practices in Egypt: Birth Spacing. CATALYST Consortium, Pathfinder International.

[http://www.pathfind.org/site/DocServer/Birth\\_Spacing.pdf?docID=5543](http://www.pathfind.org/site/DocServer/Birth_Spacing.pdf?docID=5543)

<sup>7</sup> M.E. Khan, "Promoting Healthy Timing and Spacing of Pregnancy in India: Programmatic Challenges and Possible Opportunities" Presented at Presentation at Extending Service Delivery Project, Washington, D.C, June 2007.

<sup>8</sup> Promoting change in the reproductive behavior of youth: Pathfinder International's Prachar Project, Bihar India, R Masilamani et al, 2005, available online at [www.pathfind.org/publications](http://www.pathfind.org/publications)

<sup>9</sup> Conde-Agudelo, A. et al. 2006. "Birth Spacing and the Risk of Adverse Perinatal Outcomes: A Meta-Analysis." *The Journal of the American Medical Association*, Vol. 295 No 15, April 19, 2006.

<sup>10</sup> Conde-Agudelo A, J. Belizán, R. Breman, S. Brockman, A. Rosas-Bermudez. 2005. "Effect of the interpregnancy interval after an abortion on maternal and perinatal health in Latin America." *International Journal of Gynecology and Obstetrics*, April (Vol. 89, Supplement 1), S34-S40.

<sup>11</sup> Conde-Agudelo, A. et al. 2006. "Effect of birth spacing on maternal health: A Systematic Review." *American Journal of Obstetrics and Gynecology*.

<sup>12</sup> Rutstein, S. 2005. "Effects of proceeding birth intervals on neonatal, infant and under-five years mortality and nutritional status in developing countries: evidence from the demographic and health surveys." *International Journal of Gynecology and Obstetrics*, April (Vol. 89, Supplement 1), pages S7-S24.

<sup>13</sup> DaVanzo, Julie, Lauren Hale, Abdur Razzaque, and Mizanur Rahman. 2007 (in press). "Effects of Interpregnancy Interval and Outcome of the Preceding Pregnancy on Pregnancy Outcomes in Matlab, Bangladesh." *BJOG (British Journal of Obstetrics and Gynecology)*.

<sup>14</sup> Rutstein S, Johnson K and Conde-Agudelo A. *Systematic Literature Review and Meta-Analysis of the Relationship between Interpregnancy or Interbirth Intervals and Infant and Child Mortality*. Report submitted to the CATALYST Consortium, October 2004.

The primary objective of the research was to critically assess from the best available evidence, the effects of spacing on maternal and child health<sup>15</sup> outcomes.

In June 2005, USAID supported a WHO technical consultation and submitted the six papers for WHO review of the evidence. Thirty international experts selected by WHO reviewed the evidence and came to a consensus related to specific outcomes.

The consultation resulted in a Policy Brief which included two recommendations from the panel of experts—one related to spacing after a live birth and the other related to spacing after an abortion—to be read in conjunction with a preamble.

The preamble and recommendations<sup>16</sup> from the WHO technical consultation are as follows:<sup>17</sup>

**Preamble**

Individuals and couples should consider health risks and benefits along with other circumstances such as their age, fecundity, fertility aspirations, access to health services, child-rearing support, social and economic circumstances, and personal preferences in making choices for the timing of the next pregnancy.

**Recommendation for spacing after a live birth**

After a live birth, the recommended interval before attempting the next pregnancy is at least 24 months in order to reduce the risk of adverse maternal, perinatal and infant outcomes.<sup>18</sup>

**Recommendation for spacing after an abortion**

After a miscarriage or induced abortion, the recommended minimum interval to next pregnancy is at least six months in order to reduce risks of adverse maternal and perinatal outcomes.

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<sup>15</sup> This encompasses perinatal, neonatal, infant and child health.

<sup>16</sup> The recommendations are by the technical experts to WHO. WHO is reviewing the recommendations and additional analyses is being done as requested by WHO.

<sup>17</sup> World Health Organization. 2006. Policy brief on Birth Spacing – Report from a World Health Organization Technical Consultation. *WHO Department of Reproductive Health and Research and Department of Making Pregnancy Safer.*

<sup>18</sup> Some participants at the 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 pre-eclampsia, and some adverse perinatal outcomes, namely pre-term birth, LBW and small infant size for gestational age.

