

2003

Population Briefs, Vol. 9, no. 3

Population Council

Follow this and additional works at: https://knowledgecommons.popcouncil.org/series_newsletters_popbriefs

Recommended Citation

Population Briefs 9(3): New York: Population Council, 2003.

This Newsletter is brought to you for free and open access by the Population Council.

IN THIS ISSUE

- HIV Prevention
- Reproductive Health
- Child Survival
- Experimental Programs
- Capacity Building

“It would be inappropriate to extend the results of the Women’s Health Initiative study to hormone therapy in general.”

see page 2



June 2003

Volume 9, Number 2

HIV PREVENTION

Education Improves Breastfeeding Practices in Zambia

Last year, 800,000 children became infected with HIV, most of them during their mother’s pregnancy, childbirth, or through breastfeeding. The Population Council’s Horizons program has tested the introduction of infant feeding counseling to inform women about ways to reduce the risk of HIV transmission during breastfeeding and to support them in their infant feeding choices. The program is being tested at antenatal care clinics in Ndola, Zambia, a low-income setting where antiretroviral drugs are unavailable. The intervention is a collaboration with three nongovernmental organizations, Hope Humana, the LINKAGES project, and the Zambia Integrated Health Project, and two government agencies, the Zambian National Food and Nutrition Commission and the Ndola District Health Management Team.

The research shows that women receiving infant feeding counseling maintain healthier breastfeeding practices in the first six months of their infants’ lives. But more work is needed to increase community use of voluntary HIV counseling and testing services and to promote behavior change for preventing HIV transmission and seeking care and support for HIV infection.

The Horizons program of operations research is implemented by the Population Council with the International Center for Research on Women, the International HIV/AIDS Alliance, the Program for Appropriate Technology in Health, Tulane University, Family Health International, and Johns Hopkins University.

Horizons is funded by the U.S. Agency for International Development; its findings allow the agency and its cooperating partners to allocate

limited funds most effectively on the basis of empirical information.

Breastfeeding conundrum

In richer countries, mothers with HIV are advised to feed their babies exclusively with formula to avoid transmitting the infection. In poorer countries, however, this strategy can be problematic. In addition to the high cost of formula, a stigma is often attached to formula feeding babies because it suggests the mother may have HIV. Thus, formula feeding may lead to discrimination against the mother. Moreover, if clean water is unavailable, as it often is in poor countries, formula can do more harm than good by exposing babies to waterborne microorganisms that cause diarrhea and respiratory infections. These conditions, combined with malnutrition, are the leading causes of death among children under five years of age worldwide.

Feeding babies with a combination of formula or other feeds and breast milk can result in a higher rate of HIV transmission than breastfeeding alone. UNAIDS, UNICEF, and the World Health Organization advise that health-care managers conduct a thorough investigation into local infant feeding options and that health workers help individual HIV-positive mothers weigh the relative risks specific to each locality. Such an assessment conducted in Zambia’s Ndola district found that for most mothers breastfeeding is the safest option, even when the mother knows she is HIV-positive.

Working with the study partners, six maternal and child health clinics in Ndola added services

continued on page 6

Hormone Choice May Reduce Risks of Menopause Therapy

The type of progestin hormone used in menopausal hormone therapy may have a large influence on the safety and potential side effects of that therapy, says Régine Sitruk-Ware, Population Council executive director for product research and development. "The results of a recent study have made many women and doctors skeptical of hormone therapy in general," says Sitruk-Ware. "But this study was based on a single hormone therapy. Other therapies, particularly ones using different progestin hormones, may have fewer side effects than the one studied." Sitruk-Ware recently outlined the properties of various progestins and progesterone, paying particular attention to potential risks and benefits. Some progestins are synthetic versions of the natural hormone progesterone, while others are derived from testosterone, a male hormone.

Progestogens in hormone therapy

Women usually use hormone therapy after menopause to alleviate symptoms, such as hot flashes, and health risks, such as heart disease, that result from a reduction of estrogen in their bodies. However, it is unsafe for women with intact uteruses to take estrogen alone. This causes cells in the endometrium to proliferate and greatly increases women's risk of endometrial cancer. Thus, for these women, it is necessary to use a therapy that combines estrogen with progesterone or a progestin. This combination reduces the risk of endometrial cancer from hormone therapy. Some people have argued, however, that progestins carry risks of their own that can offset the benefits of estrogen.

In July 2002, the U.S. National Institutes of Health announced the early end of a large study, part of the Women's Health Initiative, on the effects of estrogen plus progestin hormone therapy in healthy menopausal women. The study was halted because the overall health risks, particularly the risks of cardiovascular disease and invasive breast cancer, exceeded the benefits of the treatment. As a result of this study, the U.S. Food and Drug Administration requested that all manufacturers of

menopausal hormone therapies change their labeling. These therapies now warn of an increased risk for heart disease, heart attack, stroke, and breast cancer. Sitruk-Ware contends, however, that "it would be inappropriate to extend the results of this trial to hormone therapy in general, because the effects of such therapies relate specifically to the type of hormones used in each drug."

The treatment employed in the Women's Health Initiative study, for example, used a pro-

"Further studies are needed to compare the effects of a wide range of menopausal hormone therapy formulations."

gestin known as medroxyprogesterone acetate (MPA). Sitruk-Ware points out that, unlike natural progesterone, MPA may reverse some of the heart-protective effects of the estrogen in the drug and increase the risk of cardiovascular disease.

Unintended side effects

Human and animal studies have shown that different progestins have different influences on blood sugar and insulin levels, cholesterol levels, and the dilation of blood vessels. All of these factors play a role in cardiovascular disease. Some progestogens negatively affect these bodily functions and some have no effect.

The influence of hormones in the body, whether beneficial or detrimental, is determined by the hormones' interactions with cellular structures known as receptors. Hormones act in cells by binding to receptors.

Progesterone and the progestins trigger specific responses within cells when they bind to progesterone receptors. Additionally, some progestins have the ability to bind to other receptors. This binding can trigger cellular responses that are different from the intended effects that result when hormones bind to the progesterone receptor. MPA's ability to offset some beneficial actions of estrogen on cholesterol and on blood vessels may be caused in part by the hormone's binding to structures known as androgen receptors. Natural progesterone and a few other progestins do not bind to androgen receptors and thus do not produce these side effects.

The chemical structure of the hormone determines what receptors it will bind to, says Sitruk-Ware. "Very small structural changes may induce considerable differences in the effects of progestogens," she explains.

Breast cancer

The effect of progesterone and the progestins on breast cancer is less clear. The use of estrogen in hormone therapy has been known for years to slightly increase the risk of breast cancer. Clinical trials, however, have produced conflicting results on whether progestins further increase this risk, or have no effect. The conclusions of the Women's Health Initiative study on breast cancer were generalized to all women using hormone replacement therapy, says Sitruk-Ware. The breast cancer risk found in the study appeared only in women who had previously used hormone therapy for several years and thus were at a higher risk before the study began.

