PACIFIC HEALTH SUMMIT
LONDON 2010

Summit Challenge

Connecting science, industry, and policy for a healthier world

Maternal and Newborn Health

The Crux of a Decent Humanity

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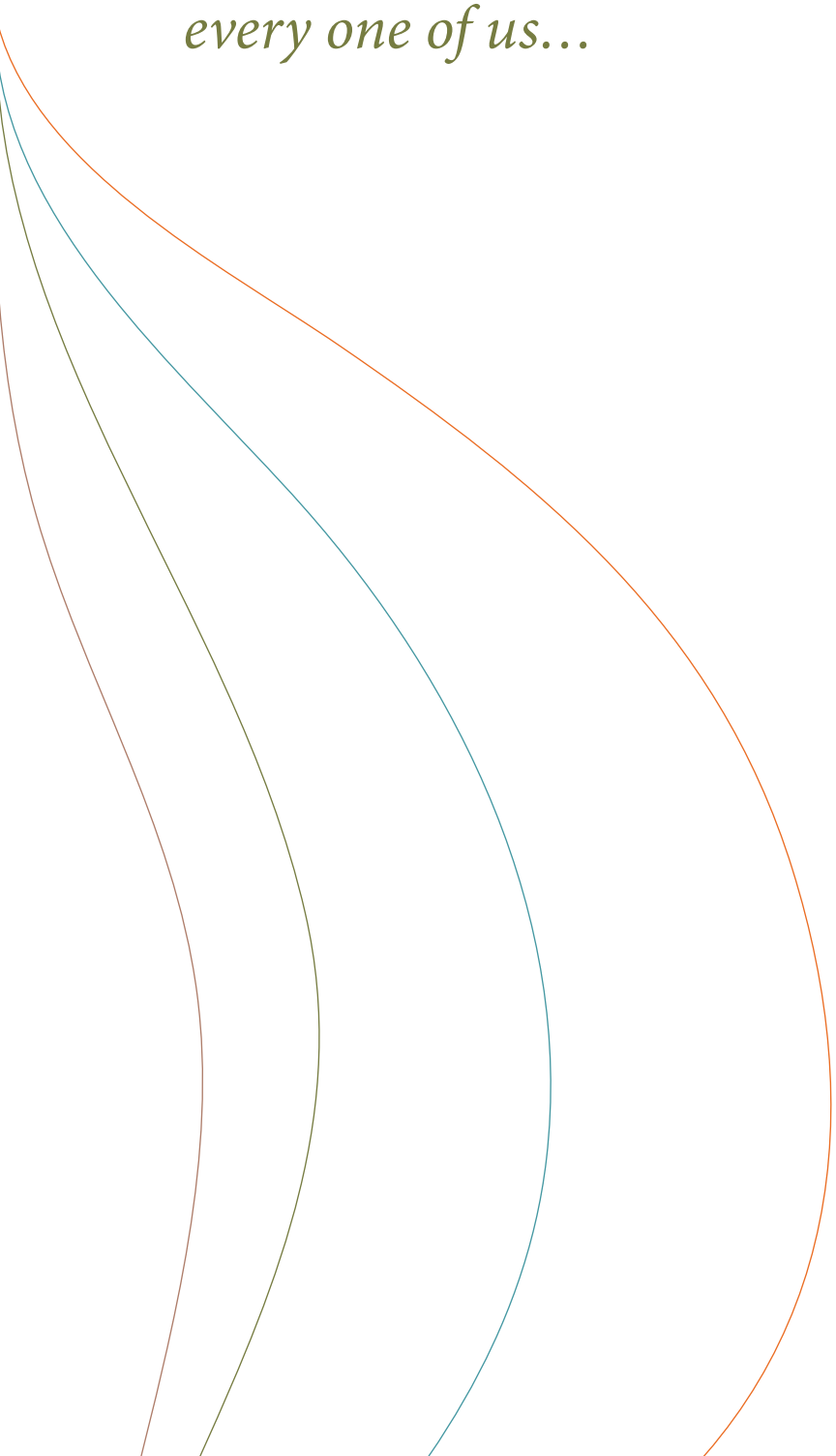
A personal call to action to each and every one of us…



2010 Summit Challenge

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About the Summit

Mission

The mission of the Pacific Health Summit is to connect science, industry, and policy for a healthier world through discussions that join scientific advances and industrial innovation with appropriate policies for the prevention, early detection, and early treatment of disease.

Participants and location

Every June, the Summit assembles 250 leaders from science, industry, policy, civil society, public health, and academia to discuss how to realize the dream of a healthier world. Through formal and informal discussions over three days, we hope to build the foundations of creative partnerships and enlist new partners in global health. The Pacific Health Summit has taken place in Seattle since 2005; starting in 2010, it will rotate between Seattle and London.

Operations

The Summit is a year-round process. In addition to the June meeting, the Summit provides an ongoing forum for world leaders to improve health by collaborating on problems and solutions, sharing best practices, and forging effective partnerships. The Center for Health and Aging at The National Bureau of Asian Research serves as the Secretariat for the Pacific Health Summit.