### III. OPERATIONALIZING THE RECOMMENDATIONS FROM THE WHO TECHNICAL CONSULTATION

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The Extending Service Delivery (ESD) Project is currently spearheading an activity to take the evidence from research to the field. ESD is working to operationalize the two recommendations in the WHO Policy Brief. Specifically, ESD is developing a new program approach focusing on three take-home messages to be discussed in the context of personal RH goals and fertility intention: two messages based on the two WHO recommendations after a live birth and after a miscarriage or abortion and a third message related to timing of first pregnancies in adolescents, keeping in mind, the risks to mothers and newborns associated with adolescent pregnancies. The 3<sup>rd</sup> message for adolescents addresses issues of pregnancy at too early an age—a significant contributor to maternal and infant mortality in many developing countries.<sup>19</sup>

The three take home messages are as follows—all to be discussed in a framework of free and informed choice:

**For couples who decide to space their next pregnancy after a live birth, the messages are:**

- For the health of the mother and the baby,<sup>20</sup> wait a minimum of 2 years, but not more than 5 years,<sup>21</sup> before trying to become pregnant again.
- Use a family planning method of your choice 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 newborn, wait a minimum of six months before trying to become pregnant again.
- Use a family planning method of your choice for six months before trying to become pregnant again.

**To protect the health of both the mother and the baby, the messages for adolescents are:**

- For your health and your baby's, wait until you reach 18 years of age before trying to become pregnant.
- Use a family planning method of your choice until you reach 18 years of age.

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<sup>19</sup> McCauley A.P, and Salter, C. October, 1995. "Meeting the Needs of Young Adults." *Population Reports*, Series J, No. 41, Volume XXIII. Population Information Program, Center for Communication Programs, Johns Hopkins School of Public Health, Baltimore, MD. Available at: <http://www.infoforhealth.org/pr/j41edsum.shtml#top>. And, Conde-Agudelo, A., J. Belizán and C. Lammers. 2005. "Maternal-perinatal morbidity and mortality associated with adolescent pregnancy in Latin America: Cross-sectional study." *American Journal of Obstetrics and Gynecology*, Vol. 192, 342–9.

<sup>20</sup> This message encompasses perinatal, neonatal, infant and child health and can be adapted to the context --- for example postpartum programs would emphasize perinatal, neonatal and maternal health.

<sup>21</sup> Some participants 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 pre-eclampsia, and adverse perinatal outcomes, namely pre-term birth, low birth weight and small infant size for gestational age.

## **IV. WHAT IS HEALTHY TIMING AND SPACING OF PREGNANCY (HTSP)?**

When pregnancies occur (i.e., timing and spacing of pregnancies) is important for healthy maternal and child outcomes. CATALYST’s focus group data conducted in Pakistan, India, Bolivia and Peru showed that women and couples are interested in the *safest time* to become pregnant—they are not interested in optimal birth intervals (as in OBSI-optimal birth spacing interval). Healthy Timing and Spacing of Pregnancy (HTSP) also addresses the timing of first pregnancies in adolescents, which OBSI did not. Additionally, HTSP captures all pregnancy-related intervals – and when to become pregnant- *the healthiest time to become pregnant* – after a live birth, still birth, miscarriage or abortion – rather than when to give birth.

FP has made great progress in helping women avoid unintended pregnancies. But FP has not been regarded as an “intervention” to prevent adverse outcomes for mother and baby.

Based on all the above factors, and the evidence which supports the association between timing and spacing of pregnancies and reduced adverse risks, HTSP is defined as “***an intervention to help women<sup>22</sup> 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 family planning choice.***”

## **V. RATIONALE FOR HTSP**

HTSP provides an opportunity to highlight family planning as a health intervention using the framework of healthy mothers, healthy infants, and healthy communities. Men, religious and community leaders, and others, who were initially resistant to FP but eager to keep their families healthy, have valued counseling and training on HTSP and have become HTSP champions in their communities.

Unfortunately, the potential health benefits of healthy timing and spacing of pregnancies are not being fully realized. A 2004 assessment of reproductive health services in 17 countries found that most health workers and health care managers were unaware of the recent evidence documenting the relationship between adverse health outcomes and the timing of pregnancies. The same assessment concluded that health service-delivery networks were universally weak in encouraging healthy timing and spacing of pregnancies as an important intervention of reducing health risks.<sup>23</sup>

At the same time, short birth intervals continue to be seen in substantial numbers in a wide range of countries where the majority of non-first births in developing countries occur after too short an interval. For women in younger age cohorts, spacing is the main reason for any demand for contraceptive use. Among married women 29 years or younger, the portion of the total demand

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<sup>22</sup> Mothers and non-mothers

<sup>23</sup> Jansen, W. and L. Cobb. 2004. USAID Birthspacing Programmatic Review: An Assessment of Country-Level Programs, Communications and Training Materials. Population Technical Assistance Project, POPTECH publication No. 2003-154-024. Washington, D.C.

for family planning for spacing range from 66% to over 90% in many countries.<sup>24</sup> 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.<sup>25</sup> There is even existing demand for postponing the first birth among young zero-parity married women. Clearly, opportunities have been missed to include pregnancy timing and spacing within child survival, maternal/neonatal health, postabortion care and workplace health programs. Much needs to be done to incorporate HTSP services within health care programs. The strategy below describes ESD's effort with USAID guidance and support to "roll-out" HTSP and incorporate pregnancy spacing within child survival, maternal/neonatal health, postabortion care and workplace health programs.

