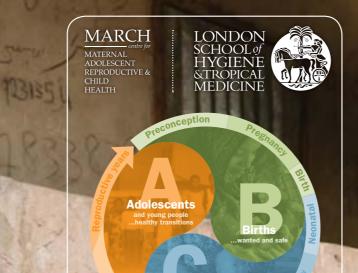
More than 150 public health and research experts working around the world on reproductive, maternal, newborn, child

MARCH Centre for Maternal, Adolescent, Reproductive & Child Health London School of Hygiene & Tropical Medicine Keppel Street, London WC1E 7HT Tel: +44 (0)20 7636 8636 Email: march@lshtm.ac.uk Web: http://march.lshtm.ac.uk Twitter: @MARCH\_LSHTM





MATERNAL ADOLESCENT REPRODUCTIVE & CHILD HEALTH





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## **Delivering on our promises for women and children worldwide**

At a time of global concern over emerging infectious and chronic diseases, it is important to remember that millions of women and children continue to die every year from conditions that are easily preventable and treatable.

Despite progress on many fronts, this is a major unfinished agenda from the UN Millennium Development Goals, so it is welcome that donors, including the UK Department for International Development, are now taking a strong lead on women and girls. This approach also makes economic sense. According to a recent Lancet Commission report, investing in women's and children's health, and particularly in family planning, care at birth, child and adolescent health, can give a nine-fold return, and reduce the burden on health systems.

Researchers at the London School of Hygiene & Tropical Medicine have long been active in women's and children's health, and in 2009 the School established the MARCH Centre to focus efforts in this area, with founding directors Professor Oona Campbell and Professor Pat Doyle, and now expanding under the leadership of Professor Joy Lawn. Today, the Centre includes more than 150 researchers working on critical issues of adolescence, births, and child health, spanning the full spectrum of research expertise in infectious and non-communicable diseases, mental health, evaluation and education. MARCH also provides a coordinated hub for knowledge translation, to improve policy and decision making, working with a range of government and charitable organisations in the UK and worldwide.

I hope you will take a few minutes to read this report, which highlights the approach of the MARCH Centre and some of its achievements to date. Please join us in supporting this vital work to deliver on the promises of the UN Millennium Development Goals for 2015 and beyond.

DDist

**Professor Peter Piot** Director and Professor of Global Health London School of Hygiene & Tropical Medicine

**9 million** deaths each year of women, babies and children twothirds around the time of birth. The largest mortality burden at the end of the MDG era.

## **About MARCH**

The Centre for Maternal, Adolescent, Reproductive, and Child Health (MARCH) is the central hub for women's and children's health within The London School of Hygiene & Tropical Medicine, with over 150 members creating synergies for inter-disciplinary research and leadership for change.

MARCH strengthens and promotes innovation, evaluation and evidence-based policy making by fostering communication and collaboration inside and outside the School and between researchers and policy makers, across a range of settings in over 100 countries and multiple disciplines including:

**Description:** observational epidemiology, high-quality national and global estimates and social science theory and analyses are the foundation for linking data to action.

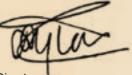
**Discovery:** understanding infections, genetic and epigenetic risks, and delineating risks for adverse outcomes especially during the two crucial windows of pregnancy and the first two years after birth, and adolescence.

**Development:** innovations in diagnostics, devices and strategies, for example to improve quality of care.

**Delivery:** a major strength is in intervention and health systems research, with economic and policy analysis.

Currently we have over 80 multidisciplinary research studies, coordinated by world leading scientists and covering themes along the continuum of care including:

- young people's health and behaviours
- family planning and reproductive health
- infertility
- maternal mortality and morbidity
- newborn health, preterm birth and stillbirths
- nutrition and child health, growth and development
- diagnosis, prevention and treatment for infectious disease in pregnancy and childhood.



Director: Professor Joy Lawn Joy.Lawn@lshtm.ac.uk Twitter: @joylawn

## Contents

Courtesy of Bill & Mali



## **Unfinished agenda and future delivery post-2015**

## **Progress in the MDG era**

The Millennium Development Goals (MDGs) era ends in 2015 with remarkable successes and vet an unfinished agenda for 9 million maternal, newborn and child deaths and stillbirths, linked to HIV, malaria and undernutrition, as well as unmet needs for family planning. Adolescent health was missing in the MDG metrics.