Thematic focus

Each year the Pacific Health Summit focuses on a single theme designed to tackle an important issue in global health. This year, our theme is "Maternal and Newborn Health: The Crux of a Decent Humanity." Past Summit themes include MDR-TB (2009), malnutrition (2008), and pandemic influenza (2007).

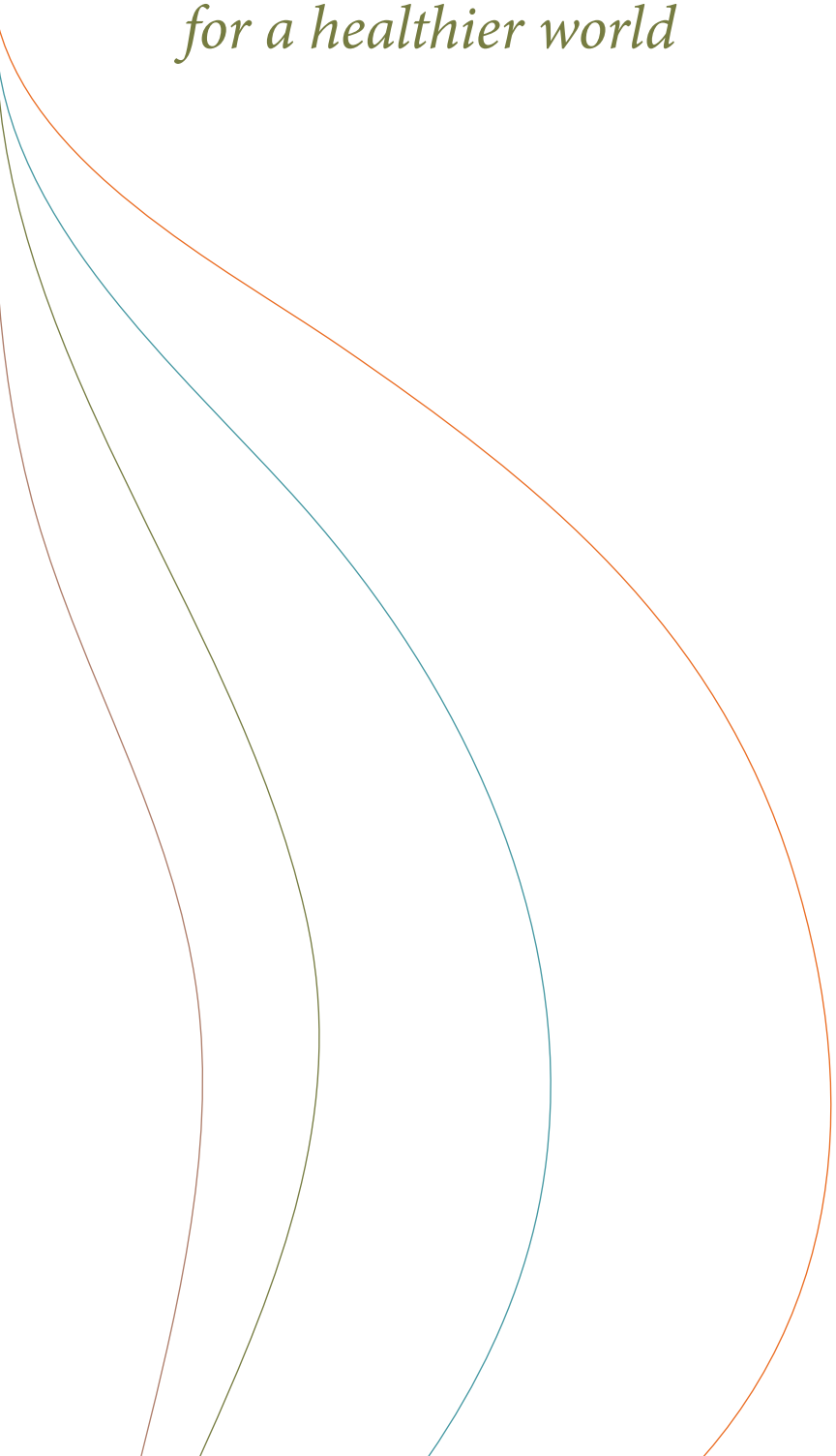
Geographical focus

Although our initial focus was on the Asia-Pacific, over the years the Summit has expanded globally. Recognizing that there are no borders around the human and financial cost of disease, we focus worldwide on innovation and opportunities.

Organization

The Summit is co-presented by the Fred Hutchinson Cancer Research Center, the Bill & Melinda Gates Foundation, Wellcome Trust, and The National Bureau of Asian Research (the Summit Secretariat) and is governed by a Senior Advisory Group chaired by Sir Mark Walport. The Summit's Executive Director is Michael Birt, and Claire Topal serves as Managing Director.