"Further studies are needed to compare the effects of a wide range of estrogen/progestin hormone therapy formulations used in clinical practice around the world, so that beneficial and deleterious effects can be quantified," concludes Sitruk-Ware. ■

SOURCE

Sitruk-Ware, Régine. 2002. "Progestogens in hormonal replacement therapy: New molecules, risks, and benefits," *Menopause* 9(1): 6-15.

Focus on Newborn Survival Needed in Rural Pakistan

Child survival programs in the developing world have typically focused on the post-neonatal period, the interval from one month of age to one year of age. This time of life has been targeted because cost-effective treatments and preventive medicine, such as childhood immunization and oral rehydration, exist for the most common ailments that occur then. These interventions, which gained momentum in the 1980s and continue today, have significantly reduced infant and child deaths in much of the developing world. As deaths in the postneonatal period become less common, however, an increasing proportion of infant deaths occur in the neonatal period, the first month of life. Limited data exist on the causes of neonatal death in developing countries. To address this dearth of information, Population Council program associate Fariyal F. Fikree used population-based surveys and in-depth interviews to gather data on infant mortality in rural Pakistan. She collaborated with Syed Iqbal Azam of Aga Khan University in Pakistan and Heinz W. Berendes of the National Institutes of Health.

Assessing infant mortality

The researchers conducted surveys and interviews in selected sites in Balochistan and North-West Frontier Province, including the Federally Administered Tribal Areas of that province. These surveys collected information on the level and clinical causes of maternal and infant mortality and their associated risk factors. The field work was conducted during 1990–91 in Balochistan, in 1991–93 in North-West Frontier Province, and in 1994 in the Federally Administered Tribal Areas. These largely rural regions were selected to reflect various levels of socioeconomic development, and accessibility and availability of health care personnel. In all of these areas, 90 percent of births occurred at home with the assistance of traditional birth attendants or family members.

The results showed that as infant mortality decreased, the proportion of neonatal deaths rose. In Balochistan the infant mortality rate

was 129 per 1000 live births; 51 percent of these deaths happened in the neonatal period. In the Federally Administered Tribal Areas, where the infant mortality rate was 106 per 1000 live births, neonatal deaths accounted for 57 percent of these deaths. In North-West Frontier Province, where infant mortality was lowest, 70 per 1000 live births, the proportion of infant deaths that occurred in the neonatal period was highest, 67 percent.

Tetanus

“We found that tetanus was the predominant cause of neonatal deaths in North-West Frontier Province, where it caused 23 percent of deaths in the first month of life, and in the Federally Administered Tribal Areas, where it

Neonatal tetanus in developing countries is largely attributable to three risk factors: lack of maternal immunization with tetanus toxoid, unhygienic delivery, and unhygienic umbilical cord care during the first week of life. Unhygienic cord care may include practices such as applying ghee (clarified butter) to the raw stump of the umbilical cord.

The maternal tetanus toxoid coverage reported in the Pakistan Demographic and Health Survey for 1990–91 was 23 percent. Tetanus toxoid immunization in the three rural areas surveyed is likely to be lower than the national average, say the researchers. “Increasing the number of women of child-bearing age in these areas who receive tetanus toxoid immunization would greatly decrease

Top clinical causes of neonatal and postneonatal deaths in Balochistan and North-West Frontier Province, including Federally Administered Tribal Areas, Pakistan 1990–94

Clinical cause	Neonatal period		Postneonatal period	
	No.	%	No.	%
Diarrhea syndrome	33	5.1	213	43.3
Tetanus	119	18.3	14	2.8
Acute respiratory infection	39	6.0	93	18.9
Low birth weight	99	15.3	12	2.4

Source: *Bulletin of the World Health Organization* 2002, 80(4): 271–276, Table 1

caused 36 percent of neonatal deaths,” says Fikree. Tetanus was less common in Balochistan, causing only 5 percent of neonatal deaths. Diarrhea syndrome and acute respiratory infection were the main causes of neonatal death in Balochistan. These maladies became more common in North-West Frontier Province and the Federally Administered Tribal Areas during the postneonatal period.

These findings strongly demonstrate the need for a significant addition to child survival programs, say the researchers. Program managers should emphasize maternal and neonatal care, particularly strategies aimed at tetanus, while maintaining and strengthening strategies to reduce diarrhea and acute respiratory infections.

the number of newborns who develop tetanus,” says Fikree.

Although improving women’s access to skilled birth attendants in these areas is important, adequate coverage in the near future is unlikely. Thus, increasing the maternal tetanus toxoid coverage, an easier task, is vital. ■

SOURCE

Fikree, Fariyal F., Syed Iqbal Azam, Heinz W. Berendes. 2002. “Time to focus child survival programmes on the newborn: Assessment of levels and causes of infant mortality in rural Pakistan.” *Bulletin of the World Health Organization* 80(4): 271–276.

OUTSIDE FUNDING

National Institute of Child Health and Human Development, National Institutes of Health, and UNICEF

Innovative Strategies Reduce Fertility in Ghana

In the early 1990s, surveys conducted in Ghana showed that people's desire for family planning was largely unfulfilled, despite two decades of policies aimed at making inexpensive family planning services available. Research also showed that mortality in remote rural areas was substantially higher than in urban communities. In response to this situation, the Ghanaian Ministry of Health designed the Community Health and Family Planning experiment at its Navrongo Health Research Centre (NHRC), a field station in rural northern Ghana. The Population Council provided research support and administered funding for this experiment. Many respected observers had stated that improving access to family planning services in rural sub-Saharan Africa would have little or no effect on fertility because kinship networks, family structures, and marriage customs favor large families. Recent results from the Navrongo experiment have provided an altered perspective on the issue.

Two strategies

The study team comprises investigators from the NHRC, Council staff members James F. Phillips and Elizabeth F. Jackson, and two Council fellows assigned to the NHRC, Cornelius Debpuur and Bawah Ayaga Agula. The experiment tests the relative effects of two strategies for delivering primary health care services to rural residents in the Kassena-Nankana District.

In one strategy, Ministry of Health nurses live and work in community-constructed health centers and provide health and family planning services door to door. In the other strategy—known as *zurugelu*, which means “togetherness” in the local language—door-to-door services are provided by local volunteers and supported by community leaders. These leaders also host community gatherings, known as *durbars*, that foster community dialogue about health and reproductive matters.

The study is being conducted in four geographic regions in the Kassena-Nankana

District. People in Area 1 are exposed to the *zurugelu* strategy. Residents of Area 2 receive care from nurses. In Area 3, people benefit from contact with both the *zurugelu* and nurse outreach strategies. In these three experimental areas and in Area 4, the comparison area, residents have access to Ministry of Health fixed-location clinics.