There is also a shifting global health agenda with transitions from death to disability, and newer risks such as obesity, NCDs, urbanisation, mental health disorders, injuries and climate change. Infectious diseases, both the old and the new, are not over yet. The research community needs to be ahead of these shifts since studies often take two to ten years to influence policy.

## Data for action to accelerate progress post-2015

With new and ambitious goals to end preventable maternal newborn and child mortality and to address universal reproductive health care, prioritising based on data is even more critical. MARCH members and academics in the School contribute to many of the epidemiological analyses, generating data and informing the future agenda.

#### Where in the world?

Africa is increasingly important, with 12% of the world's population yet over half of the burden for maternal and child deaths. If current trends continue with increasing births and slower progress for reducing deaths, then by 2030 Africa will account for almost two-thirds of child deaths worldwide.

Asia accounts for more than half of the world's population and is critical for any global progress.

By 2030 most of the world's births will be in middle income countries making more complex care feasible, and also shifting the centre of gravity for innovation to these regions.

Around the world, the School has a history of partnerships in over 100 countries (see pages 10 - 13).

#### When in the lifecycle?

Courtesy of Molly Miller-Petrie

Two thirds of the deaths for women, babies and children happen at birth - investing at this time gives a triple return on investment, or even quadruple if counting the lost development potential from neonatal complications and poor in-utero growth of babies, leading to stunting in children. Care at birth and family planning are two of the most cost-effective health strategies, also contributing to economic development.

MARCH focuses on a lifecycle approach, including the key time around birth.

#### Who?

A focus on girls is important throughout the lifecycle and especially when girls and women are disadvantaged. This may be by gender selective abortions, less preference for nutritional inputs than boys, lower careseeking, female genital mutilation (FGM), missing out on education, child marriage, or violence against women. MARCH includes members working on all these issues and also the important linkages for boys and men.

## **Delivering solutions through the lifecycle**

## **MARCH through the lifecycle** Our work is organised around three

priority points in the lifecycle:

**Adolescents** 

Preconception

and young people ...healthy transitions

Children .survive and thrive

# School age Preschool

Investing in women's and children's health can give a 9-fold return in economic gains, and lower health system costs. The most effective investment points are family planning, care at birth, child and adolescent health. Lancet Commission on Investing in Health

dolescents and voung people achieving healthy transitions

irths that are wanted, pregnancies that are safe, babies alive and thriving

**hildren** with a healthy start, optimal growth and development

leonatal

Z



Presnancy

## Adolescents and young people achieving healthy transitions

## What is the A theme about?

This theme focuses on the health of adolescents and young people. There are four main reasons why public health should focus on this group:

**Neglected group.** Young people aged 10-24 are often neglected in health interventions, despite both the importance of supporting young adults to realise their potential, and the key role of health and health behaviours in young adulthood in shaping health in later life.

**Demographic transition**. In most high and middle income countries there are more adolescents (10-19 years) than children (0-9 years). Low income countries are rapidly approaching a similar demographic balance, with more than one in four of the total population aged 10-19 owing to falling fertility rates and dramatic recent improvements in child survival. This provides a one-time potential economic dividend to countries whose populations are replete with young adults going through their most productive period of life. But to realise this potential, those young adults must be healthy, educated and employed.

Epidemiological transition. The burden from

infectious diseases is decreasing, especially

communicable health conditions with origins in

ill health, cardiovascular disease, diabetes and

Effective interventions. We have an increasing

range of effective interventions to prevent these

illnesses through taking action during childhood and

children and young people such as injuries, mental

in young children. On the other hand, non-

obesity have been increasing dramatically.

Courtesy of Neil Spicer

Adolescents

people... hea transition



## What does the A theme do?

Staff from across the School's three faculties are engaged in research and teaching to improve the health and wellbeing of young people, and to help them realise their potential. Work in the A theme ranges from descriptive quantitative and qualitative research on the burden of disease in this age range, to in-depth anthropological and sociological enquiries into social aspects of young people's health and transitions, to development, testing and evaluation of novel interventions.