Connecting science, industry, and policy for a healthier world



The Summit's Challenge— A Call to Personal Action

Michael Birt,
Executive Director, Pacific Health Summit
Director, Center for Sustainable Health
Biodesign Institute, Arizona State University

Claire Topal,
Managing Director, Pacific Health Summit
Director, Center for Health & Aging
The National Bureau of Asian Research

While institutional affiliations are important, we believe that it is the personal interactions among global leaders that will lead to durable and significant collaborations between countries, sectors, and organizations.

Beginning with our inaugural Summit in 2005, our *Summit Challenge* has always expressed the context, aspirations, and expectations for each year's meeting. As the title suggests, we "challenge" our attendees to make things happen. While institutional affiliations are important, we believe that it is the personal interactions among global leaders that will lead to durable and significant collaborations between countries, sectors, and organizations.

Each Summit participant has been personally recommended by another leader and occupies a place of importance in the global network of thinkers and doers. The Summit community represents a growing group of dedicated and engaged leaders working to move thoughtful discussion toward transformative action. So, in the end, the results of the 2010 Pacific Health Summit depend upon *you*—and your ability to find common cause among like-minded and highly motivated leaders.

Looking back on six Summits, we have seen time and time again how dedicated individuals can make a difference, often in unanticipated ways. We have seen vaccine institutes created, global stockpiles established, landmark business collaborations launched, and the formation of longstanding friendships that make up the critical foundation of our future's cutting-edge partnerships and communication.

The vision for a *Pacific* Health Summit came out of a sense that what was happening in science and technology in Asia and the Pacific region could catalyze a transformation in healthcare from a reactive model to one based on prevention, early detection, and early treatment of disease. Over the years

this concept evolved and the Summit has expanded globally, focusing worldwide on innovation and opportunities, and recognizing that there are no borders around the human and financial cost of disease. At the same time, leaders in the science and technology field recognize our name and associate it with our annual gatherings as a place for them to connect and collaborate both with the private sector and with policymakers.

Though we have expanded beyond the *Pacific*, we will remain the Pacific Health Summit. Seattle was the venue for the first five Summits. It is the city where the Summit was initially conceptualized and home to our founding organizations: the Fred Hutchinson Cancer Research Center, the Bill and Melinda Gates Foundation, and The National Bureau of Asian Research, which has served as the Summit Secretariat since its inception. In an effort to globalize the Summit, we will rotate the annual gathering between Seattle and London. The home of our fourth co-presenting partner, the Wellcome Trust, was the natural selection, and we have been deeply touched by the support and encouragement that we have received from our friends and colleagues in the UK.

Our mission to "connect science, industry, and policy for a healthier world" brings together three critical dimensions necessary for substantive and sustainable progress. Importantly, the Summit has looked to the business sector as a catalyst to translate discovery into appropriate technologies, products, and services that deliver better health. This innovative role for the business sector is particularly crucial in light of our Maternal and Newborn Health (MNH) theme in 2010.

We have spent the past year listening to each of you—the Summit's agenda was developed in close cooperation with the MNH community around the world. As a result, we have a unique moment in time to come together and join hands with the business sector to form effective partnerships.

As we note every year, this *Summit Challenge* is nothing less than a personal call to action to each and every one of us.

We have seen vaccine institutes created, global stockpiles established, landmark business collaborations launched, and the formation of longstanding friendships that make up the critical foundation of our future's cutting-edge partnerships and communication.

Leveraging Technology Solutions in Maternal-Infant Care

Mike Barber, Vice President, healthymagination, GE

As the global community works toward the reappraisal of the way healthcare technologies are created and used, we are interested in working with others to change the way new products are developed.

With just five years to go, reaching the 2015 Millennium Development Goal (MDG) 5 target[1] will require new levels of cooperation among everyone, from doctors to midwives, governments to NGOs, and researchers to businesses. It will also require a reappraisal of the ways in which healthcare technologies are developed and deployed, especially in areas where neonatal mortality rates are the highest.

As a global, technology-based, diagnostics and healthcare company, GE Healthcare sees its critical contribution as making cost-effective life-saving technology more accessible in semi-urban and rural areas, which often bear the brunt of the disease burden. In India, for example, where the challenges of neonatal care are severe, we are working with local governments to improve the medical infrastructure with equipment, service, and training support. Specifically, we are helping to upgrade the Banavaram Primary Health Center in Tamil Nadu's Vellore district, where the government's goal is to encourage more births in a well-equipped, well-staffed, and safe birthing environment.

Helping to reach the 2015 target means a lot to us. As part of our healthymagination commitment, we will expand our Maternal-Infant Care portfolio by 35 percent. Because cross-sectoral partnerships are crucial, we will work with governments, multi-laterals, and NGOs to provide targeted technologies to over 80 countries in order to increase access to safe, affordable, and appropriate technologies, such as simple-to-use baby warmers and phototherapy units to treat jaundiced infants—all designed to meet local needs and circumstances.

As the global community works toward the reappraisal of the way healthcare technologies are created and used, we are interested in working with others to change the way new products are developed. We have adopted an "in-country, for-country" approach to product development, increasingly working in partnership with end-users to design, test, and manufacture local products for local use. This more inclusive approach allows us to speed delivery, address critical contextual needs, such as space limitations or simplicity of service, and minimize costs.