## **VI. GOAL AND OBJECTIVES OF THE ESD HTSP STRATEGY**

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The overall goal of the ESD HTSP strategy is to facilitate sustainable commitment and engagement of partners globally to roll out healthy timing and spacing of pregnancy and incorporate it within a wide range of programs, to achieve healthy pregnancy outcomes, and ultimately reduce maternal and newborn mortality and morbidity.

Objectives include:

- Increase awareness of HTSP among decision makers, program managers, practitioners and leaders in health and non-health sectors and the community
- Galvanize action to promote and adopt HTSP as a critical component in national health agendas aimed at addressing maternal and newborn mortality and morbidity
- Strengthen incorporation of HTSP at all levels and within health and non-health programs (RH/FP programs, maternal newborn health programs, child survival programs and workplace programs)
- Mobilize NGO-Corporate partnerships to provide support for HTSP
- Provide information on HTSP to women and couples who choose to time and space, help them make informed decisions that support their RH/FP goals, and link them to FP services to achieve their fertility intention and spacing preference.

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<sup>24</sup> Jansen, W. 2004. "Existing Demand for Birth Spacing in Developing Countries: Perspectives from Household Survey Data." *International Journal of Obstetrics and Gynecology*, April Vol. 89, Supplement 1 (April), S50-S60.

<sup>25</sup> Jansen, W. and L. Cobb. 2004. USAID Birthspacing Programmatic Review: An Assessment of Country-Level Programs, Communications and Training Materials. Population Technical Assistance Project, POPTECH publication No. 2003-154-024. Washington, D.C.

## **VII. THE HTSP STRATEGY**

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### **1. Establish a HTSP Champions Network**

#### ***1.1 Form a Core Group***

A small number of member organizations will be initially invited and recruited to form an early action group or “core” group. *Potential* members for the core group include global projects such as ESD, ACCESS, BASICS, HaRP/Global Research Activity), ACCESS-FP, FRONTIERS, ACQUIRE, the Health Communication Partnership (HCP) project, as well as select members of the community that the CATALYST Project assembled for the Optimal Birth Spacing Initiative (OBSI) such as the Child Survival Technical Support Plus project (CSTS+), the CORE group and the White Ribbon Alliance. These global projects have extensive technical expertise in RH/FP, maternal/ newborn health and child health, and are active in the health sectors of many developing countries. Partnering with BASICS, for example, will help link ESD with child survival programs. Likewise, collaboration with the HCP project will expand ESD’s communication efforts related to HTSP. An initial focus of the HTSP core group however, will be to support ESD with the establishment of the Champions Network by identifying interested organizations, and recruiting/informing their partner organizations/affiliations about the Network and adding their names to a list serve to be developed and maintained by ESD. The core group will also play a major role in stimulating commitment and mobilizing support among its partner organizations and affiliations, and support ESD in “rolling out” HTSP to increase awareness of the positive role of HTSP in maternal and newborn mortality and morbidity reduction.

#### ***1.2 Establish a HTSP Champions Network***

Network membership will be broad-based and inclusive of USAID field programs including bilateral projects, CAs and organizations that can make a difference in RH/FP, maternal/newborn health and child health. Examples include ESD partner CAs such as Pathfinder, MSH, IntraHealth, Meridian and IRH/Georgetown University. Many of these CAs are implementing bilateral health projects globally. As CAs become active within the HTSP Network, they can incorporate HTSP within the bilateral projects they implement.

Likewise, private/commercial sector organizations will be critical members in the HTSP network. For example, pharmaceutical networks, private midwives associations, private physicians’ associations can be effective channels for raising awareness about HTSP. The network will also benefit from involvement of PVOs/NGOs who can reach vulnerable populations, as well as from involvement of training institutions through which HTSP can be integrated starting from the pre-service curricula. ESD will rely on the collective, cascade effort of all Network members to roll-out HTSP.

An initial activity after the establishment of a Champions Network will be to organize a Champions Network meeting to provide network members with technical updates of member activities, and present pertinent research findings and data concerning the contributions HTSP

can make to reduce mortality and morbidity risks, especially in relation to perinatal and neonatal health. The Champions meetings will be organized annually.

### ***1.3 Coordinate HTSP Network Activities***

Any activity involving the combined efforts of multiple organizations needs a central point for coordination. ESD will coordinate HTSP efforts, assuring that key incremental HTSP work is completed and findings and information shared with HTSP Network members. For example, ESD will support generation of new knowledge, assist in organizing and disseminating new knowledge and support publication of new knowledge in peer review journals. Other activities include: developing and disseminating a quarterly HTSP e-newsletter; establishing a HTSP Page on the ESD web site and regularly post HTSP related materials, updates, country activities, best and promising practices on the HTSP page; serve as a HTSP information clearing house; and track HTSP changes as a result of the roll-out in ESD focus countries and core member countries. ESD will act as the Coordinating Unit/Secretariat of the Champions Network, tracking the Network activities as a result of HTSP roll out, over the next 2-3 years.