The NHRC's central scientific resource is the Navrongo Demographic Surveillance System, which registers all demographic events—including births, deaths, migrations, marriages, and pregnancies—that occur in the lives of all 142,000 individuals residing in Kassena-Nankana District. The system also provides continuous estimates of fertility rates for approximately 43,000 women of reproductive age.

Change seen

“The initial results of the experiment suggest that in a traditional African society provision of primary health services in the local community and intensive social mobilization can make a difference in fertility and ideas and beliefs about reproduction,” says Phillips.

Phillips and his colleagues examined the effect of the experiment on knowledge of contraceptives, desire to limit childbearing, reported contraceptive use, and fertility. Controlling for several potential biases, the researchers found that when nurse outreach and *zurugelu* were combined, married women's knowledge of contraceptives improved significantly more than it did in areas where either the *zurugelu* or the nurse outreach strategy was implemented separately.

Outreach by nurses, meanwhile, had the strongest influence on women's desire to limit childbearing. The researchers found that after one year of nurse outreach activities, women in that study group were 40 percent more likely to want to limit fertility than women in the comparison group. Women's fertility preferences in the *zurugelu*-only area were not significantly different from those of women in the comparison area. Women who experienced both nurse outreach and *zurugelu* were 20 percent more

likely than women in the comparison group to want to limit their childbearing. “By emphasizing exchanges between nurses and individual women, the nurse outreach approach may introduce women to new ideas about childbearing that do not immediately arise from *zurugelu* activities in the community,” says Jackson.

Does the desire to limit childbearing translate into contraceptive use? A statistical analysis showed that one year of exposure to nurse outreach and *zurugelu* implemented together increased reported modern contraceptive use among currently married women by 24 percent, a significant change. In the two areas where each of the strategies was implemented separately, no significant change was reported in contraceptive use. Evidence that fertility has fallen in all experimental areas, however, suggests that some women who use family planning may deny doing so. When the two interventions operated jointly, their fertility effect equaled the sum of the influence of each arm operating separately and resulted in a 15 percent reduction in fertility between 1994 and 1999.

Additive effect

“This demonstrates that *zurugelu* and nurse outreach have an additive effect on fertility reduction,” says Phillips. The success of this experiment has led the government of Ghana to begin implementing the combined approach nationwide.

Other results from the Navrongo experiment, including effects on child survival, are expected in the future. ■

SOURCE

Debpuur, Cornelius, James F. Phillips, Elizabeth F. Jackson, Alex Nazzar, Pierre Ngom, and Fred N. Binka. 2002. “The impact of the Navrongo project on contraceptive knowledge and use, reproductive preferences, and fertility,” *Studies in Family Planning* 33(2): 141–164.

OUTSIDE FUNDING

The Finnish International Development Agency, the Bill & Melinda Gates Foundation, the Andrew W. Mellon Foundation, the Rockefeller Foundation, and the United States Agency for International Development

The Future of Training Population Scientists

Since 1952, the Population Council has sustained a commitment to the goal of training population scientists from developing countries. While the demand for population scientists remains strong, the field has changed substantially in the last five decades. To examine the current situation with respect to recruitment, training, funding, and employment of population scientists, the Population Council convened an international panel of experts in September 2000. Jane Menken, of the University of Colorado, chaired the panel. The Population Council's representative was Cynthia B. Lloyd, director of social science research. Ann K. Blanc, of Blancroft Research International, served as consultant to the panel. Menken, Blanc, and Lloyd edited the panel's recent report of its findings.

A changing field

New global issues—the expansion of international migration, aging populations, persistent poverty, preservation of the environment, and the HIV/AIDS epidemic—have eclipsed the historical focus of population scientists on describing and explaining population growth and fertility decline. Demography, however, the methodological core of the field, continues to be the central shaper and producer of population knowledge. Because of its distinctive tools and perspective, the field of population studies is particularly well suited to exploring emerging issues and proposing effective solutions.

Despite the great need for population scientists, particularly ones from the developing world, a critical change in the population field that occurred in the mid-1990s has made it more difficult to train population scientists. At that time, the United Nations Population Fund and the United States Agency for International Development decreased or eliminated funding for Ph.D. and Master's-level training; new donors have not compensated for the withdrawal of these funds from the training arena. Opportunities for graduate training for promising developing-country scholars are thus now largely dependent on a diminishing

number of private foundations and some national governments.

Key recommendations

“The most desirable situation we can cultivate is one in which population experts are trained primarily in high-quality institutions located in their own countries or regions,” says Menken. “However, this scenario is not likely to be achieved in the near future.” The panel's recommendations represent its assessment of the actions that are most likely to lead to a

There is a great need for population scientists, particularly ones from the developing world.

more desirable situation while taking account of existing needs and gaps. Crucial among these recommendations are:

- Universities should provide a core set of Master's and Ph.D. courses in demography staffed by faculty with specialized training. All graduate students who want to become practitioners in the population field should master this core of knowledge.

- Universities should modify curricula to familiarize students of population with key concepts and methodologies from allied disciplines, especially economics, sociology, statistics, and public health.

- Universities should provide advanced training in formal demography for a small number of specialists.

- University administrators should think creatively about ways to make training pro-

grams more effective through international collaboration. Donors should make the funding of such programs a priority.

- Population organizations and universities should provide previously trained population scientists with opportunities for continuing education in the form of midcareer training. In addition to expanding knowledge, this type of training helps participants to build useful personal networks and institutional links.

- Population organizations should continue to encourage international participation in professional meetings and associations. It is crucial to maintain continuing contact between young and established researchers and to increase access to current research findings.

- Donors should fund the development of high-quality research centers responding to a locally determined research agenda. In general, support should be aimed at improving the sustainability of local institutions through the retention of local staff and the reversal of “brain drain” to developed countries. The most important elements of support are research grants, computer facilities, libraries, travel grants, and funding for transnational collaborations that include faculty exchanges.

“Advances in information technology have allowed research to be conducted at greater speed and lower cost,” says Lloyd, “and the development of the internet has created new opportunities for collaboration and information sharing.” But without funding for basic training of new population scientists from developing countries and continuing education for working scientists, the goal of significantly strengthening research capacity in the developing world will remain out of reach. ■

SOURCE

Menken, Jane, Ann K. Blanc, and Cynthia B. Lloyd (eds.). 2002. *Training and Support of Developing-Country Population Scientists: A Panel Report*. New York: Population Council.