New technologies often capitalize on today's consumer electronics explosion, making advanced capabilities more affordable and portable than ever before. For instance, high-capability ultrasound is now available in hand-held, battery-powered units that are not much larger than a mobile phone. Ease of use is also a key feature, and therefore, subject to the necessary regulatory approvals. This technology—ubiquitous in every developed country's maternity suites and clinics—could become more widespread in rural and underserved geographies. Similar miniaturization is available for electrocardiograms and other diagnostic and monitoring systems that were once too expensive, technical, or large for widespread use in many parts of the developing world.

This technology—ubiquitous in every developed country's maternity suites and clinics—could become more widespread in rural and underserved geographies.

The 2010 Pacific Health Summit brings together the stakeholders necessary to clarify and activate the processes necessary to achieve this vision of the future role of technology in helping to meet MDG 5. We're pleased to be a part of the dialogue.

[1] Reduce under-five mortality by two-thirds.

A Coordinated Approach to Understanding and Improving Maternal and Newborn Health

Sir Leszek Borysiewicz, CEO, Medical Research Council

We will realize the biggest success from our investments when the global health donor community funds development work, not with a disease-specific strategy, but rather through large-scale partnerships between agencies, with governments, and by involving communities.

The topic of this year's Pacific Health Summit has received much political focus, and I believe that reaching the goals that the Summit has outlined requires a coordinated approach, driven by the needs of local institutions and communities.

Why is partnership so important to this area in particular?

The health of a mother and her child is intrinsically linked to other health challenges—such as infections, noncommunicable diseases, nutrition, and mental health. The link between the HIV epidemic and the maternal mortality rate is particularly strong.

Social and economic conditions are also of major importance, particularly because the strength of health systems is widely acknowledged as a primary factor in determining maternal and newborn health. Moreover, future conflicts, environmental change, and political instability will continue to weigh against the achievable advances in the health of mothers and their children.

We will realize the biggest success from our investments when the global health donor community funds development work, not with a disease-specific strategy, but rather through large-scale partnerships between agencies, with governments, and by involving communities.

Funding opportunities must encourage development of these global multidisciplinary partnerships by forming alliances across agencies that can bring together the required resources and expertise. To achieve impact we have learned that we must integrate clinical, laboratory, methodological, and social and economic sciences. Events such as the Pacific Health Summit provide major catalysts for such links.

For instance, we have learned from recent large-scale clinical trials, such as DART (Developing Antiretroviral Therapy), that it is possible for research to help us to make major advances in understanding the best models of health delivery. Partnerships between scientists and healthcare workers from Africa and Europe, and the involvement of community groups, were crucial to the outcomes of this trial and will be of great importance in making advances in other areas of health delivery.

Additionally, we increasingly recognize from previous investments that the most successful work is funded when it is contextualized, embedded in local systems, and has the involvement of the local community and decision-makers. This is because interventions often depend on effecting behavior and cultural change at the community level. The area is a complex one, and we must ensure that the methodologies are robust and also fit-for-purpose locally—with leadership of such interventions firmly based in local institutions.

We can maximize the benefits of research investment by pulling together the immense range of expertise that we already have globally in this field. Links with the private sector are vital here—colleagues in industry seek innovative ways to effect change in remote and resource-poor areas, and many have a clear appetite to use their funds and skills for health development.

Let us leverage the Summit to build our understanding of different sectors, and find common ways of working and developing partnerships so that research funders can seek to make a sustainable difference directly to maternal and newborn health.

Links with the private sector are vital here—colleagues in industry seek innovative ways to effect change in remote and resource-poor areas, and many have a clear appetite to use their funds and skills for health development.

A Make-or-Break Year

Dame Sally Davies, Chief Medical Officer (Interim) and Director-General, Research and Development, UK Department of Health and National Health Service

Given the enormity of this picture, it is easy to overlook the challenges that remain in well-resourced countries.

Currently, the average maternal mortality rate for Western Europe is around 7 deaths per 100,000 maternities. In some countries, however, that number is nearer to 1,500.

As an outsider to the field of maternal and newborn health, I just do not understand why.

Most such deaths are easily preventable, yet women and babies are not dying because their conditions are hard to manage. They are dying because they do not receive the healthcare that they need, including access to basic or emergency maternity care and a skilled attendant during childbirth. How to overcome these barriers and obtain sustained political goodwill backed up by the resources required are, to my mind, key areas for global health research.

Given the enormity of this picture, it is easy to overlook the challenges that remain in well-resourced countries. Even though the UK has one of the safest maternity care systems anywhere we, too, have stark inequalities in the pregnancy outcomes between different groups of society. For example, single unemployed mothers face at least a tenfold risk of dying; their babies are also disadvantaged. Other challenges include a rising birth rate, more migrant women with difficult pregnancies, an increasing number of mothers with complex pre-existing maternal disease and, underlying this, a generation of women, many of whom are as not as fit and healthy as their mothers were in the past.