### ***1.4 Develop Materials and Tools***

Recent information indicates that, in many countries, little information about the specific health risks associated with the timing and spacing of pregnancies is included in communication and counseling materials for providers or clients.

To do so, ESD will develop materials and tools that can be used by partners to add HTSP education, counseling and training to their activities. ESD will also take the lead to translate the WHO technical recommendations/guidance into take-home messages which are user-friendly and field friendly, for use by service providers in their interaction with clients.

*Illustrative* examples of materials and tools include: (1) the HTSP two-pager developed for promotional purpose; (2) the HTSP strategy paper; (3) country-specific briefs with country-specific RH/FP related data and programmatic implications for HTSP; (4) HTSP pocket guide/Brief that provides the risks, key health benefits of HTSP and general information and messages; (5) a community based postpartum family planning training manual and an accompanying counseling tool kit (in collaboration with ACCESS-FP) that includes counseling cards, a client-provider-interaction guideline (perhaps in the form of a small, desk-top flip chart) that aids in informing the client about specific health risks, HTSP options and facilitates a question-answer dialogue; and (6) a HTSP trainers' reference guide.

The generic tools can be adapted to conform to country-specific needs. ESD will also work with partner organizations and projects and provide technical support in the development of their materials and tools to integrate HTSP information into partner activities.

## **2. Reach Key Stakeholders and the Health Community**

In partnership with other HTSP core group members, ESD will organize/coordinate/assist in (1) information exchange forums; (2) round tables; (3) pregnancy spacing panels; (4) working groups, whenever appropriate, to reach key stakeholders and the health community with HTSP education and information. These activities will be piggybacked on international and regional conferences such as GHC, MotherNewBorNet, APHA, FIGO, SAGO, FLASOG, etc. ESD will also provide technical assistance as requested for country-level HTSP workshops and assist in incorporating HTSP information into existing information materials, guidelines, protocols, curricula, and other strategic communication efforts implemented by Network members. ESD will rely on support from a core group member—the Health Communication Partnership (HCP), in the communication effort. All these activities can play an important role in gaining the support needed to *launch a new* HTSP effort, or strengthen and *expand an ongoing* active HTSP program.

## **3. Strengthen HTSP Roll Out: Key Components of a HTSP Program**

For the HTSP strategy to be successful, activities must involve all levels. Key components of a HTSP program include:

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

### ***3.1 Bring Evidence to Policy Makers—Advocacy***

Health policies often mention birth spacing and relate birth spacing to general well-being; however, many national policies do *not* clearly link timing and spacing of pregnancies with mortality or morbidity reduction in women and children. If the contribution that HTSP can potentially make to mortality and morbidity reduction is to be realized, policies need to clearly recognize the role of FP and pregnancy spacing in mortality reduction. Policy dialogue efforts to support HTSP as an essential aspect of FP to prevent low birth weight and pre-term births and help women achieve healthy pregnancy outcomes leading towards reduction in maternal, neonatal and child mortality, will be critical. For example, HTSP education and counseling should be included within child-survival policies, along with standard child-mortality-reducing interventions such as immunizations, treatment of acute respiratory infections or malaria control.

Policies should also clearly acknowledge the segments of the population (e.g., married women 29 years or younger whose main reason for FP demand is spacing) that can most benefit from HTSP. There may also be opportunities to incorporate HTSP elements within other policies. For example, policies or guidelines for youth programs, HIV/AIDS services, or refugee and internally displaced populations could include HTSP components.

To support policy dialogue efforts, ESD will reach decision makers and support partners to reach decision makers with advocacy, information and presentations highlighting (a) HTSP evidence

and recommendations from the 2005 WHO technical consultation and (b) DHS data on country-level burden of disease as well as mortality/morbidity risks of not timing and spacing pregnancies. ESD will also work with for example, the Health Policy Initiative (HPI) project, to help develop advocacy tools and expand the role of HTSP at the policy level.

### 3.2.1 Strengthen HTSP Education and Counseling

Recent OR studies indicate that educating and counseling women and families on HTSP is associated with increased knowledge and use of FP services (*see page 6 Role of education and counseling*).

Strengthening HTSP education and counseling activities at the service delivery level will be a key component of the HTSP strategy. To that end, ESD will develop the following tools to strengthen HTSP education and counseling.