Disciplines cover a wide spectrum across the social, behavioural, epidemiological and clinical sciences. Topic areas cover the full range of the key health issues of young people, including sexual and reproductive health, use of tobacco, alcohol and other psychoactive drugs, injuries, mental health, nutrition and exercise, and infectious diseases.

The A theme organises seminars and workshops related to the health of adolescents and young people (often jointly with the Child and Adolescent Health Centre in University College London) and creates opportunities for staff to develop multidisciplinary collaborations.

## Examples of research:

### (more examples on pages 10-13)

- A qualitative longitudinal study of young people's experiences of growing up with HIV in UK, Uganda, Zimbabwe and USA and how this affects transitions to adulthood.
- Epidemiological studies of individual, family, community and school-level factors influencing school dropout and school absenteeism in Malawi.

In the UK, 10-19 year olds outnumber 0-9 year olds. In Europe, mortality rates among young men aged 15-19 are higher than for 1-4 year-olds.

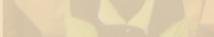
Lancet Adolescent series 2011

Worldwide the most common causes of death for adolescents are road traffic injuries, suicide, interpersonal violence, HIV and other infections.

- An epidemiological study in Malawi showed a link between earlier age at menarche and age at first sex, age at marriage, and herpes simplex type-2 infection.
- A trial in Bulawayo Zimbabwe of a single session, footballbased voluntary medical male circumcision promotion intervention (Make the Cut) showed that it increased the uptake of circumcision ten-fold over the 4.5 month follow-up period.

## **Examples of outputs:**

- A Theme members were involved in the recent Lancet Series on adolescent health, and are also co-leaders for the current Lancet Commission on Adolescent Health and Wellbeing.
- Jointly with WHO, the School runs an annual two-week short course of adolescent health in low and middle income countries, which has trained 70 mid-career professionals during its first 5 years. The course has also spawned annual regional courses for Africa run by collaborators in the Obafemi Awolowo University in Nigeria, and for Asia run by the Public Health Foundation of India.



adolescence

4

## billion adolescents L9 yrs) alive today: gest ever youth generation.

alth for the World's Adolescents

Birth

## By 2030 one in three births be in Africa but almost two-thirds of deaths will be African – unless we are now to address famil

100

34 countries are

**Millennium Development** 

need for family planning

9 of these countries are

in sub-Saharan Africa,

projected to meet the

**Goal to halve unmet** 

compared to 1990.

6 in Eastern Africa.

Of 26 countries with

>50% unmet need for

family planning all but

one are in sub-Saharan

and Western Africa.

Africa, mostly in Central

## Births that are wanted and safe

#### What is the B theme about?

Every year there are over 200 million pregnancies in the world, wanted and unwanted, that result in a healthy baby delivered by a healthy woman, or an adverse birth outcome that afflicts mother, child, or both.

In 2013, an estimated 289,000 women lost their lives in childbirth, 2.9 million babies died in the neonatal period and 2.6 million were stillbirths. One in every four couples in the developing world has been affected by infertility with global levels of primary and secondary infertility relatively unchanged between 1990 and 2010.

The 'Birth' theme covers issues related to preconception, family planning, pregnancy, care at birth and the immediate postnatal period. Topics covered by MARCH members include infertility, menstrual hygiene, induced abortion and miscarriage, contraceptive needs and unmet needs, obstetric complications, maternal mortality, prevention and treatment of infectious and chronic diseases during pregnancy, stillbirth, and neonatal morbidity and mortality, particularly preterm birth.

#### What does the B theme do?

The 'Birth' theme includes anthropologists, paediatricians, epidemiologists, lab scientists, economists, demographers, statisticians as well as several other disciplines.

MARCH members play a leading role in quantifying the burden of diseases as well as testing interventions or technologies designed to prevent and to treat complications of birth and deaths, in high- and low-resource countries. MARCH members also study how maternity, antenatal, postnatal and reproductive health services can be used as a platform to deliver services that prevent and control infections such as HIV, malaria, and other public health problems such as violence against women.