We have done well in the development of national evidence-based policies and standards, and we now need to turn our attention to other areas where we know there is room to improve. These include pregnancy planning, preconception care, and the care of vulnerable pregnant women and those

with complex medical, social, or mental health needs. We also underestimate the effect of postnatal mental illness on family development. As a result of these issues, we are now commissioning research that builds on already available evidence about the importance of good maternal and paternal health before and during pregnancy. This should enable us to develop policies that lay the foundation for healthy fetal development and shape physical and emotional health outcomes from childhood to adult life.

Compared with cancer or HIV, there is little money for maternal and newborn health research. The limited resources that are available come largely from charitable foundations or publicly funded programs. If the business sector had financial incentives to invest in extensive MNH research programs then surely we would have seen more advances by now. How do we maximize existing resources while engaging more partners and creating opportunities for new investment?

It behooves us in the research community to collaborate and maximize use of the scarce resources we have. One way is to bring closer together critical masses of professional researchers, leaders from business, innovative policymakers, and other motivated individuals in order to avoid duplication and capitalize on the synergy such a move would bring. The Pacific Health Summit offers us this venue, and we must take full advantage of it.

If the business sector had financial incentives to invest in extensive MNH research programs then surely we would have seen more advances by now. How do we maximize existing resources while engaging more partners and creating opportunities for new investment?

Realizing the Vision of the Pacific Health Summit

Lee Hartwell, President & Director, Fred Hutchinson Cancer Research Center

We call on our academic, clinical, industry, and government partners to come together to create a new approach to medicine based on evidence provided by our increasing understanding of human biology.

The original vision of the Pacific Health Summit was to reorient healthcare priorities toward the prevention, early detection, and early treatment of disease, empowered by advances in molecular diagnostics and enabled by bringing together the world's most knowledgeable and influential people.

As we arrive at our sixth Summit, we have begun to realize this vision, which has become an even greater imperative to contain runaway healthcare costs and improve human well-being.

Technological advances in recent years have helped us achieve new heights of discovery: We can now monitor each human protein accurately, sensitively, and inexpensively. We have identified new molecular entities and are able to access global information easily and immediately. We must put these new capabilities to work on the challenges that cut at the core of our humanity—such as maternal and newborn health—and create a roadmap to deliver effective diagnostics to clinical practice.

The Summit's current roadmap of early-stage commercialization was built on a therapeutics model that does not work for diagnostics. We must build a new model that incentivizes development in the non-profit sector in order to validate a panel of molecular signatures that is effective both for improving patient outcomes and for reducing healthcare costs.

We call on our academic, clinical, industry, and government partners to come together to create a new approach to medicine based on evidence provided by our increasing understanding of human biology.

What began as a glimpse of a healthier future at the inaugural Pacific Health Summit in 2005 is rapidly becoming a tangible prospect to which it is worth dedicating our effort.

As we arrive at our sixth Summit, we have begun to realize this vision, which has become an even greater imperative to contain runaway healthcare costs and improve human well-being.

Ensuring a Healthier Future for Mothers and Newborns

Sheri McCoy, Worldwide Chairman, Pharmaceuticals, Johnson & Johnson

Imagine the difference that could be made if mothers with HIV could live at least a decade longer.

We all recognize that effective maternal and newborn health can set the course for a healthy life. People and communities must be educated and empowered, as health literacy and communication can improve health practices and healthcare delivery.

The healthcare industry can play an important role in bringing safe and effective solutions for the world's major healthcare problems, such as the prevention of mother-to-child-transmission of HIV/AIDS. This condition is inextricably linked to maternal and newborn health: an estimated 430,000 children were newly infected with HIV in 2008, 90 percent of them through mother-to-child-transmission.[1]

Globally, HIV/AIDS is now the leading cause of mortality among women of reproductive age, and in several high-burden countries HIV is the leading cause of maternal mortality.[2] Major progress has been made in the treatment of HIV with antiretroviral combination therapy. Significant impact could be made by providing long-term HIV treatment—new simplified and safe treatment combinations (one pill, once a day)—to infected mothers. Healthy mothers can take care of their children and prepare them for a healthy life.

Imagine the difference that could be made if mothers with HIV could live at least a decade longer.

For the sake of at-risk mothers and babies, we must explore the full range of promising means for prevention of transmission, including microbicides, antiviral medication, vaccines, and other approaches.

Collaborations—between governments, NGOs, international organizations and industry—are key to success, whether in identifying treatment solutions or improving health literacy. Some of the promising developments we are involved in are collaborations on a microbicide for resource-poor countries and a new drug for the treatment of tuberculosis. In Africa, we support a program with mothers2mothers in which HIV-positive mothers counsel pregnant women with HIV about medications, nutrition, formula feeding, and dealing with stigma. Almost all the babies born from mothers in this program have been HIV-negative. Mentor mothers are trained and paid, making them financially independent and role models for others.

Collaborations—between governments, NGOs, international organizations and industry—are key to success, whether in identifying treatment solutions or improving health literacy.

In the United States, text4baby, a free mobile health service, is directed to underserved women, who often rely on cell phones to stay connected. Text messages deliver prenatal and infant care information and refer women to local prenatal and infant care services. This collaboration, for which we were a founding sponsor, launched with the White House early in 2010 and could be a model for global use.