**Counseling toolkit:** ESD will update/revise the *counseling toolkit* developed under CATALYST. The toolkit includes counseling cards, job aids, and other materials in simple language and concepts, for demonstration, information and education among RH/ FP/MCH service providers. A possible new tool in the tool kit will be a client-provider-interaction guideline/desktop flipchart that will aid the provider in informing the client about specific health risks, HTSP options to address the risks, and facilitate a question-answer dialogue. The counseling toolkit will be developed in collaboration with ACCESS-FP as part of the postpartum family planning counseling toolkit. Counseling will focus on information to help a woman and her husband/partner make informed decisions about HTSP that support their RH/FP goals and fertility intention. It will also include information on return to fertility, risks to mother and infant of intervals that are too close, benefits of healthy pregnancy timing and spacing, risk of FP discontinuation, information on the methods and all the choices that are available, and timing of first pregnancies in adolescents. Guidance that can respond to the HTSP needs of young, low-parity women will also be highlighted.

**Other tools:** HTSP benefits and information have not yet been considered part of standard maternal, neonatal health and child health strategies to reduce maternal and child mortality and morbidity. If HTSP education/counseling is to become an integral part of these strategies, HTSP information need to be added to existing training curricula and service delivery protocols. To do so, a standard *HTSP trainers' reference guide* will be necessary to train service providers and strengthen service delivery standards. With that in mind, ESD will revise/update the OBSI trainer's guide developed under CATALYST. The revised/updated HTSP trainers' reference guide will reflect current research findings and highlight the contribution that HTSP can potentially make to mortality and morbidity reduction. In close collaboration with GU/IRH and ACCESS-FP, a *training manual for community based postpartum family planning (CBPPFP)* incorporating HTSP will also be developed. A HTSP *pocket guide* is already available.

These tools (the HTSP trainers' guide, the CBPPFP training manual, the counseling toolkit, the pocket guide/brief) will be made available to any program/organization interested in adding HTSP to their program, and strengthening HTSP education and counseling interventions.

ESD will also work with partners and provide technical support as requested to incorporate HTSP into partner advocacy tools, service delivery guidelines, training activities and field activities.

Several service delivery events represent excellent opportunities for HTSP education and counseling, such as: pre-natal visits, post-partum care, well-baby check-ups, infant growth-monitoring sessions and immunization sessions as well as PAC services, FP and HIV/AIDS/STI counseling sessions. Previous efforts of the CATALYST Project using all service delivery points – health and non-health - as “*windows of opportunities*” for counseling and communications and service-delivery will be built upon and expanded.

Quality of HTSP service delivery will also be critical. Commonly applied quality of care standards have already developed for RH/FP services—such as Performance Improvement Protocols for Service Providers and Management Tools (e.g., trainers' reference tools, supervisory checklists). Where feasible and as requested, these standards will be updated by ESD to include HTSP and to improve quality of HTSP service delivery.

### 3.2.2 Ensure Linkage to FP services

Also at the service delivery level, ensuring linkage to FP services will be a critical component of an HTSP program. Some women and couples may not want to make a decision immediately after education and counseling. ESD will highlight the importance of programs having a mechanism in place to ensure that these women return for services or are referred to an appropriate FP facility in their community.

A client's ability to achieve her fertility intention, spacing preference and RH/FP goal depends on her having accessibility to FP resources and providers for services and supply, referral, and follow-up care.

### 3.3 Improve Monitoring and Evaluation

A 2004 USAID birth spacing programmatic review identifies the need for a commonly used sector-level indicator across countries to monitor the status of birth spacing.<sup>26</sup> The review documents that *most FP or MCH programs do not formally track birth to pregnancy intervals as a statistic that helps define the overall FP/MCH program success.*

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<sup>26</sup> Jansen, W. and L. Cobb. 2004. USAID Birthspacing Programmatic Review: An Assessment of Country-Level Programs, Communications and Training Materials. Population Technical Assistance Project, POPTECH publication No. 2003-154-024. Washington, D.C.

Common indicators are essential for general understanding of the HTSP problem and measuring widely recognizable change over time. The authors recommend, “Birth to pregnancy intervals should be added to the list of indicators regularly used to measure MCH program and health sector performance over time.”

ESD will bring the importance of the need for HTSP related M&E to the attention of HTSP Network members. The areas to be addressed, based on the recommendations from the 2004 USAID birth spacing programmatic review include the following: (1) add birth-to-pregnancy intervals to the list of existing indicators focusing on the women that surveys consistently show are most in need of pregnancy spacing – i.e., 15-29 year olds; (2) use age-specific (15-19, 20-24, 25-29) birth interval indicators (rather than an aggregated indicator for 15-29), so that programs may be better informed and positioned to respond to differing service delivery needs within younger client populations; (3) for the 15-19 age cohort, add an additional indicator, “age at first birth” i.e., number of births per 1000 women aged 15-19 years; and (4) inform/ encourage programs to regularly use birth interval statistics as a measure of program success – for e.g., percentage of births spaced by birth interval, disaggregated by age (15-19, 20-24, 25- 29 will be the most important); and neonatal and infant mortality rates by birth interval.

