The John D. and Catherine T. MacArthur Foundation hosted a series of Population and Reproductive Health Area consultations with experts on a range of topics. The speakers laid out current perspectives on the topics of Population Growth; Maternal Mortality and Morbidities; Maternal/Reproductive Health in Humanitarian Crisis Settings; Scaling-Up of Interventions; Young People’s Sexual and Reproductive Health; and Population Trends.

**Speakers on Population Growth:**

**March 1, 2012. Dr. John Bongaarts** presented on “Population Policy Options for the Developing World.” Dr. Bongaarts, a Vice President and Distinguished Scholar at the Population Council, discussed population trends, evolving policy interests, and policy options. Bongaarts showed that the poorest countries are expected to double in size between 2010 and

2050. Sub-Saharan Africa, for example, is expected to add to its current population of 856 million by another one billion people by 2050. The greatest driver of growth worldwide is “population momentum,” the effect of a very large number and percent of young adults who are about to marry and have children. Dr. Bongaarts examined policy options that respond to the causes of population growth including strengthening family planning programs (to address unwanted fertility); investing in human capital programs such as girls’ education (to address high desired fertility); and delaying age marriage and at first pregnancy (to respond to the population momentum due to the young age structure).

**August 6, 2012. Dr*.* David Lam,** a Professor in the Department of Economics and a Research, Professor in the Population Studies Center at the University of Michigan, presented to staff on “Population Growth and Natural Resource Constraints.” As the rate of population growth was increasing in the 1960s, Lam said, there were widespread fears, articulated by Paul Ehrlich in his book, *The Population Bomb,* about drastic food shortages, growing poverty, and resource depletion to follow in future decades. Although the world’s population size did indeed double from 1960 to 1999, from three billion to six billion, Lam showed how these predictions of dire consequences did not come true. In India, for example, food production more than tripled between 1961 and 2009. In Sub-Saharan Africa, population had grown by 359% in that same period, with total food production keeping up at 335%. Overall, the global poverty rate has

fallen by 50%, with some countries such as China seeing huge declines. Lam’s view is that while the world population doubled in 39 years, it is doubtful that this will ever happen again. It was noted that this history is not a reason to be complacent about future population growth. The “green revolution” advances are not likely to continue, and the impact of increased food production has created a loss in rainforests and other natural ecosystems, factors that Lam says make it important to continue focusing on family planning and increasing access to education.

**September 24, 2012. Dr. Tom Merrick** reviewed broad demographic trends from 1950, when the world population was 2.5 billion to now, when it stands at an estimated 7.1 billion. Merrick, Advisor to the World Bank Institute and formerly of the World Bank, talked about fertility rates, highlighting the drivers of high fertility including the demand for children, particularly for rural households and where infant mortality is high; unwanted fertility—not using family planning when fertility norms are changing; and population momentum, where population continues to

grow even after fertility declines due to a large base of youth in the age structure. He reviewed some of the major debates around population and development which include the connections among population, consumption, and environmental issues, including climate change, among others. Merrick spoke about the new development assistance approaches in the health and population areas at the World Bank, such as debt relief, demand-side finance (cash transfers), and pay for performance.

**September 24, 2012. Dr. T. Paul Schultz*,*** who has been a Professor of Economics at Yale University since 1975, presented on "Evidence on Investments in Women's Human Capital." Schultz started off by summarizing the goal of improving evidence on which to base policy and program priorities. He noted that without data collection before interventions, evaluation is not convincing. Schultz observed that early family planning programmers and researchers failed to recognize the need for rigorous data collection and analysis to make their case on the impact of family planning and, as a result, did not collect baseline data. In an effort to supply the field with rigorous data on the impact of family planning, Schultz and fellow researchers analyzed data

from Matlab, Bangladesh. Since 1966, researchers in Matlab have tracked births, marriages, deaths, divorces, internal migration in and out of the area, and movements within the area on a monthly basis for that population of about 180,000 people. In 1977, a maternal child health and family planning program began in half of the villages in Matlab, providing evidence over time about the benefits of these programs. The Matlab data represented the best source of longitudinal data on which to conduct analyses about the potential impacts of family planning.