The many interests gathered here at the Pacific Health Summit suggest both the extent of the need and the shared commitment to solutions. As a mother and a committed industry member, I am proud to be part of shared efforts to ensure the health of our children and of our collective future.

[1] World Health Organization, "PMTCT Strategic Vision 2010-2015: Preventing mother-to-child transmission of HIV to meet the UNGASS and Millenium Development Goals" (Switzerland: 2010), http://www.who.int/hiv/pub/mtct/strategic_vision.pdf.
[2] Ibid.

Maternal and Newborn Survival is More Important than Erectile Dysfunction

Jeremy Shiffman, Associate Professor of Public Administration and Policy, American University

...from an economic and political perspective this imbalance is understandable, and illustrative of a more complex issue: upper and middle-class men wield great market and social power, and business and political leaders must respond to their interests if they hope for their organizations to thrive.

Leaders of many businesses, national governments, international organizations, and NGOs express concern about the millions of women and babies who die each year surrounding childbirth. But talk is cheap; the proof is in resources allocated. And funding for maternal and newborn survival is smaller than the combined American and European erectile dysfunction drug market.

It seems unfair that a sexual problem among men in high-income countries should be accorded greater importance than the deaths of four million women and babies in low-income settings. However, from an economic and political perspective this imbalance is understandable, and illustrative of a more complex issue: upper and middle-class men wield great market and social power, and business and political leaders must respond to their interests if they hope for their organizations to thrive. By contrast, women and babies in low-income settings do not hold such power, and addressing their needs offers little promise for immediate profit or the retention of political office. Even leaders of international organizations and NGOs, who may be inclined to address maternal and newborn survival, face pressure to prioritize other global health problems backed by more vocal advocacy groups.

Sustained progress on this issue will be difficult unless leaders genuinely accept the problem's importance and follow up with resources. With concerned individuals gathered from multiple sectors, this Summit presents an excellent opportunity to develop approaches for changing leadership behavior. But doing so demands careful consideration of *incentive structures*. What might leaders hope to gain for themselves and their organizations by pursuing a humanitarian cause such as maternal and newborn survival?

An enhanced reputation: Politicians may hope to establish enduring legacies. International organizations and NGOs may seek global recognition for their work, including acknowledgement for having helped to achieve MDGs 4 and 5 on child and maternal survival. Corporations may seek a better public standing—with positive spin-offs for the bottom line and gaining the favor of social activists—a motivation that has spurred numerous health-oriented corporate social responsibility initiatives.

More power: Politicians may wish for the respect of their constituencies that translates into support for their tenure in office. International organizations and NGOs may seek more resources and turf. Corporate leaders may desire access to politicians.

The intrinsic reward of acting on conscience: Social science research provides ample evidence that political and business leaders are motivated not only by what is called "the logic of consequences" (roughly: self-interest) but also by "the logic of appropriateness": a desire to do what is right. Leaders may be seeking this inherent benefit.

Of these three drivers, only the third corresponds to a motivation we associate with our better selves. But if we confine our attention only to this driver, we may risk perpetuating the problem of much talk and little action. Proponents for other public health causes find creative ways to tap into the multiple drivers of leadership behavior, not just the ones they like. Proponents for maternal and newborn survival ought to do the same.

Of these three drivers, only the third corresponds to a motivation we associate with our better selves. But if we confine our attention only to this driver, we may risk perpetuating the problem of much talk and little action. Proponents for other public health causes find creative ways.

Toward 2015: Healthcare Companies and Health MDGs

Chris Viehbacher, CEO, sanofi-aventis

Where are we now, five years before the 2015 deadline? And what can healthcare companies bring to this challenge?

In September 2000, world leaders adopted the United Nations Millennium Declaration, committing nations to a global partnership to reduce extreme poverty. Eight MDGs resulted, several of which are directly linked to this year's Summit theme of maternal and newborn health. Where are we now, five years before the 2015 deadline? And what can healthcare companies bring to this challenge?

MDGs 4 and 5 aim to cut maternal and under-five child mortality, as well as increase universal access to reproductive health. What could be more important than a healthy foundation of our future—mothers and babies? The best intervention, of course, would be to prevent illness in the first place. One major contribution a healthcare company can make to prevention is by developing and manufacturing life-saving drugs and vaccines and making them readily available. Partnerships with international organizations and governments are critical to helping us deliver these tools effectively in areas of greatest need.

But treatment alone is not enough.

Many companies are also committed to leveraging information and education tools to improve health and prevent disease, especially those tools tailored to children and their mothers. Education for healthcare providers and families on the value of proper administration of drugs and vaccines is not only critical for the survival and development of babies and children, but also for mothers, whose health impacts the whole family.