Training and workshops for health statistic units within service delivery networks may be required before these indicators can be widely collected, analyzed, and used.

HTSP Tracking Matrix: Over the next 5 years, ESD will monitor and track status of needed changes (in policies, counseling tools, training guidelines, etc) related to timing and spacing of pregnancy activities. ESD will develop a tracking matrix which includes illustrative examples of preferred end results due to HTSP activities that are being implemented such as: pregnancy timing and spacing included in policies and frameworks; training curricula modified to incorporate or strengthen HTSP content; service delivery standards, training guidelines, counseling tools updated with information linking HTSP to mortality and morbidity reduction; communication tools with inclusion of HTSP *and* related risks; service delivery programs adopting or using new HTSP content in communication and counseling; service delivery programs into which HTSP counseling, education and services have been introduced or strengthened; change in the number of clients receiving counseling services that include information on HTSP and risks; change in no. of private practitioners offering HTSP counseling; change in knowledge (service providers, community) of benefits and risks related to HTSP; change in the number of clients receiving contraceptive methods for spacing purposes; etc.

ESD will also provide technical assistance to monitor these changes in ESD partner countries and select ESD network member countries. Specifically, ESD will work with/provide technical assistance to ESD partners and HTSP network members to enable them to monitor and track changes in HTSP trends and knowledge in the activities they are implementing.

## **4. Reach Youth**

ESD will apply the CATALYST/TAHSEEN best practice to reach youth with HTSP information. Ministries of education, youth organizations, community groups, religious groups, the press, entertainment media (e.g., plays, puppet shows) and others will be mobilized by ESD to play a role in reaching out to youth and increasing their awareness of HTSP. Mobilizing support for HTSP should be both expansive and inclusive.

## **5. Involve Men**

Another area of need is the array of barriers that women often face in exercising their choice for the timing and spacing of pregnancy. This may be particularly true for coping with the pressures surrounding the timing of a first pregnancy. ESD will use known and proven practices to reach and involve men, and provide them with information on risks associated with *not* timing and spacing pregnancy, as well as health benefits of timing and spacing pregnancy.

## **6. Expand Outreach through the Non-Health Sector**

Building upon the CATALYST/TAHSEEN experience, training in HTSP information provision will comprise not only the health sector and health practitioners, but the non-health sector as well. ESD will train participants from the non-health sector to provide health information on HTSP. Non-health players include religious leaders, peer educators, teachers, agriculture workers, influential people at the community levels, leaders of women's organizations, community-based NGOs, youth groups and other interested groups.

## **7. Collaborate with the Private/Corporate Sector**

### ***7.1 Mobilize NGO-corporate partnerships***

NGO-Corporate partnerships may be an important source of support for HTSP work both at the country and multi-national level. HTSP's positive contribution to maternal and newborn mortality and morbidity reduction, could appeal to the corporate sense of social responsibility. If HTSP becomes a focus of corporate support, more resources will hopefully be available for HTSP program work, including contraceptive security. Mobilizing NGO-Corporate partnerships *will require the collective efforts of all the HTSP Network members*. ESD will play catalytic and coordinating roles while providing the technical support, materials and tools as required, to stimulate Network members to become effective HTSP advocates for mobilizing NGO-Corporate Partnerships.

### ***7.2 Develop collaborations with private sector networks***

ESD will collaborate with and provide technical support (e.g., counseling tools, technical materials) to private sector networks (private practitioners, pharmacists, midwives), private pharmaceutical companies or distributors, to enable them to educate and counsel their clients about HTSP while they provide their services or sell their contraceptive products.

### ***7.3 Collaborate with commercial/corporate sector enterprises***

ESD will reach and collaborate with factories/business industries/business coalitions to: (1) raise their awareness about HTSP and its important role in achieving healthy pregnancy outcomes and maternal and newborn mortality reduction, emphasizing the linkage between HTSP and decreased absenteeism and increased productivity; and (2) provide technical assistance to incorporate HTSP messages into their media and communication tools and workplace health communication materials.

## **8. Ensure Sustainability of HTSP Activities**

Establishing and maintaining a Champions' Network consisting of USAID global projects, CAs and bilateral programs, and PVOs/NGOs and training institutions will be an important step to ensuring sustainability. Network members bring unique expertise and can play unique roles to ensure sustainability. For example, USAID's global projects and field programs represent the bulk of the Agency's investments in health development worldwide. USAID's field programs in health reflect host-country health policies and priorities, and integrating HTSP within field programs will help promote and sustain HTSP recommendations at the country level. CAs are involved in implementing field programs. CAs with a field presence can also become HTSP advocates in their dialogue with field Missions, host-country counterparts and other donor agencies not only to incorporate HTSP in the programs they are implementing but within host country health policies and frameworks and programs of other donor agencies. PVOs/NGOs can reach vulnerable populations and can rapidly expand services because they operate with great flexibility. Similarly, working with training institutions will result in better integration of HTSP starting from the pre-service training curricula, compared to in-service where there is frequent turnover. Likewise, private/commercial sector involvement with private networks of midwives/pharmacists/physicians, NGO-Corporate partnerships, business coalitions/corporations can play unique roles in ensuring sustainability.