#### **Examples of research:** (more examples on pages 10-13)

A multi-country randomised controlled trial of tranexamic acid administered to women who have postpartum haemorrhage involving more than 15,000 women across 19 countries (Professor Ian Roberts, Haleema Shakur and colleagues).

## **Examples of outputs:**

Members of MARCH are involved in several highprofile, policy-relevant initiatives. For example The Lancet Every Newborn Series (2014) provided the basis for the Every Newborn action plan with post-2015 targets for reducing neonatal mortality and stillbirth rates. Others have played a lead role in the WHO report on violence against women (2013) and the Family Planning 2020 summit (2012) and the Nutrition for Growth Summit (2013).

We have hosted several events with global partners including, for example, Save the Children's State of the World's Mothers report (2013), a recent symposium on the effects of obesity on maternal and neonatal health, and the launch of The Lancet Midwifery Series (2014).

For every woman who dies in childbirth, around 20 more suffer injury, infection or disease approximately 10 million women each year, along with 5.5 million babies who die as stillbirths or neonatal deaths.

Development of simple diagnostic tools to be used in primary health care settings with particular attention to syphilis (Professors Rosanna Peeling, David Mabey and colleagues). Conducting clinical trials designed to prevent and treat malaria infection during pregnancy (Professors Brian Greenwood, Daniel Chandramohan and colleagues).

Three large evaluations of multi-country intervention projects of maternal and neonatal health interventions as well as family planning funded by the Bill and Melinda Gates Foundation (Professor Joanna Schellenberg), Markets Evaluation Team (Professor Oona Campbell), and EVA-PMDUP (Evaluation of Prevention of Maternal Mortality and Unwanted Pregnancy) funded by the UK's Department for International Development.

Work with the Royal College of Obstetricians and Gynaecologists examining variations in maternity care in the UK (Professor Jan van der Meulen and colleagues).



## **Children that survive and thrive**

Children Survive and thrive









## What is the C theme about?

During the MDG era deaths for children under five have been halved. Our focus is on ending preventable child deaths, and improving child development and nutrition.

Despite significant progress in reducing childhood mortality there are still more than 6.7 million deaths of children under five each year (1 child every 5 seconds), almost half occurring in the first month of life.

In 2013 preterm birth complications became the leading cause of child deaths at 1 million per year, followed by pneumonia. The causes with the largest reductions since 2000 were pneumonia, diarrhoea and measles, together accounting for almost half of the overall reduction. Those with the slowest progress (<3% per year) included preterm birth, congenital conditions, neonatal sepsis, injury.

Many of these deaths could be prevented if we reached every woman and every child with evidencebased interventions, particularly care of the newborn and prevention, diagnosis and treatment of infections. Evaluating how best to implement, overcoming systems barriers and promoting behaviour change, is critical. The School excels at this research as well as more upstream discovery and delivery research.

Worldwide, as more children survive, increasing attention is focused on healthy childhood: nutrition, growth, development and the prevention and management of injury and disability, maximising health in later life.

### What does the C theme do?

MARCH is uniquely positioned to address the priority challenges in child and newborn health. As one of the world's largest schools of public health, London School of Hygiene & Tropical Medicine researchers work across a range of disciplines: from molecular biologists discovering vaccine targets and biomarkers of infections, and immunologists unpacking the relationship between host immunity and infection, through to social scientists, epidemiologists, mathematical modellers and health economists, using qualitative and quantitative approaches to describing and understanding newborn and child health, and to design and evaluate interventions to address key challenges.

School researchers also lead multidisciplinary research in collaboration with other sectors, for example research on injury and violence prevention in schools, collaborative research on nutrition and agriculture, innovative work on water, sanitation and hygiene (WASH), and research on the prevalence and impact of disability in childhood.

#### Examples of research include: (more examples on pages 10-13)

#### A mother's diet and her child's DNA

Researchers from the School led by Branwen Hennig and Andrew Prentice have produced the first evidence in humans that a mother's diet before conception can lead to epigenetic modifications in her child's DNA, with the potential to permanently affect lifelong health. By utilising a unique 'experiment of nature' in rural Gambia, where there is marked seasonal variation in people's dietary patterns, they found that infants from dry season conceptions had lower rates of DNA methylation than those conceived during the wet season, altering how the genes will be interpreted with potentially lifelong impact.

