foods.<sup>5</sup> Additional intervention studies, with better research designs that address individual, interpersonal, community, environmental, cultural, and policy determinants of gestational weight gain, are needed to identify effective clinical and population-based strategies to help women meet the guidelines about gestational weight gain.

Ludwig and Currie do not have data for the effect of gestational weight gain on other child outcomes such as obesity. A study with data from the Avon Longitudinal Study of Parents and Children (ALSPAC)7 found that women who gained more weight than was recommended by the Institute of Medicine's guidelines had babies with greater adiposity, higher systolic blood pressure, C-reactive protein, interleukin 6, and leptin, and lower concentrations of HDL cholesterol and apolipoprotein A1 at 9 years of age. This study also found that maternal prepregnancy weight was more often associated with adiposity and cardiovascular risk factors in babies than was gestational weight gain, and that adjustment for birthweight did not substantially alter the associations of prepregnancy weight and gestational weight gain with these later child-health outcomes. The ALSPAC study shows the value of a prospective population-based birth cohort, above and beyond what can be learned from birth-certificate data. The recently launched National Children's Study<sup>8</sup> in the USA will further contribute to this emerging knowledge.

A higher prepregnancy body-mass index and excessive gestational weight gain are most probably risk factors for increased birthweight, a range of perinatal complications, postnatal adiposity, and other metabolic changes associated with poor health outcomes, including childhood obesity.<sup>5</sup> Although a better understanding of the effect of gestational weight gain on the developing fetus and metabolic functioning of the newborn child is important, research is urgently needed into how to help women of reproductive age attain and maintain a healthy weight before and during pregnancy. With a growing focus on preconceptional health,<sup>9</sup> there is an opportunity to develop effective interventions to help women conceive at a healthier weight. More effective population-based strategies are needed to produce healthier life-long weight trajectories, and to interrupt the cross-generational cycle of excessive weight gain.<sup>10</sup>

### \*Neal Halfon, Michael C Lu

Center for Healthier Children, Families, and Communities, University of California, Los Angeles, CA 90024, USA nhalfon@ucla.edu

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## Japan's new global health policy: 2011–2015

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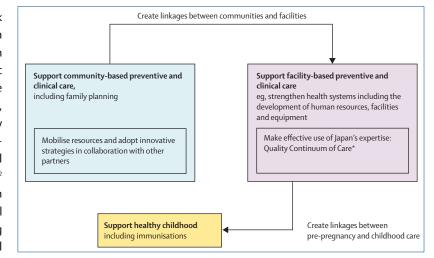
Next week, world leaders will come together at the UN to accelerate progress towards the Millennium Development Goals (MDGs). At this important milestone, Japan will renew its commitment to the MDGs and redefine its role to achieve them. There is not much time until the MDG deadlines in 2015, and "business as usual" attitudes will not allow any real breakthroughs to be made to meet the health MDGs. Japan's new global health policy responds to current demands, with the aim of preventing hundreds of thousands of needless maternal and child deaths by focusing on the strengthening of health systems—the most off-track MDG. This new policy was formulated because global health is a matter of life and death, and thus fundamentally affects human security. The latest public survey shows strong support by the general public in Japan towards strengthened health assistance.<sup>1</sup>

Japan's global health policy will be launched next week with three pillars of: maternal, newborn, and child health (MNCH); major infectious diseases; and contribution to global public health emergencies, such as pandemic influenza. Japan's MNCH support model will be to Ensure Mothers and Babies Regular Access to Care (EMBRACE, figure), a central component of the new policy. A policy package that recognises the continuum of care from prepregnancy to after childbirth is key to reducing maternal and neonatal mortality, and is gaining global consensus.<sup>2</sup> Sufficient antenatal care, access to facilities, skilled health workers, improved facilities and equipment, and postnatal care (including immunisations) are all essential to improving MNCH, but a single intervention for such a continuum will not produce results. All of Japan's partner countries, donors, international organisations, and civil societies understand that point, and will promote a package that connects each component. The idea to combine each component is supported by studies<sup>2</sup> and is based on Japan's experiences of reducing maternal and neonatal mortality through post-war poverty and economic growth.<sup>3</sup> The purpose of our package is to disseminate this knowledge in a replicable manner to partner countries, donors, and civil societies.

I strongly believe that Japan's policy will make important contributions with a new framework. The first point is that the package will work, on the basis of sound evidence. In the policy formulation process, our foreign policy team worked with health professionals, academics, and non-governmental organisations, and incorporated the best and most recent knowledge and experience to ensure expertise and transparency. For example, because of the importance of interventions that reduce maternal mortality,<sup>4</sup> and because neonatal deaths account for nearly 40% of all deaths in children aged under 5 years,<sup>5</sup> the policy focuses on delivering a more effective package of proven interventions for maternal and newborn survival by ensuring sustainable health-system strengthening.