OUTSIDE FUNDING

The Andrew W. Mellon Foundation

continued from page 1

aimed at preventing the transmission of HIV from mother to child. The services included counseling on infant feeding and voluntary HIV counseling and testing. The Sisters of the Sacred Heart, part of the Catholic Diocese in Ndola, participated by referring pregnant women to voluntary HIV counseling and testing services at the Ndola clinics. For social support the clinics referred HIV-positive mothers and their families to the Sisters of the Sacred Heart Home Based Care program and Hope Humana, a nongovernmental organization focused on HIV/AIDS.

Researchers assessed knowledge, attitudes, and practices regarding these added services and HIV in general through questionnaires administered to community members and mothers attending clinics. Baseline interviews among 1,430 people were conducted in 2000. An additional 1,300 respondents were interviewed in 2001, one year following the introduction of the intervention. Results from a third and final round of questionnaires are forthcoming.

In the study, all mothers were given information about feeding choices and offered the opportunity to learn their HIV status through confidential on-site counseling and testing services. A trained counselor guided each mother through the feeding choices and encouraged each to weigh the relative risks and benefits of infant-feeding options. Counselors advised HIV-negative women and women who did not know their HIV status to breastfeed their infants exclusively for the first six months, and to continue breastfeeding while introducing supplementary foods until the infant reached two years of age.

HIV-positive mothers were counseled about the option of exclusive formula feeding, including receiving instructions on how to boil water for this purpose, and warned of the negative effects of mixed feeding. The Ndola guidelines recommend that HIV-positive mothers stop breastfeeding at six months. At this age an infant can digest locally available alternative foods, such as maize porridge enriched with mashed fish, which would reduce the duration of potential virus exposure.

Findings

During the baseline interviews, researchers found that mothers were already well aware of

the possibility of HIV transmission from mother to child. However, most believed nothing could be done to prevent transmission. Twelve months into the intervention, though, more mothers were able to name some of the steps that could be taken to reduce mother-to-child transmission, including, in addition to early weaning, the use of antiretroviral drugs during labor and delivery.

Exclusive formula feeding and avoidance of breastfeeding remained unpopular. According to the researchers, this may be due to the expense of infant formula supplies, the enormous effort involved in obtaining fuel to boil water for formula preparation, or the stigma of suspected HIV-positive status associated with artificial feeding.

At the clinics, researchers observed that logistical obstacles, such as a lack of test kits and other supplies, hampered achievement of some of the intervention's goals. Moreover, the survey revealed that voluntary HIV counseling and testing is widely perceived not as a source of important information about one's health and available services, but rather as a source of stress. There are few treatment options in Ndola for people who learn they are HIV-positive. Thus, "reported use of this service remained low, rising only to 14 percent from 5 percent among the clinic attendees in the first year of the study," says Naomi Rutenberg, Population Council senior program associate in the Horizons program. The researchers recommended that facilities further improve routine services while adding enhanced services to prevent the transmission of HIV from mother to child.

Communication between partners about HIV appears to be improving. Among female respondents from the clinic and the community who were tested for HIV infection, 93 percent told their spouse the result of the test, up from 63 percent at the start of the intervention.

Most importantly, following the intervention and enhanced counseling, the percentage of mothers in the community reporting they were exclusively breastfeeding rose from 56 percent to 76 percent, with fewer mothers reporting using the riskier practice of mixed feeding. "This trend suggests that with appropriate counseling, women will continue to adopt good breastfeeding practices, even as

they become increasingly aware that HIV can be passed from a mother to her child through breast milk," says Sam Kalibala, a Population Council program associate based in Kenya.

A report on these findings can be downloaded in PDF form at <http://www.popcouncil.org/pdfs/horizons/ndolamdtrm.pdf>. ■

SOURCES

Horizons program. 2002. *Ndola Demonstration Project: A Midterm Analysis of Lessons Learned*. Nairobi: Population Council.

Schenk, Katie. 2003. "Breastfeeding education helps PMTCT," *AIDSLink*, Issue Number 78, Global Health Council. <http://www.globalhealth.org/publications/article.php3?id=914>

OUTSIDE FUNDING

United States Agency for International Development

Miss an issue of *Population Briefs*? Back issues are available free of charge while supplies last.

All issues of *Population Briefs* also are available on the Population Council's Web site: <http://www.popcouncil.org/publications/popbriefs/default.htm>

In previous issues:

Mirena®-Induced Drop in Menstrual Bleeding Studied (February 2003)

Maternal Deaths in the Dominican Republic Analyzed (September 2002)

What Factors Affect the Prevalence of HIV in sub-Saharan Africa? (July 2002)

Role of Dendritic Cells in HIV Infection Clarified (December 2001)

For a cumulative index:

<http://www.popcouncil.org/publications/popbriefs/pbindex.html>

For more information or to order issues contact:

Debra Warn, Office of Publications

Telephone: 212-339-0514

Fax: 212-755-6052

e-mail: dwarn@popcouncil.org

RECENT PUBLICATIONS

Center for Biomedical Research

HARDY, M.P., C.M. SOTTAS, R.S. GE, C.R. McKittrick, K.L. Tamashiro, B.S. McEwen, S.G. Haider, C.M. Markham, R.J. Blanchard, D.C. Blanchard, and R.R. Sakai. "Trends of reproductive hormones in male rats during psychosocial stress: Role of glucocorticoid metabolism in behavioral dominance," *Biology of Reproduction* 67(6): 1750–1755.

Ignatius, R., K. Tenner-Racz, D. Messmer, A. Gettie, J. Blanchard, A. Luckay, C. Russo, S. Smith, P.A. Marx, R.M. Steinman, P. Racz, and M. POPE. "Increased macrophage infection upon subcutaneous inoculation of rhesus macaques with simian immunodeficiency virus-loaded dendritic cells or T cells but not with cell-free virus," *Journal of Virology* 76(19): 9787–9797.

Maruo, T., D.R. Mishell, Jr., A. Ben-Chetrit, D. Hochner-Celnikier, A.L. Hamada, and H.A. NASH. "Vaginal rings delivering progesterone and estradiol may be a new method of hormone replacement therapy," *Fertility and Sterility* 78(5): 1010–1016.

Messmer, D., J.-M. Jacqué, C. SANTISTEBAN, C. BRISTOW, S.-Y. HAN, L. VILLAMIDE-HERRERA, E. Mehlhop, P.A. Marx, R.M. Steinman, A. Gettie, and M. POPE. "Endogenously expressed nef uncouples cytokine and chemokine production from membrane phenotypic maturation in dendritic cells," *Journal of Immunology* 169(8): 4172–4182.

SITRUK-WARE, R. "Antiandrogenic progestogens in hormone replacement therapy," *Gynaecology Forum* 7(2): 8–11.

———. "Hormonal replacement therapy: A review," *Reviews in Endocrine and Metabolic Disorders* 3(3): 243–256.

SITRUK-WARE, R. and G. Plu-Bureau. "Progestins and breast cancer risk: State of the controversy," in M. Neves-e-Castro and B.G. Wren (eds.), *Menopause: Hormones and Cancer*. Lancaster, UK: Parthenon Publishers, pp. 123–128.