SPRING (Sustainable Program Incorporating Nutrition and Games) is a five year programme in Haryana, India and Rawalpindi, Pakistan funded by the Wellcome Trust to develop and evaluate an innovative, integrated strategy to reduce child deaths and improve child growth and development. The intervention consists of a community worker home visit package from pregnancy through the first 2 years of life

At current rates of progress it will be over a century before a baby born in Africa has the same chance of surviving their first month as a baby born in Europe or USA.

## **1** in 4 of

children underfive are stunted, accounting for over one third of child deaths plus millions with lost development potential.

to promote optimum child care practices, including infant and young child feeding, mother-child interaction and play. The evaluation is through a cluster randomised controlled trials in each site.

- SuperAmma handwashing promotion programme in rural India represents leadership in behaviour change research that also engages the private sector. Through the use of a fictional character (SuperAmma) and emotional motivators the intervention was shown to increase handwashing with soap at key times by 31%.
- TRAC (Tracking Resistance to Artemisinin Collaboration) Resistance to artemisinins, the first-line treatment for falciparum malaria, is a major threat to children. TRAC is conducting research to track and limit the spread of resistance, including assessments of treatment seeking and antimalarial drug use and quality in Southeast Asia.



**nor funding for child health** 5 Countdown countries more than bled during the last decade, with ost all being for immunisation, HIV

## **MARCH around the world**

The Centre has partnerships in around 100 countries and is involved in more than 80 studies globally. Here are a few examples, in addition to those listed throughout this report

## Healthy schools- Reducing dengue and diarrheal diseases in primary schools in Columbia

Drinking water may contain the micro-organisms that cause diarrhoea, and also mosquitoes which transmit dengue need water to lay their eggs in. Funded by the Research Council of Norway and the Lazos de Calandaima Foundation, this study assesses two sets of interventions to reduce these diseases in children attending schools in rural Cundinamarca, Columbia. Schools are randomised to receive one or other of the sets of interventions, or neither, or both. We measure the effect in terms of school absences due to diarrhoea, and the occurrence of the dengue mosquitoes (Aedes aegypti).

Contact: Neal.Alexander@lshtm.ac.uk

#### User-fee free health for mothers and newborns Burkina Faso, Benin, Mali

FEMHealth (Fee exemption for maternal health care) is a study evaluating the effects on maternal and newborn outcomes if user fees are removed for emergency care in Mali, Morocco, Benin and Burkina Faso. In addition multidisciplinary research is being conducted on the impact of pregnancy on women's economic activity in Burkina Faso, investigating how investments in reproductive health might contribute to reducing poverty and fostering economic development and equity. The project is coordinated by Aberdeen Univ. The LSHTM team is led by Veronique Filippi and Carine Ronsmans and is funded by the EU.

Contact: Veronique.Filippi@Ishtm.ac.uk

#### Maternal healthcare markets Evaluation Team

The School's Maternal healthcare markets Evaluation Team (MET) is seeking to understand the role of the private sector in providing maternal health care as part of its evaluation of the Merck, Sharpe and Dome (MSD) for Mothers initiative. Projects being evaluated include social franchising for maternal health in India and Uganda and private operated supply chains for family planning in Senegal. Led by Caroline Lynch and Catherine Goodman, the team are also investigating where women seek care worldwide through analysis of demographic health surveys and examining the nature of competition where the private sector is providing maternal care. MSD for Mothers is a 10-year, US \$500 million initiative to reduce maternal mortality around the world.



## What young people think about sex and what they do, UK

The sixteen18 project examines a broad range of practices, including oral, vaginal and anal sex. Based on interviews with 130 young men and women aged 16-18 in England, the study aims to understand where, when and with whom young people would expect different practices to occur, and what those practices mean to them. The study, led by Cicely Marston and funded by the ESRC has shown different ways the social environment around young people can influence practices, including for instance, normalising coercion of women into anal sex.