MDG 6 aims to combat HIV, malaria, and other diseases. The private sector can and does play a major role in alleviating the burden of these serious health issues—to which mothers and

babies are particularly vulnerable, not only by producing the tools needed to treat them, but also by developing appropriate pricing systems, approaching the safe manufacturing of drugs as an opportunity to create new jobs, and continuing to innovate in order to simplify arduous drug regimens. For example, we have implemented a no-profit, no-loss system for those who cannot afford malaria treatment, and we are doubling our efforts in 2010. The actual treatment will be produced in Morocco to help support local employment.

For TB, our goal is to reduce drug treatment length from six to four months, and we are also working on a TB vaccine. For dengue fever we are in phase III of a vaccine trial and investing in a production facility which will allow us to launch the vaccine first and widely in endemic countries. We have also made polio eradication a priority and are partnering on polio vaccine provision. Finally, for HIV, an experimental vaccine being developed through a public-private collaboration has recently shown signs of efficacy for the first time, although much work still lies ahead.

MDG 8 tasks us with developing a global partnership for development. Without partnership, we cannot reach the 2015 deadline. I have personally seen the unparalleled value of public-private and private-private partnerships and will continue to follow the best science to bring new vaccines and treatments to those in need.

My colleagues and I, and our industry peers, are committed to the attainment of the health MDGs. The Pacific Health Summit is the ideal forum for us to connect year after year to share strategies and explore new forms of collaboration that will bring us closer to a healthier world.

I have personally seen the unparalleled value of public-private and private-private partnerships and will continue to follow the best science to bring new vaccines and treatments to those in need.

Evidence, Implementation, and Evaluation

Sir Mark Walport, Director, Wellcome Trust

Much more needs to be done to collect, make available, and—most importantly—to use demographic information about health and disease to improve health.

Improving maternal and newborn health is a major challenge in many countries, but a better understanding of the scale of the problem is essential if resources are to be appropriately targeted. Absence of health data is often a major barrier to measuring the extent of the problem or progress made in health improvement. Surveillance of maternal and newborn child health is incredibly poor.

Accurate and extensive data on the prevalence and incidence of disease enables decision-makers to deploy interventions based on a rational analysis of need. It allows the measurement of outcomes and, hopefully, of improvement in health. The INDEPTH network, which consists of 37 longitudinal demographic surveys in 19 resource-constrained countries, is a splendid example of what can be achieved.[1] These household surveys provide vital health and demographic information, enabling countries to set health priorities and policies based on evidence.

But this is not enough.

Much more needs to be done to collect, make available, and—most importantly—to use demographic information about health and disease to improve health.

Discussions about improving health in under-resourced environments sometimes become embroiled in a competition between implementing what we know and undertaking research to discover new ways to improve health. Although funded by different organizations and conducted by people with different skills, these two activities are both essential, complementary, and mutually interdependent. We need both science and implementation.

Empowering women and improving their educational and social status can have dramatic effects. The Society for Education, Action and Research (SEARCH) study[2] in Gadchiroli, India, demonstrated this clearly, delivering improved care for newborns through the provision of trained birth attendants and health workers in rural locations, as well as support and education to women to enable home-based births and newborn care. This community-based intervention has seen reductions in newborn mortality of over 60 percent. Equally important is improving hospital services to manage serious events that cannot be dealt with at home or in local facilities.

How and when to scale up interventions is one of the greatest challenges. We may know that small-scale interventions under experimental conditions are effective, but we have a long way to go before we can deliver such interventions at scale, or even know whether such delivery is as effective as delivery under experimental conditions. We must make implementation science a priority.

There must be a balance between using resources to take action now and collecting evidence to inform future practice. We also need to be clear about who should pay. Research funders support research, and this may include evaluation of health interventions. However, health delivery at a population scale is the responsibility of healthcare systems and supporting agencies.

The development of trust and the formation of effective partnerships between researchers, policymakers, and those that develop and deliver health systems is key to improving those systems. In addition to supporting research, these funders can and should play catalytic roles in supporting the formation and maintenance of such partnerships. Balancing research, implementation, and evaluation is an issue for all nations, but is crucially important if we are to improve maternal and child health in low- and middle-income countries.

The prize for improving maternal and neonatal health and reducing mortality is huge—there is a natural demographic transition that follows a reduction in child mortality. When children survive, there is reduced pressure to have large families and population growth slows.

How and when to scale up interventions is one of the greatest challenges.

[1] INDEPTH Network website, http://www.indepth-network.org.
[2] Neonatal and Infant Mortality in the Ten Years (1993 to 2003) of the Gadchiroli Field Trial: Effect of Home-Based Neonatal Care. J Perinatol. 2005; 25 (Suppl 1): S92-107.

R&D, Products, and Partnerships—Collaborating for the Health of Mothers and Newborns

Andrew Witty, CEO, GlaxoSmithKline

Many private and public sector organizations have made great strides in reducing maternal and newborn mortality. I am proud of the contribution that GSK has made so far, for example through research on preventative and curative measures against malaria, TB, HIV/AIDS, and cancer, but I know we can and must do more.

Each year more than 350,000 women die in pregnancy or childbirth. Just under nine million children die before their fifth birthday. We need to work in partnership if we are to try and address this issue, and GSK is committed to doing just that.