## **VIII. CONCLUSION**

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Fostering change is not easy. Change does not happen just because evidence shows it is beneficial. Five factors have been identified that effect successful change: a dedicated change agent; clarity on purpose and anticipated results; motivation and ongoing support of staff; clearly assigned and accepted responsibility; and an environment that encourages change. The new idea either finds a champion/dedicated change agent, or dies. The network members can be those champions. (Quoted from "The Missing Link: Leading Changes in Practices to Improve Health," by J. Dwyer and R. Jacobstein)



## Birth spacing – report from a WHO technical consultation<sup>1</sup>

The World Health Organization (WHO) and other international organizations recommend that individuals and couples should wait for at least 2–3 years between births in order to reduce the risk of adverse maternal and child health outcomes. Recent studies supported by the United States Agency for International Development (USAID) suggest that an interval of 3–5 years might help to reduce these risks even further. Programme managers responsible for maternal and child health at the country and regional levels have requested WHO to clarify the significance of the new USAID-supported findings for health-care practice.

To review the available evidence, WHO, with support from USAID, organized a technical consultation on birth spacing on 13–15 June 2005 in Geneva, Switzerland. The participants included 35 independent experts as well as staff of the United Nations Children's Fund (UNICEF), WHO and USAID. The specific objectives of the meeting were to review evidence on the relationship between different birth-spacing intervals and maternal, infant and child health outcomes, and to provide advice on recommended birth-spacing intervals.

### Method of review and findings of the consultation

Prior to the meeting, USAID submitted to WHO for review six unpublished, draft papers emanating from studies the Agency had supported on birth spacing. These, along with a supplementary paper (also unpublished at the time), served as background papers for the technical consultation.

WHO sent the six draft papers to a selected group of experts, and received a total of 30 reviews. The reviewers' comments were compiled and circulated to all meeting par-

ticipants. At the meeting, the authors of the background papers presented their findings, and selected discussants presented the consolidated set of reviewers' comments, including their own observations. Together, the draft papers and the various commentaries constituted the basis for the consultation's deliberations.

The background papers<sup>2</sup> (see list on the back page of this policy brief) were based on studies that had used a variety of research designs and data analysis techniques. The meeting participants noted that the length of the intervals analysed and the terminology used in the papers varied

considerably, making it difficult to compare the results. They therefore agreed to use “birth-to-pregnancy interval” as a standard term in making their recommendations. Specifically, this term refers to the interval between the date of a live birth and the start of the next pregnancy.

The participants discussed the strengths and limitations of the studies, identified areas requiring further work and requested the authors to conduct additional analyses and research. The authors are currently responding to the reviewers’ questions and undertaking the requested analyses. They are to revise their papers and resubmit them to WHO for a second review, following which WHO will issue a supplementary report.

### Conclusions and recommendations

The group came to separate conclusions for the different health outcomes considered, i.e. one on birth spacing after a live birth, and one on birth spacing after an abortion. Details of the discussions, the process of achieving final agreement on the recommendations and the necessary caveats are documented in detail in the full report.

The participants emphasized that their recommendations (in bold below) must be read in conjunction with the following pre-amble:

*In choosing the timing of the next pregnancy, individuals and couples should consider health risks and benefits along with other circumstances such as their age, fecundity, fertility aspirations, access to health-care services, child-rearing support, social and economic circumstances, and personal preferences.*

#### **Recommendation for spacing after a live birth**

- **After a live birth, the recommended interval before attempting the next pregnancy is at least 24 months in order to reduce the risk of adverse maternal, perinatal and infant outcomes.**<sup>3</sup>

#### **Recommendation for spacing after an abortion**

- **After a miscarriage or induced abortion, the recommended minimum interval to next pregnancy should be at least six months in order to reduce risks of adverse maternal and perinatal outcomes.**

*Caveat.* The recommendation on spacing after an abortion is based on one Latin America study that examined hospital records of 258 108 women (delivering singleton infants) whose previous pregnancy had ended in an abortion. Because this was the only available study of this scale, it was considered important to use its findings, but with some qualifications. Abortion events in the study were of three types: safe abortion, unsafe abortion and spontaneous pregnancy loss (miscarriage). The relative proportion of each of these types was unknown. The study sample was taken from public hospitals only, with much of the data coming from only two countries (Argentina and Uruguay). Thus, the results may neither be generalizable within the Latin American region nor applicable to other regions, which have different legal and service contexts and conditions. Additional research was recommended to clarify these findings.