Contact: Cicely.Marston@lshtm.ac.uk

#### Healthy transitions to adulthood, Kenya, Ghana

This study is designing a package of adolescent health services, and exploring how best to deliver this care to young people. David Ross and Aoife Doyle are working with Margaret Gyapong and colleagues at Dodowa Health Research Unit of Ghana Health Service, the INDEPTH Secretariat in Accra, and the Wellcome Trust-KEMRI Unit in Kenya with Hewlett Foundation funding.

Contact: David.Ross@lshtm.ac.uk Twitter @LSHTM\_MARCH

#### Soapbox: clean birth practices in reality

Given the opportunity of increasing facility births, the Soapbox Collaborative aims to research and improve clean, safe delivery care to reduce maternal and newborn infections. In Zanzibar, in collaboration with the Ministry of Health and WaterAid, funded by SHARE, we are undertaking an innovative assessment of water sanitation and hygiene (WASH) in all facilities. In The Gambia there is a mixed-methods feasibility study of Clean Birth Kits supply in health centres.

Contact: info@soapboxcollaborative.org

#### Reducing child mortality through mass media Burkina Faso

The first robust trial of the impact of mass media on health outcomes in a low-income setting is evaluating whether 60- second health messages and long format programmes broadcast on local radio can save lives. The trial is designed to detect a 20% reduction in child mortality at the end of the radio campaign. Funded by the Wellcome Trust and Planet Wheeler Foundation, Simon Cousens and Sophie Sarrassat from the School are working in partnership with Development Media International, Centre Muraz, and the Ministry of Health of Burkina Faso.

Contact: <u>Simon.Cousens@lshtm.ac.uk</u>

#### HIV, nutrition and childhood infections Zambia

Children maternally exposed to HIV in utero have reduced immunity to other viruses, yet infection outcomes can be reduced by breastfeeding and vitamin/ mineral supplements. However, some infections as HIV and human cytomegalovirus, HCMV, can be transmitted in breastmilk. Suzanne Filteau and Ursula Gompels with Lackson Kasonka, Mwaka Monze and colleagues have been studying effects of these interventions on poliovirus antibodies and effects of HCMV in Zambian children. The team is now testing lipid based dietary supplements for HIV patients in the Nutritional Support for Africans Starting Antiretroviral Therapy (NUSTART) trial and following breastmilk infections.

Contact: <u>Suzanne.Filteau@lshtm.ac.uk</u> and <u>Ursula.Gompels@lshtm.ac.uk</u>

#### Health systems and financing RESYST, India, Thailand and Vietnam

Resilient and Responsive Health Systems (RESYST) is an international research consortium which aims to enhance the resilience and responsiveness of health systems to promote health equity. Led by Kara Hanson, and funded by UKAID, RESYST is working with IHPP THAILAND, the Indian Institute of Technology and the Health Strategy and Policy Institute, Vietnam. The research focuses on the three critical components of health systems: financing, workforce and governance including approaches. Examples of focus include results based financing and raising and using tax revenues for health services.

Contact: <u>Kara.Hanson@lshtm.ac.uk</u> Twitter <u>@RESYSTresearch</u>

## INSIST, community-based interventions for newborn survival, Tanzania

Maternal and newborn health is an urgent priority in Africa yet half of births are at home. Joanna Schellenberg and colleagues are working with Fatuma Manzi at Ifakara Health Institute on Improving Newborn Survival in Southern Tanzania (INSIST), a communitybased trial funded by the Gates Foundation though Saving Newborn Lives, Save the Children. A network of over 800 trained local female volunteers visit women and families before and after birth to promote healthy practices including clean birth, breastfeeding and extra care for small babies.

Contact: Joanna.Schellenberg@lshtm.ac.uk

## **MARCH** around the world

Examples of multi-country projects and consortia



## IDEAS: Evidence to improve maternal and newborn health

The IDEAS project uses measurement and evaluation to understand which health innovations and programmes deliver the greatest impact on maternal and newborn survival at scale, as well as why and how they work. Working in Ethiopia, North-Eastern Nigeria and the state of Uttar Pradesh in India, the multidisciplinary team, led by Professor Joanna Schellenberg, aims to improve the health and survival of mothers and babies through generating evidence to inform policy and practice. The project also hosts the IDEAS Technical Resource Centre which strengthens the measurement, learning and evaluation capacity of colleagues from collaborating projects, promotes collaboration, and stimulates exchange of expertise. IDEAS is funded by the Bill & Melinda Gates Foundation.