Soler, M., O. Tornavaca, E. Sole, A. Menoyo, D. HARDY, J.F. CATTERALL, A. Vandewalle, and A. Meseguer. "Hormone-specific regulation of the kidney androgen-regulated gene promoter in cultured mouse renal proximal-tubule cells," *Biochemistry Journal* 366(3): 757–766.

International Programs Division

Altamirano, Nelly, Laura Islas, Guillermina Chablé, Yadira Patrana, Laura Villegas, Alejandro Valdarrama, María del Carmen Angeles, RAFFAELA SCHIAVON, César Jimenez, María de la Ruiz, Carlos Robles, and Raúl

Calzada. "Pubertad en adolescentes femeninas Mexicanas con diabetes mellitus tipo 1" [Puberty in Mexican female adolescents with type 1 diabetes], *Acta Pediátrica de México* 23(6): 422.

BECKER, DAVIDA, SANDRA G. GARCÍA, and Ulla Larsen. "Knowledge and opinions about abortion law among Mexican youth," *International Family Planning Perspectives* 28(4): 205–213.

BLANCHARD, KELLY, Sue Haskell, Sue Ferden, Karen Johnstone, Aileen Spears, Margaret Evans, Clare Leadbetter, S. Carlson, Amy Meehan, Katrina Abuabara, and CHARLOTTE ELLERTSON. "Differences between emergency contraception users in the United States and the United Kingdom," *Journal of the American Medical Women's Association* 57(4): 200–203, 214.

BRADY, MARTHA and ARJMAND BANU KHAN. *Letting Girls Play: The Mathare Youth Sports Association's Football Program for Girls*. New York: Population Council.

Bratt, John H., Mark A. Weaver, JAMES FOREIT, Teresa de Vargas, and Barbara Janowitz. "The impact of price changes on demand for family planning and reproductive health services in Ecuador," *Health Policy and Planning* 17(3): 281–287.

Changalucha, J., A. Gavyole, H. GROSSKURTH, R. Hayes, and D. Mabey. "STD/HIV intervention and research programme Mwanza Region, NW Tanzania," *Sexually Transmitted Infections* 78(suppl. 1): i91–i96.

Changalucha, J., H. GROSSKURTH, W. Mwita, J. Todd, D. Ross, P. Mayaud, A. Mahamoud, A. Klokke, F. Moshia, R. Hayes, and D. Mabey. "Comparison of HIV prevalences in community-based and antenatal clinic surveys in rural Mwanza, Tanzania," *AIDS* 16(4): 661–665.

Díaz Olavarrieta, Claudia, ABIGAIL NORRIS TURNER, CHARLOTTE ELLERTSON, Judith F. Helzner, and Enrique Ezcurra. "Policy climate, scholarship, and provision of emergency contraception at affiliates of the International Planned Parenthood Federation in Latin America and the Caribbean," *Contraception* 65(2): 143–149.

Durand, Martha, María del Carmen Cravioto, Elizabeth G. Raymond, Ofelia Durán-Sánchez, Ma. de la Luz Cruz-Hinojosa, Andrés Castell-Rodríguez, RAFFAELA SCHIAVON, and Fernando Larrea. "On the mechanisms of action of short-term levonorgestrel administration in emergency contraception," *Contraception* 64(4): 227–234.

ELLERTSON, CHARLOTTE, Angela Heimbürger, Dolores Acevedo-García, RAFFAELA SCHIAVON, Guillermina Mejía, Georgina Corona, Eduardo del Castillo, and ANA LANGER. "Information cam-

paign and advocacy efforts to promote access to emergency contraception in Mexico," *Contraception* 66(5): 331–337.

ESPIÑOZA, HENRY. "Embarazo no deseado y aborto inseguro: Dos problemas de salud persistentes en América Latina" [Unwanted pregnancy and unsafe abortion: Two persistent health problems in Latin America], *Revista Panamericana de Salud Pública* 11(3): 148–149.

———. "The relationship between family structure and exclusive breastfeeding prevalence in Nicaragua," *Salud Pública de México* 44(6): 499–507.

ESPIÑOZA, HENRY, CHARLOTTE ELLERTSON, SANDRA GARCÍA, RAFFAELA SCHIAVON, and ANA LANGER. "Medicamentos para la interrupción de la gestación: Una revisión de la literatura y sus posibles implicaciones para México y América Latina" [Medical methods for pregnancy termination: A review of literature and its potential role in Mexico and Latin America], *Gaceta Médica de México* 138(4): 347–356.

Gould, Heather, CHARLOTTE ELLERTSON, and Georgina Corona. "Knowledge and attitudes about the differences between emergency contraception and medical abortion among middle-class women and men of reproductive age in Mexico City," *Contraception* 66(6): 417–426.

Hawkes, S. and K.G. SANTHYA. "Diverse realities: Sexually transmitted infections and HIV in India," *Sexually Transmitted Infections* 78(suppl. 1): i31–i39.

Heimbürger, Angela, Dolores Acevedo-García, RAFFAELA SCHIAVON, ANA LANGER, Guillermina Mejía, Georgina Corona, Eduardo del Castillo, and CHARLOTTE ELLERTSON. "Emergency contraception in Mexico City: Knowledge, attitudes, and practices among providers and potential clients after a 3-year introduction effort," *Contraception* 66(5): 321–329.

Hidalgo, Margarete, Luis Bahamondes, Marcos Perrotti, JUAN DÍAZ, Cecília Dantas-Monteiro, and Carlos Petta. "Bleeding patterns and clinical performance of the levonorgestrel-releasing intrauterine system (Mirena) up to two years," *Contraception* 65(2): 129–132.

Hugonnet, S., F. Moshia, J. Todd, K. Mugeye, A. Klokke, L. Ndeki, D. Ross, H. GROSSKURTH, and R. Hayes. "Incidence of HIV infection in stable sexual partnerships: A retrospective cohort study of 1,802 couples in Mwanza Region, Tanzania," *Journal of Acquired Immune Deficiency Syndromes* 30(1): 73–80.

JEJEEBHOY, SHIREEN J. "Convergence and divergence in spouses' perspectives on women's

continued on page 7A

Recent Publications

continued from page 7

autonomy in rural India," *Studies in Family Planning* 33(4): 299–308.

Karim, Quarraisha Abdool, SAMUEL KALIBALA, Elly T. Katabira, and Zena A. Stein. "Home-based care," in Myron Essex, Souleymane Mboup, Phyllis J. Kanki, Richard G. Marlink, and Sheila D. Tlou (eds.), *AIDS in Africa*, 2nd edition. New York: Kluwer Academic Publishers.