In their analysis, Schultz and his colleagues found that intervention communities (those that were provided family planning) experienced lower fertility (by one fewer child); reduced child mortality by 30 percent, improved women's body mass index (BMI) by 6 percent, increased women's wages by 40 percent, increased household assets by 25 percent, and advanced the years of schooling for young people, among other gains. Schultz also shared evidence on the benefits of schooling for girls. Numerous studies have shown that child mortality is lower for more educated mothers and more family resources are devoted to each child; while women’s wages increase with schooling by at least the same proportion as for men, fertility is reduced, and children of more educated women stay in school longer on average.

**Speakers on Maternal Mortality and Morbidities:**

**June 18, 2012. Dr. Wendy Graham**, Professor of Obstetric Epidemiology at the University of Aberdeen, Scotland, addressed staff, setting out three “provocations” on maternal health, starting with “how do we define success?” She looked at measurements of maternal mortality, a topic on which she is a recognized expert, and stressed the importance of “failure as a learning opportunity.” The second provocation, “do we ever learn?” looked at the current maternal health blind spots that Graham said still exist: 1) a skilled attendant at birth does not necessarily equal skilled care at birth since clinical facilities are also required; 2) coverage is necessary but not sufficient; and 3) quality is more than human resources. “Are we responsive to changing needs and demands,” was the third provocation Dr. Graham examined, and she discussed how one

major change, the increase of non-communicable diseases as leading causes of death for women worldwide, related to maternal health.

**June 18, 2012. Dr. Joseph Ruminjo** discussed the necessity of incorporating attention on maternal morbidities into the maternal health agenda. Ruminjo, the Clinical Director of the Fistula Care Project at EngenderHealth, said that a “maternal morbidity” is defined as a woman’s ill health or disability and injury related to pregnancy or childbirth. There has been some reduction in maternal deaths which for many years totaled over 500,000 every year and are now down to just under 300,000 a year, 99% in developing countries. It is challenging to quantify accurate numbers on maternal morbidities due to multiple factors. But Ruminjo said it is

believed that for every woman who dies in pregnancy or during or shortly after childbirth, another 10 to 30 women suffer serious or long term morbidity, and another 50-100 women suffer some form of morbidity. He gave examples of some causes of morbidity, including such severe obstetric complications as hemorrhage, sepsis, eclampsia, obstructed labor, and others. Effects

of morbidities for the woman are not just physical, but also psychosocial and economic, such as the inability of the mother to care for her children, loss of economic productivity, and possible loss of a woman’s extended family and community roles. Ruminjo reviewed data on some morbidities such as maternal mental health (postpartum depression, for example), obstetric and traumatic fistula, and uterine prolapse. Conclusions that Ruminjo provided the group included the need to expand vision and advocacy about safe motherhood to explicitly include morbidity; to improve data on the magnitude of the problem; and to provide better access to facility and community based maternal and reproductive health care.

**June 18, 2012. Dr. Lale Say*,*** Coordinator of the Research Capacity, Policy and Programme Strengthening Unit at the World Health Organization, spoke to the group about the “Quality of Maternal Health Care and the WHO Maternal Near Miss Approach.” She noted that a substantial proportion of maternal deaths take place in hospitals, and that even in high and middle-income settings, the quality of maternal health care can be weak. Thus, a

systematic/routine assessment of quality is needed to improve care. To monitor quality, Say told the group, it is more useful to use maternal morbidity as a measure rather than maternal

mortality. She focused on a specific type of morbidity, the maternal “near miss,” which WHO defines as “a woman who nearly died but survived a complication that occurred during pregnancy or childbirth.” According to the WHO, “women who survive life-threatening conditions arising from complications related to pregnancy and childbirth have many common aspects with those who die of such complications. This similarity led to the development of the near-miss concept in maternal health. Exploring the similarities, the differences, and the relationship between women who died and those who survived life-threatening conditions can provide a more complete assessment of quality in maternal health care”. The World Health Organization has established identification criteria for the maternal near miss, and has undertaken studies using a near miss tool to capture the information. Dr. Say believes that WHO’s near miss approach using the criterion-based clinical audit (and feedback) will be useful for identifying health system problems and can lead to improvements of quality in maternal health care.