Many private and public sector organizations have made great strides in reducing maternal and newborn mortality. I am proud of the contribution that GSK has made so far, for example through research on preventative and curative measures against malaria, TB, HIV/AIDS, and cancer, but I know we can and must do more.

I believe there are three priority areas for collective action.

First, government agencies, scientific bodies, and companies need to encourage and deliver *more research into pediatric medicines*. The challenges of pediatric research, including the many scientific, ethical, and logistical complexities involved, have traditionally made pediatric studies more costly than those conducted on adults. As a result, there are far fewer pediatric indications than adult indications for medicines.

Important initiatives include a partnership approach such as the one led by the WHO's "make medicines child size" campaign and the development of the Essential Medicines List for children, which aims to establish priority areas for the development and provision of pediatric medicines. Measures to incentivize research and ensure a coordinated and consultative approach to pediatric medicines should be promoted and replicated.

Second, governments, multilateral agencies, and the private sector need to collaborate in *generating and sustaining funding for affordable healthcare interventions* for mothers and children, and work together to remove financial barriers to access. They can also promote the scaling up of proven interventions. The WHO Partnership for Maternal, Newborn and Child Health (PMNCH) estimates that the lives of at least six million children can be saved each year with proven, cost-effective interventions, costing as little as US$25 per child. Nutrition and vaccination are key amongst those interventions.

Third, all parties must create the necessary *political will* to ensure maternal, newborn, and child health is a priority for government, academia, and the private sector. This will ensure that healthcare interventions for particularly vulnerable groups, such as mothers and newborns, are delivered appropriately.

In line with the guidance from the UN Secretary-General's global effort on women's and children's health, GSK is actively working to increase our engagement through the Joint Action Plan to improve the health of women and children. This plan, in association with the WHO PMNCH, will help us and others ensure that contributions are well-targeted and effective

Finally, GSK is committed to ensuring the widest possible access to our medicines and vaccines through appropriate and sensitive pricing strategies. We have already made progress in this area through our commitment to ensuring that the price of our patented medicines in the least developed countries are capped at no more than 25 percent of the price we sell in Europe and through our re-working our middle income pricing strategy.

If we keep mothers and their families well now, we can improve the health and economy of our future generations. The Pacific Health Summit provides a unique forum for us to discuss and agree upon ways forward.

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Changing the Game to Save Millions

Tachi Yamada, President, Global Health Program, Bill & Melinda Gates Foundation

...sometimes innovation is about taking highly complex technologies and making them affordable and available, or about innovative ways of reaching more people with effective interventions.

Safeguarding the health of mothers and young children is one of the world's most urgent priorities. I am pleased to see that a number of countries, including Ethiopia, Tanzania, Malawi, Bangladesh, and Nepal are increasingly taking up this cause. Donor countries like the United Kingdom, Norway, and the United States are stepping up their funding, and in May 2010 the Group of 8 nations backed a plan by the Government of Canada to double current investments in the health of women and children to $30 billion over the next five years, a move that could prevent the deaths of 1 million women and save the lives of 4.5 million newborns and 6.5 million children under five.[1]

Despite the progress, we know that a staggering amount of work still needs to be done. That is why we need game-changing ideas. We need innovation.

We often think of innovation as the upstream work, coming up with brand new ideas on breakthrough technologies. But sometimes innovation is about taking highly complex technologies and making them affordable and available, or about innovative ways of reaching more people with effective interventions.

Let me take the example of newborn health. In some countries, such as India, Nepal, and Bangladesh, more than half of all the deaths that occur in children under five actually happen in the very first month. Globally, more than 40 percent of all under-five deaths occur in the first month.

[1] Partnership for Maternal, Newborn and Child Health, "Consensus for Maternal, Newborn and Child Health" (Geneva, Switzerland: November 2009), http://www.who.int/pmnch/topics/maternal/consensus_12_09.pdf.

We need new scientific research to help save these lives. We do not know enough about how to induce immunity in newborns, for example, and we need new approaches to preventing and treating eclampsia and birth asphyxia. At the same time, this tragedy persists because we are not delivering what we know works. We know that cutting the cord with a clean blade, keeping the baby warm, initiating breastfeeding within the first hour, and feeding only breast milk during that first critical month and for the next five months all work. Yet infants are still dying because we need more innovation in *delivering* even the basic things, including knowledge.

We need new ideas on how to prevent disease, how to give people who are sick access to treatment, and how to make life-saving tools both available and affordable. And even when all of these tasks are accomplished we will need to make sure people know how to use these tools.

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Everyone has a role to play. Developing countries must make the health of their mothers and newborns a top priority—progress depends on their leadership. Donors should continue investing in proven programs, because these investments save lives and are appreciated. We need the private sector to apply its expertise and resources. All of us can collaborate to ensure that we are connecting our efforts for maximum impact.

I look forward to spending time with you during the Summit as we all work together to come up with the big ideas, the innovative solutions that can save millions.

Much like those who aspire to climb the world's tallest mountain, we have our own extraordinary and demanding Summit challenge before us…

Connecting science, industry, and policy for a healthier world

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