KHAN, M.E. "Situation analysis of the postpartum program in India," *National Medical Journal of India* 15(5): 207–214.

KHAN, M.E., JOHN W. TOWNSEND, and UBAIDUR ROB. "Male involvement in a reproductive health programme: Where we stand today—A critical review of the initiatives taken in India," in *Programming for Male Involvement in Reproductive Health: Report of the Meeting of WHO Regional Advisers in Reproductive Health*. Geneva: WHO, pp. 58–62.

Kim, Young-Mi, Maria Elena Figueroa, ANTONIETA MARTIN, Ricardo Silva, Sixto F. Acosta, Manuel Hurtado, Paul Richardson, and Adrienne Kols. "Impact of supervision and self-assessment on doctor–patient communication in rural Mexico," *International Journal for Quality in Health Care* 14(5): 359–367.

Monteiro, Ilza, Luis Bahamondes, JUAN DÍAZ, Marcos Perrotti, and Carlos Petta. "Therapeutic use of levonorgestrel-releasing intrauterine system in women with menorrhagia: A pilot study," *Contraception* 65(5): 325–328.

MUIA, E., K. BLANCHARD, M. Lukhando, J. Olenja, and W. LIAMBILA. "Evaluation of an emergency contraception introduction project in Kenya," *Contraception* 66(4): 255–260.

Nguyen Thi Hoa Binh, MICHELLE GARDNER, and Christopher Elias. "Perceptions of morbidity related to reproductive tract infection among women in two rural communities of Ninh Binh Province, Vietnam," *Culture, Health and Sexuality* 4(2): 153–171.

PACHAURI, SAROJ. "Resource book: Research methods in reproductive health," in Suneeta Mittal and Sunesh Kumar (eds.), *Reproductive Health: Policy Implementation in India*. New Delhi: WHO-CCR in Human Reproduction, Department of Obstetrics and Gynecology, and All India Institute of Medical Sciences, pp. 19–26.

PACHAURI, SAROJ and K.G. SANTHYA. "Reproductive choices for Asian adolescents: A focus on contraceptive behavior," *International Family Planning Perspectives* 28(4): 186–195.

PALABRICA-COSTELLO, MARILOU and John B. Casterline. "Fertility decline in the Philippines: Current status, future prospects," in *Completing*

the Fertility Transition, UN document ESA/P/WP.172/Rev.1. New York: United Nations, Department of Economic and Social Affairs, Population Division, pp. 529–538.

Philpott, A., D. Maher, and H. GROSSKURTH. "Translating HIV/AIDS research findings into policy: Lessons from a case study of 'the Mwanza trial,'" *Health Policy and Planning* 17(2): 196–201.

Pujades Rodríguez, M. del Mar, A. Obasi, F. Moshia, J. Todd, D. Brown, J. Chagalucha, D. Mabey, D. Ross, H. GROSSKURTH, and R. Hayes. "Herpes simplex virus type 2 infection increases HIV incidence: A prospective study in rural Tanzania," *AIDS* 16(3): 451–462.

ROB, UBAIDUR and M. MUTAHARA. "Premarital sex among urban adolescents in Bangladesh," *International Quarterly of Community Health Education* 20(1): 103–111.

SANTHYA, K.G. and G.L. Dasvarma. "Spousal communication on reproductive illness among rural women in southern India," *Culture, Health and Sexuality* 4(2): 223–236.

SATHAR, ZEB A. and John B. Casterline. "Rejoinder: The onset of fertility transition in Pakistan," *Pakistan Development Review* 40(3): 237–238.

SCHIAVON, RAFFAELA. "Aspectos metabólicos de los anticonceptivos orales en la adolescencia" [Metabolic aspects of oral contraceptives in adolescents], *Acta Pediátrica de México* 23(1): 37–44.

———. "The counseling in emergency contraception," in *Pediatric and Adolescent Gynecology*. Rome: CEC Edizioni Internazionali, pp. 330–337.

———. "Is menstruation obsolete?" book review, *Orgyn* (special issue): 54–55.

———. "¿Opciones anticonceptivas sometidas a juicio legal?" [Are contraceptive options subject to legal opinion?], *Acta Pediátrica de México* 23(4): 243.

SCHIAVON, RAFFAELA, Felipe Santana, César Jiménez, Eduardo Gayón, Laura Islas, and Nelly Altamirano. "Hiperinsulinemia y resistencia a la insulina: Marcadores tempranos de alteraciones menstruales en la adolescencia" [Hyperinsulinemia and resistance to insulin: Early markers of menstrual alterations in adolescence], *Acta Pediátrica de México* 23(6): 416–417.

SKIBIAK, JOHN P., Tekle-Ab Mekbib, and Haileyesus Getahun. "Expanding contraceptive choice in Ethiopia," *Sexual Health Exchange* 2002-2: 4–5.

Sorhaindo, Annik, DAVIDA BECKER, Horace Fletcher, and SANDRA G. GARCÍA. "Emergency contraception among university students in Kingston, Jamaica: A survey of knowledge, attitudes, and practices," *Contraception* 66(4): 261–268.

TURNER, ABIGAIL NORRIS and CHARLOTTE ELLERTSON. "How safe is emergency contraception?" *Drug Safety* 25(10): 695–706.

WIDGE, ANJALI. "Sociocultural attitudes towards infertility and assisted reproduction in India," in Effy Vayena, Patrick J. Rowe, and P. David Griffin (eds.), *Current Practices and Controversies in Assisted Reproduction*. Geneva: WHO, pp. 60–74.

Reports

"An assessment of trends in IUD use in Ghana," *Frontiers draft final report*. Accra: Population Council.

"Building financial sustainability for African NGOs," *Frontiers draft report of the Conference on Financial Sustainability for African Reproductive Health NGOs*. Nairobi: Population Council.

DADIAN, MARGARET (ed.). *Horizons Report: Care and Support in India—Special Focus on YRG Care*. Washington, DC: Population Council.

Department of Health and Population Council. "Reproductive tract infections in Mandalay clinics, Myanmar: A cross-sectional prevalence and cost-analysis study." Bangkok: Population Council.

Robert H. Ebert Program on Critical Issues in Reproductive Health and Ministry of Health, Kenya. "A demonstration project on approaches to providing quality maternal care in Kenya: Findings from a baseline survey in four districts in Western Province, Kenya." Nairobi: Population Council.

———. "Essential obstetric care manual for health service providers in Kenya." Nairobi: Population Council.

———. "Standards for maternal care in Kenya." Nairobi: Population Council.

Epstein, Helen, Daniel Whelan, JANNEKE VAN DE WIJGERT, PURNIMA MANE, and Suman Mehta. *HIV/AIDS Prevention Guidance for Reproductive Health Professionals in Developing Country Settings*. New York: Population Council and UNFPA.