Second, results will be made public. Previously, most donors (including Japan) focused on inputs to health systems. Japan will promote accountability and show number of lives saved. The new strategy emphasises setting quantifiable outcomes, strengthening investments in quality monitoring and evaluation, and ensuring the use of evidence for policy.

Third, Japan will work with partners more effectively and efficiently by strengthening multi-stakeholder partnerships with other governments, multilateral



#### Figure: Ensure Mothers and Babies Regular Access to Care (EMBRACE)

EMBRACE is package of effective interventions to save the lives of mothers and babies in partnership with all stakeholders, with a broad approach, including better infrastructure, safe water and sanitation, and other social developments. \*Focus not only on delivering integrated services from pre-pregnancy to childhood, but also on providing high-quality services (explicit, evidence-based, cost-effective packages of interventions) to improve outcomes of health care.

agencies, philanthropic donors, non-governmental organisations, civil society, and businesses. The knowledge and tools needed to save millions of lives have dramatically advanced,<sup>6,7</sup> but only a few, largescale and proven interventions have been delivered.<sup>8</sup> Japan's new strategy emphasises scaling up high-impact interventions, to create better results than before. Moreover, we aim to fill the "know-do" gap between knowledge from biomedical research and clinical trials, and implementation of that knowledge on the ground. I hope that this new global health policy is one that responds not only to the concerns of the public in Japan, but also to global expectations.

### Katsuya Okada

Ministry for Foreign Affairs of Japan, Chiyoda-ku, Tokyo 100-8919, Japan

sayako.kanamori@mofa.go.jp

I am the Minister for Foreign Affairs.

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## Tuberculosis control is crucial to achieve the MDGs

8

See The Lancet Commissions page 991 When world leaders signed the UN Millennium Declaration in 2000, they were united around one common agenda—to eradicate poverty. The leaders agreed to meet eight Millennium Development Goals (MDGs) by 2015; goals that are not only about extreme poverty, but also about education, maternal health, child mortality, public health, environmental sustainability, and biodiversity. The MDGs emphasise the need for an integrated partnership approach, and MDG 6 aims to combat major pandemics and to set the target for reversing the global incidence of tuberculosis by 2015.<sup>1</sup>

There have been improvements in tuberculosis control over the past 15 years. Between 1995 and 2008, 43 million tuberculosis patients were treated and 36 million cured through national Directly Observed Treatment Short-course programmes, therefore saving an extra 7 million lives.<sup>2</sup> The incidence of global tuberculosis peaked in 2004; however, subsequent decline has been very slow and the absolute numbers have not decreased. Tuberculosis, or the white plague, remains a worldwide scourge, which devastates lives

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especially in sub-Saharan Africa. Globally, there were 9.4 million new cases of tuberculosis in 2008, 1.7 million deaths (more than half among women), and half a million deaths among people with HIV. The elimination of global tuberculosis by 2050, as envisaged by the Stop TB Partnership,<sup>3</sup> is far off target.

Because tuberculosis control is integral to achieving the MDGs, increased and sustained efforts are required. Every year, up to a quarter of the 2 million HIV-related deaths are due to tuberculosis,<sup>4</sup> therefore improved efforts in joint tuberculosis and HIV control are crucial. Importantly, tuberculosis control also contributes to declines in mortality among children (aged under 5 years) and among women of childbearing age<sup>5</sup> (for women, approximately 2 million lives were saved between 1995 and 2008), thereby helping progress towards MDG 4-to reduce mortality by two-thirds in children aged under 5 years from its 1990 level-and MDG 5-to reduce maternal mortality by three-quarters by improving maternal health. Gains in tuberculosis control have been achieved through a partnership approach as envisaged in MDG 8, with the Stop TB Partnership having an important part. Despite successes in tuberculosis control, in the availability of inexpensive curative treatment, and in the visible contributions to MDGs 4, 5, 6, and 8, major challenges remain.

Tuberculosis is still rooted in poverty and inequity (including gender inequalities). In low-income and middle-income countries, tuberculosis predominates in the poor who remain economically and socially excluded, and in women who bear the brunt of the HIV burden in sub-Saharan Africa. Beyond ill health, tuberculosis fuels poverty. Catastrophic expenditures for tuberculosis sink those affected by the disease and their families further into poverty. Therefore, efforts to prevent the spread of tuberculosis extend far beyond health benefits for the individual patient and beyond the health MDGs.