**August 8, 2012. Dr. Gary Barker**, International Director of Promundo-DC, the U.S. office of Brazilian NGO Instituto Promundo, spoke about men and masculinities and what they mean for maternal and sexual and reproductive health. He reviewed the results of the International Men and Gender Equality Survey (IMAGES), which consisted of 18,000 interviews in seven countries that asked men and women about their behaviors and attitudes on men, gender equality, health, and family dynamics. Through the results of IMAGES and several “sister” studies, it was found across the settings that “how and to what extent boys and men internalize prevailing inequitable social definitions of manhood and gender-related norms affects their health and that of their partners with direct linkages to sexual and reproductive health, maternal and child health,

gender-based violence, and HIV.” Barker outlined the benefits of engaging men in maternal health, including: increasing the chances that women will attend more prenatal and postpartum health visits; increasing the chance women will deliver in facilities with skilled birth providers; and how men’s presence at birth often leads to their greater participation in caring for their children and, in the longer run, greater involvement as fathers. He outlined qualities of programs with men and boys that show impact, and talked about a global campaign Promundo is part of, MenCare, that promotes men’s involvement as responsive, non-violent fathers engaged in maternal and child health. Barker cautioned that, by itself, involving men in maternal and child health and sexual and reproductive health programming does not solve all the challenges including structural issues that create and perpetuate poverty, or infrastructure problems related

to health care. But, Barker concluded, “it does address some of the biggest drivers of gender inequality—the inequality in caregiving and women’s income inequality and health.”

**Speakers on Maternal/Reproductive Health in Humanitarian Crisis Settings:**

**August 6, 2012. Beth Vann** presented on findings, from a landscape survey commissioned by MacArthur, on the situation for reproductive and maternal health care in refugee and humanitarian situations. Vann, an independent consultant with a background in women’s health and human rights in complex emergencies, said the survey included interviews with 24 entities (humanitarian aid and development NGOs, research institutions, UN agencies and other donors) that work on this issue; a review of existing literature on the field; identifying good practice standards, key successes, issues and challenges; and recommendations on what a niche for MacArthur could be in this area. Vann reported that as of 2010, there are approximately 27.5 million internally displaced persons and 15.5 million refugees, with the greatest majority in Sub- Saharan Africa. Of this total 43 million people, 47% are female. Of the 20 million or so women in this affected group, 5 million are of reproductive age, with an estimated one million of the women pregnant at any given time. Key issues and challenges include a lack of adequate staff and funding; cultural beliefs, practices, and attitudes that impact care and access to family planning; a shortage of evidence-based services for victims of gender-based violence; and a limited availability of technical guidance and support for maternal health in countries with emergency situations. Vann summarized recommendations for MacArthur that included 1) improve data on how much money is being spent on this area and where these funds are going;

2) promote the definition of core staff competencies and build capacity to meet them; 3) fund innovative programs that will build the evidence base; and 4) support advocacy around this area

(since a great deal of funding is already dedicated to on-the-ground service delivery but little policy advocacy complements that work).

**August 6, 2012. Catrin Hillen-Schulte*,*** a midwife and reproductive health care working group leader for Doctors Without Borders/Medecins Sans Frontieres (MSF), shared her experiences in conflict and post-conflict settings. Hillen-Schulte gave a summary of the work that MSF does internationally, especially in response to national disasters or political situations that lead to situations where there are refugee/internally displaced people. The majority of MSF’s work is in Africa, but there is an increasing need in Asia and the Middle East. The largest areas of assistance that MSF provides include out-patient and in-patient health care, reproductive health care, nutrition, sexual violence, epidemic response, and routine vaccinations. With specific regard to reproductive and maternal health care, Hillen-Schulte reviewed service statistics of MSF for 2011. The areas of assistance MSF provided included pre- and post-natal care, assisted deliveries, c-sections, contraceptives, and assistance to victims of sexual violence. She related some of the challenges faced by MSF in that field of its work including access to particular locations; acceptance, especially in countries such as Iraq, Afghanistan, Pakistan and Somalia; and the lack of training for local health workers.

**Scaling-Up of Interventions:**

**August 6, 2012. Dr. Ruth Simmons** addressed a key component of the Population and Reproductive Health Area’s theory of change for its country-specific grants, namely the scaling up of pilot projects. Simmons is a Professor Emerita in the Department of Health Behavior and Health Education at the University of Michigan School of Public Health and co-convener, with the WHO, of ExpandNet, a global learning community of senior health professionals, policymakers, and scholars engaged in efforts to take health service innovations to scale. ExpandNet defines scaling up as “deliberate efforts to increase the impact of health innovations successfully tested in pilot or experimental projects so as to benefit more people and to foster policy and program development on a lasting basis.” She said that it is necessary to invest resources into scaling up because otherwise numerous pilot studies will not lead to greater impact, and could represent a waste of resources. Simmons noted that successful scaling up needs to be tested under realistic conditions, and that it is not the same as routine program implementation. One type of scaling up is institutionalization or vertical scaling up, referring to systems changes needed to institutionalize the innovation at the national or local level. She gave the example of MacArthur’s funding the introduction of the drug magnesium sulfate to reduce eclampsia as a cause of maternal death in Nigeria, with that country’s government continuing