HOANG TU ANH. "Soccer and HIV/AIDS prevention for disadvantaged youth in Hanoi: An action research on 'edutainment' approach and youth involvement," preliminary report. Hanoi: Population Council.

Hong Khuat Thu and NGUYEN THI MAI HUONG. "Expanding HIV/AIDS prevention education through traditional theatre for Khmer people in Vietnam," project report. Hanoi: Population Council.

Hope Humana, LINKAGES, National Food and Nutrition Commission, Ndola District Health Management Team, Horizons Program, and Zambia Integrated Health Project. "Ndola Demonstration Project: A midterm analysis of lessons learned," Horizons project report. Nairobi: Population Council.

"Improving the quality of care of family planning services in Uganda," Frontiers draft final report. Nairobi: Population Council.

Institute of Medicine and Population Council. "A pilot prevalence study of group B streptococcus and bacterial vaginosis and other reproductive tract infections in asymptomatic pregnant women in Central Women's Hospital, Yangon." Bangkok: Population Council.

"Integrating adolescent livelihood activities with a reproductive health program for urban slum dwellers in India: Intervention and results from baseline and midline surveys," Frontiers final Phase I report. New Delhi: Population Council.

"Involving men in maternity care in South Africa: Draft achievements and progress in the second year," Frontiers project report. Johannesburg: Population Council.

JEJEEBHOY, SHIREEN J. and Sarah Bott. "Sexual and reproductive health of young people in the Asia-Pacific region," parliamentary document from the Fifth Asian and Pacific Population Conference, 11–17 December. Bangkok: Economic and Social Commission for Asia and the Pacific and United Nations Population Fund.

KHAN, ARJMAND BANU and Ann Leonard. "Skills training and beyond: Expanding livelihood opportunities for adolescent girls and young women in Kenya." Nairobi: Population Council.

KHAN, M.E. "Desk review: Evaluation of UNFPA Bangladesh Fifth Country Program." Dhaka: UNFPA.

LE THI PHUONG MAI and Le Ngoc Lan. "The baseline study on gender-based violence conducted at health facilities and communes in Gia Lam District, Hanoi," project report. Hanoi: Population Council.

LE THI PHUONG MAI and Lucinda Willshire. "Tackling domestic violence: Adapting guidelines materials for rural communities," project report. Hanoi: Population Council.

MARTIN, ANTONIETA, JAMES R. FOREIT, Enrique Ezcurra, and RICARDO VERNON. "Workshop on uti-

lization of research results," report of a workshop held at the University of Costa Rica, 4–7 June. Mexico City: Population Council/Frontiers.

MISHRA, ANURAG, LEILA CALEB VARKEY, Emma Ottolenghi, ANJANA DAS, DALE HUNTINGTON, and SUSAN ADAMCHAK. "Men in maternity study: Preliminary findings from the pre-intervention survey," Frontiers report. New Delhi: Population Council.

Nigenda, Gustavo, Mariana Romero, and ANA LANGER. "Reflexiones metodológicas en torno a un estudio cuali-cuantitativo sobre la percepción de la calidad de la atención prenatal en países en desarrollo" [Methodological reflections regarding a quali-quantitative study on the perception of prenatal quality of care in developing countries], in Mónica Gogna and Silvina Ramos (eds.), *Experiencias Innovadoras en Salud Reproductiva* [Innovative experiences in reproductive health]. Buenos Aires: Consorcio Latinoamericano en Programas de Salud Reproductiva y Sexualidad.

Okullo, Joel, Quinto Okello, HARRIET BIRUNGI, IAN ASKEW, Florence Ebanyat, and the DISH II Project. "Improving the quality of care for family planning services in Uganda: Results of a baseline survey." Kampala: Regional Center for Quality of Care.

Population Council, National Department of Health, South Africa, and Women's Health Project. "Increasing access to and quality of termination of pregnancy services." Johannesburg: Population Council.

RUTENBERG, NAOMI, SAM KALIBALA, CHARLES MWAI, and Jim Rosen. "Integrating HIV prevention and care into maternal and child health care settings: Lessons learned from Horizons studies," consultation report. Nairobi: Population Council.

"Using operations research to strengthen programs for encouraging abandonment of female genital cutting," Frontiers report of a consultative meeting on methodological issues for FGC research. Nairobi: Population Council.

VU NGOC BAO, PHILIP GUEST, JULIE PULERWITZ, Le Thuy Lan Thao, Duong Xuan Dinh, and Tran Thi Kim Xuyen. "Expanding workplace HIV/AIDS prevention activities for a highly mobile population: Construction workers in Ho Chi Minh City," preliminary report. Hanoi: Population Council.

VU NGOC BAO, Le Thuy Lan Thao, Duong Xuan Dinh, and Tran Thi Kim Xuyen. "An evaluation of the workplace-based HIV/AIDS program for garment workers in Ho Chi Minh City, Vietnam," preliminary report. Hanoi: Population Council.

Working Papers, Policy Briefs

ASKEW, IAN, Zoë Matthews, and Rachel Partridge. "Going beyond research: A key issues paper raising discussion points related to dissemination, utilisation and impact of reproductive and sexual health research." Southampton, UK: University of Southampton.

FIKREE, FARIYAL, Tazeen S. Ali, Mohammad H. Rahbar, and JILL M. DUROCHER. "Postnatal maternal and newborn care: Rituals, perceived morbidity, and care seeking—A community-based study in Karachi, Pakistan." New York: Population Council and Karachi, Pakistan: Aga Khan University.

FOREIT, JAMES R. "Frontiers capacity building: An overview." Washington, DC: Population Council.

"Impact of improved client–provider interaction on women's achievement of their fertility goals," Frontiers summary of key findings. Cairo: Population Council.

MARIN, M. CELESTE and Jane T. Bertrand. "Evaluation manual: Evaluating operations research utilization—Guidelines for assessing process and impact," www.popcouncil.org/pdfs/frontiers/Evaluation_Manual.pdf.

"Marketing new reproductive health services is cost-effective," Frontiers OR Summary no. 26. Washington, DC: Population Council.

"Postpartum and postabortion patients want family planning," Frontiers OR Summary no. 25. Washington, DC: Population Council.

"Providers should encourage sexually active youth to use condoms," Frontiers OR Summary no. 24. Washington, DC: Population Council.

Rodriguez, Gabriela and Benno de Keijzer. "La noche se hizo para los hombres: Sexualidad en los procesos de cortejo entre jóvenes campesinos y campesinas" [Night was made for men: Sexuality in courtship among young peasants]. Mexico City: Population Council and Edamex.

"Services improve quality of care but fail to increase FP continuation," Frontiers OR Summary no. 30. Washington, DC: Population Council.

"The TOSTAN approach inspires 23 villages in Burkina Faso," Frontiers Research Update no. 3. Dakar: Population Council.