### Suggestions for future research

The consultation made the following suggestions for further research in the area of birth spacing:

- Coherent theoretical frameworks need to be developed that can explain and analyse the possible causal relationships between birth-to-pregnancy intervals and maternal, perinatal and infant outcomes, particularly child mortality.

<sup>3</sup> Some participants felt that it was important to note in the report that, in the case of birth-to-pregnancy intervals of five years or more, there is evidence of an increased risk of pre-eclampsia, and of some adverse perinatal outcomes, namely pre-term birth, low birth weight and small infant size for gestational age.

- It would be useful to include in ongoing studies analyses of relationships between birth spacing and maternal morbidity. For instance, examination of the effects of multiple short birth-to-pregnancy intervals would be useful, as would be more detailed data on the effects of very long intervals. Further analysis of the relationship between birth spacing and maternal mortality would help confirm or refute existing findings, although it is acknowledged that this may not always be feasible as it may require a very large number of cases.
- There is a need to investigate the relationship between birth spacing and outcomes other than mortality – for instance, maternal and child nutrition outcomes, or impact on the psychological development of children. Also, it would be helpful to have information on possible benefits, as well as possible risks, of particular birth spacing intervals.
- More studies are needed on the effects of postabortion pregnancy intervals in different regions. A distinction between induced and spontaneous abortion, and between safe and unsafe induced abortion, would be particularly helpful in future studies.
- Good-quality longitudinal studies that take more potential confounding factors into account are needed to:
  - (i) clarify the observed associations between birth-to-pregnancy intervals and maternal, infant and child outcomes; (ii) estimate the potential level of bias in the use of different measures of intervals (birth-to-birth vs. inter-pregnancy interval, for instance); and (iii) clarify the potentially confounding effect of short intervals following a child death, both because of shortened breastfeeding and because parents may seek to replace the dead child.
- Finally, there is a need to develop an evidence base for effective interventions to put recommendations on birth spacing into practice.

## Papers reviewed at the meeting

1. Conde-Agudelo A (draft, 2004). Effect of birth spacing on maternal and perinatal health: a systematic review and meta-analysis. Report prepared for The Academy for Educational Development and The CATALYST Consortium.

An amended and abridged version of this report (not reviewed by the WHO consultation) has now been published as follows:

Conde-Agudelo A, Rosas-Bermúdez A, Kafury-Goeta AC. Birth spacing and risk of adverse perinatal outcomes: a meta-analysis. *JAMA*, 2006, 295:1809–1823.

2. Conde-Agudelo A, Belizán, JM, Breman R, Brockman SC, Rosas-Bermúdez A (draft, 2004). Effect of the interpregnancy interval after an abortion on maternal and perinatal health in Latin America.

This paper has now been published as follows:

Conde-Agudelo A, Belizán, JM, Breman R, Brockman SC, Rosas-Bermúdez A. Effect of the interpregnancy interval after an abortion on maternal and perinatal health in Latin America. *International Journal of Gynaecology and Obstetrics*, 2005, 89: S34–S40 (supplement).

3. DaVanzo J, Razzaque A, Rahman M, Hale L, Ahmed K, Khan MA, Mustafa AG, Gausia K (draft, no date). The effects of birth spacing on infant and child mortality, pregnancy outcomes and maternal morbidity and mortality in Matlab, Bangladesh.
4. Dewey KG, Cohen RJ (draft, 2004). Birth-spacing literature: maternal and child nutrition outcomes. Report prepared for The Academy for Educational Development and The CATALYST Consortium.

5. Rutstein SO (draft, no date). Effects of preceding birth intervals on neonatal, infant and under-five years mortality and nutritional status in developing countries: evidence from the Demographic and Health Surveys.

This paper has now been published as follows:

Rutstein SO. Effects of preceding birth intervals on neonatal, infant and under-five years mortality and nutritional status in developing countries: evidence from the Demographic and Health Surveys. *International Journal of Gynaecology and Obstetrics*, 2005, 89:S7–S24 (supplement).

6. Rutstein SO, Johnson K, Conde-Agudelo A (draft, 2004). Systematic literature review and meta-analysis of the relationship between interpregnancy or interbirth intervals and infant and child mortality. Report prepared for The CATALYST Consortium.

### Supplementary paper

7. Zhu BP (draft, 2004). Effect of interpregnancy interval on birth outcomes: findings from three recent US studies.

This paper has now been published as follows:

Zhu BP. Effect of interpregnancy interval on birth outcomes: findings from three recent US studies. *International Journal of Gynaecology and Obstetrics*, 2005, 89:S25–S33 (supplement).

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