and increasing the funding after the MacArthur-funded project was finished. Another type of scaling up Simmons talked about is expansion or horizontal scaling up, innovations that are expanded or replicated in different geographic areas or extended to serve larger or different population groups. There are challenges to scaling up, and these include the political nature of scaling up projects, weak capacities in the private sector, lack of resources, and determining the most important indicators of a successful scale-up. Simmons highlighted a tool that ExpandNet uses for measuring successful pilot studies that are worthy of scaling up.

**Young People’s Sexual and Reproductive Health :**

**August 8, 2012. Dr. Vikram Patel*,*** a co-founder of Sangath, a grantee organization in India where he leads the organization’s youth health program, and Professor in International Mental Health and the Wellcome Trust Senior Research Fellow at the London School of Hygiene & Tropical Medicine in the UK, stressed the value of investing in youth reproductive and sexual health. This is especially important now, he said, because there are more young people than ever before—an estimated one billion adolescents (ages 10-19) worldwide. Current limitations to working on youth reproductive health include the problem of having a limited evidence base because the field is still relatively “young,” only a couple of decades old. There is also a lack of reliability of self-reported behavior, limited opportunities for evaluations, and long lags between interventions (in youth) and outcomes (in adulthood). Thus, to date, Patel said, most work from developing countries has provided preliminary evidence on promising interventions. Those interventions are both content-based—such as access to appropriate health care and life skills education, and gender-sensitive—and context-based—in youth-friendly community settings, education institutions, and health care based such as youth-friendly clinics. He listed some investments that he believes are needed: continued investment in low-cost pilot studies to experiment development of promising interventions; monitoring the uptake of promising interventions that are being scaled up; and funding of more definitive evaluations, clearly the most expensive option. Patel concluded that to advance the youth reproductive and sexual health agenda for major scale-up, evidence is the critical need, so his call for rigor in evaluation is based on the view that the field should not keep guessing about what works best, but rather invest in knowledge now to make the best use of funds in the future.

**Panel on Population Trends**

**April 19, 2013.** **Dr. Wendy Baldwin**, President of the Population Reference Bureau; Dr. Tom Merrick, Advisor for the World Bank’s Health Sector Strengthening Unit; and Dr. Amy Tsui, Director of the Gates Institute of Johns Hopkins School of Public Health participated in an expert consultation on population trends. The panel opened with an overview of demographic trends around the world for the last sixty years, from high fertility rates in the 1960s in most developing countries to a substantial decline of population growth in various regions, especially Asia and Latin America. The evolution of the main drivers of fertility in recent years was discussed, including high demand for children, unmet need for family planning (i.e., women not using contraception when children are not desired immediately), and population momentum (i.e., continued growth, after fertility declines, as a result of a large “youth bulge” in the age structure). The discussion addressed some of the current debates on population and development, including those surrounding the links between high fertility and poverty reduction strategies, whether and under what conditions rapid population growth impacts economic development, and the connection among population, consumption and environmental issues. In addition, the concept of the “demographic dividend” – a combination of declining fertility, smaller share of ageing population and entrance by the relatively larger base of the younger population into productive labor force – is posited to help facilitate rapid economic growth. One of the benefits of the demographic dividend concept is offering arguments to help make the case for reproductive health investments to Ministers of Finance, not just ministers of health or social development. Comparisons were made about the East Asia economies, seen as proving the concept; some Latin American countries where the benefit may not have been fully realized; and Sub-Saharan Africa where the potential is only now arising and the recognition of the demographic dividend is blossoming. Still, “the attention span of the political community is 5 years, while for demographers it’s 30 years,” so it’s not certain that the required long-term policies will ensure the demographic dividend payoff in Africa. There is a risk that in some countries (e.g., Uganda) the idea of “big population size is needed to be a big market and a big player” might hold sway, without efforts to influence policy in another direction.