"Who uses youth centers and why?" Frontiers OR Summary no. 23. Washington, DC: Population Council.

Zhou, Rosa, BATYA ELUL, and BEVERLY WINIKOFF. "Medical abortion in China: Results of a fact-

continued on page 8

Recent Publications

continued from page 7B

finding mission," Population Council Reproductive Health Working Paper. New York: Population Council.

Newsletters, Updates

"Celebrating 50 years with over 30 years of achievements in Kenya," 50th anniversary newsletter. Nairobi: Population Council.

Farag, Abdel Moneim, KARIMA KHALIL, Assem Anwar, Dina Galal, and Nabil Younis.

"Improving women's reproductive health: The medical components of a primary level framework of services," Policy Series in Reproductive Health no. 7. Cairo: Reproductive Health Working Group.

Grupo de Trabajo sobre Derechos Sexuales y Reproductivos [Working group on sexual and reproductive rights]. "Desyres de la sexualidad: Los desafíos y las tendencias nuevos en el campo de la salud reproductora sexual" [New challenges and trends in the field of sexual reproductive health], no. 10. Mexico City: Population Council, Fundación Mexicana para la Planeación Familiar, MEXFAM, Frente por el Fortalecimiento de la Cultura Laica, and the Interdisciplinary Program of Women Studies of El Colegio de México.

"Improving the reproductive health of adolescents in Kenya," Frontiers Project Update no. 2. Nairobi: Population Council.

KHAN, ARJMAND BANU and Anne Gathuku.

"Building livelihood options for adolescent girls and boys in Kenya," Research Update. Nairobi: Population Council.

"Peru client-provider interaction: Quality of care project," Frontiers bulletins nos. 1-18. Lima: Population Council.

SEBASTIAN, MARY PHILIP, DALE HUNTINGTON, Barbara Mensch, Wesley Clark, Shahina Begum, Bela Patel Uttekar, and SOHINI ROYCHOUDHURY. "Midline survey results: Integrating adolescent livelihood activities within a reproductive health program for urban slum dwellers in India," Frontiers Project Update no. 3. New Delhi: Population Council.

Electronic Publications

SCHIAVON, RAFFAELA. "Contraceptive options in court?" electronic letter, www.bmj.com/cgi/letters/324/7334/381#19856.

Policy Research Division

BONGAARTS, JOHN. "The end of the fertility transition in the developing world," in *Completing the Fertility Transition*, UN document ESA/P/WP.172/Rev.1. New York: United Nations, Department of Economic and Social Affairs, Population Division, pp. 288-307.

CASTERLINE, JOHN B. *HIV/AIDS and Fertility in Sub-Saharan Africa: A Review of the Research Literature*, UN document ESA/P/WP.174. New York: United Nations, Department of Economic and Social Affairs, Population Division.

———. See Palabrica-Costello and CASTERLINE (International Programs Division); Sathar and CASTERLINE (International Programs Division).

HEWETT, PAUL. Review of Peter Lloyd Sherlock (ed.), *Healthcare Reform and Poverty in Latin America*, *Population and Development Review* 28(4): 811.

Lin, Ge and ZACHARY ZIMMER. "A geographical analysis of spatial differentials in mobility and self-care limitations among older Americans," *International Journal of Population Geography* 8(6): 395-408.

MCNICOLL, GEOFFREY. Review of Patrick J. Buchanan, *The Death of the West: How Dying Populations and Immigrant Invasions Imperil Our Country and Civilization*, *Population and Development Review* 28(4): 797-800.

———. Review of Zdeněk Pavlík (ed.), *Position of Demography Among Other Disciplines*, *Population Studies* 56(1): 114-115.

Menken, Jane, Ann K. Blanc, and CYNTHIA B. LLOYD (eds.). *Training and Support of Developing-Country Population Scientists: A Panel Report*. New York: Population Council.

Nyonator, Frank, Comfort Agbadja, Dennis Gbeddy, George Nyarko, TANYA C. JONES, Robert A. Miller, and JAMES F. PHILLIPS. *Community-Based Health Planning and Services (CHPS) in Ghana: A Multi-Level, Qualitative Assessment in the Volta Region*. Accra: Ghana Health Service, Policy, Planning, Monitoring and Evaluation Division.

Paolisso, Michael J., KELLY HALLMAN, Lawrence Haddad, and Shibesh Regmi. "Does cash crop adoption detract from child care provision? Evidence from rural Nepal," *Economic Development and Cultural Change* 50(2): 313-337.

Ruel, Marie T., Bénédicte de la Brière, KELLY HALLMAN, Agnes Quisumbing, and Nora Coj. "Does subsidized childcare help poor working women in urban areas? Evaluation of a government-sponsored program in Guatemala City," Food Consumption and Nutrition Division Discussion Paper no. 131. Washington, DC: International Food Policy Research Institute.

ZIMMER, ZACHARY and Sovan Kiry Kim. "Living arrangements and socio-demographic conditions of older adults in Cambodia," *Abstracts in Social Gerontology* 45(4): 449.

POPULATION BRIEFS

June 2003

Vol. 9, No. 2

Population Briefs is a research newsletter of the Population Council. The Council is an international, nonprofit, non-governmental organization that seeks to improve the well-being and reproductive health of current and future generations around the world and to help achieve a humane, equitable, and sustainable balance between people and resources. The Council conducts biomedical, social science, and public health research and helps build research capacities in developing countries. Established in 1952, the Council is governed by an international board of trustees. Its New York headquarters supports a global network of regional and country offices.

Writer/Editor

Gina Duclayan

Editorial Board

Anrudh Jain, Cynthia B. Lloyd, Melissa May, Irving Sivin

Production Manager

Y. Christina Tse

Production Artist

Sura Rosenthal

Copyeditor

Robert Heide

Editorial Assistant

Jared Stamm

Circulation

Debra Warn

Population Briefs is distributed without charge. Information in this newsletter may be reproduced without permission, provided it is distributed without charge and the source is acknowledged.

Population Council

One Dag Hammarskjöld Plaza
New York, NY 10017
fax: (212) 755-6052
e-mail: pubinfo@popcouncil.org
<http://www.popcouncil.org>

To receive e-mail when a new issue of *Population Briefs* is posted to the Population Council Web site, register at our Media Center: www.popcouncil.org/mediacenter/lists/default.html

ISSN 1084-6786

©2003 The Population Council, Inc.

Printed in the USA on recycled paper

Other Council Publications

DEMENY, PAUL. "Population and food security in the 21st century," book review, *Pathways* (July/September): 49.

———. "Prospects for international migration: Globalization and its discontents," *Journal of Population Research* 19(1): 65-74.

Population Briefs 9(1)

Population Council Annual Report 2002

Population and Development Review 29(1)

Studies in Family Planning 34(1)