Contact: <u>ideas@lshtm.ac.uk</u> Website: <u>ideas.lshtm.ac.uk</u> Twitter: <u>@LSHTM\_IDEAS</u>

#### MenAfriCar (African Meningococcal Carriage Consortium)

This multi-country research is coordinated by the School's Professor Brian Greenwood, linking with many African institutions and global experts with funding by The Wellcome Trust and The Bill & Melinda Gates Foundation. The study is examining how meningococcal meningitis spreads across the "meningitis belt" in sub-Saharan Africa, and documenting the impact of a new meningitis vaccine. The vaccine was introduced in Burkina Faso, Mali and Niger in 2010. In Chad almost 2 million doses were given and recently shown to be highly effective at preventing invasive meningococcal disease and carriage.

Contact: Brian.Greenwood@lshtm.ac.uk Website: www.menafricar.org



## **ACT for malaria treatment**

Artemisinin-based combination therapy (ACT) is the current gold standard of treatment for Plasmodium falciparum malaria, a major cause of childhood illness and death. The ACT Consortium aims to improve access to and targeting of ACT drugs, as well as to assess their quality and safety through a range of interdisciplinary approaches including large cluster randomized control trials, qualitative and economic studies. Funded by the Bill & Melinda Gates Foundation, the Consortium is a global research partnership involving over 40 co-investigators from Africa, Asia, Europe and the US working on 25 projects across 10 countries.

Contact: <u>David.Schellenberg@lshtm.ac.uk</u> Website:<u>www.actconsortium.org</u>

## ALPHA network: the power of shared data, East and Southern Africa

ALPHA network: the power of shared data, East and Southern Africa. The network for Analysis of Longitudinal Population based HIV data in Africa (ALPHA) links 10 existing community-based HIV cohort studies, to harmonise data and better inform intervention design, monitoring and epidemiological forecasting for HIV. Using their pooled data set, ALPHA published the first empirical estimates of HIV contribution to pregnancy-related mortality in sub-Saharan Africa. With funding from the Wellcome Trust, and the Bill & Melinda Gates Foundation, ALPHA is co-ordinated by Basia Zaba and Jim Todd from the School, and works closely with partners in Kenya, Malawi, South Africa, Tanzania, Uganda and Zimbabwe.

Contact: Basia.Zaba@lshtm.ac.uk





## E4A to save mothers and newborns Africa regional

Evidence for Action (E4A) a five year programme to improve maternal and newborn survival in six sub-Saharan countries (Ethiopia, Ghana, Malawi, Nigeria, Sierra Leone and Tanzania) through better use of information, evidencebased advocacy, and effective accountability. The consortium of 6 partners (Options, The London School for Hygiene & Tropical Medicine, University of Aberdeen, UCL, University of Southampton and Advocacy International) is funded by the UKAID.

Contact: Carinne.Ronsmans@lshtm.ac.uk Twitter: @mamaye

## **Leadership for the next generation**



Our vision is to identify the next generation of leaders for women's and children's health and help to skill them by maximising collaborations inside and outside the School.

#### Leadership

As well as formal qualifications in public health, MARCH is building on long-term partnerships with academic and research institutions and networks, particularly in Africa, to strategically identify and strengthen leaders and centres of excellence around the MARCH themes of A, B and C.

Several of our staff contribute to leadership development whilst based overseas. Recent examples include Professor Carine Ronsmans seconded to Sichuan University (China) from November 2014, where she is conducting collaborative research and supervise postgraduate students.

### Study at the School

The School has nearly 4000 postgraduate students and provides a stimulating environment, with state-of-the-art facilities, in which to carry out research training. MARCH contributes to teaching at the School through short courses, MScs and PhDs. Students learn about the burden, assessing efficacy of new interventions, and analysing policy, costs and implementation strategies for integrating interventions into large scale programmes. Working with MARCH members based around the world, the research degree programme provides opportunities for advanced study leading to the degrees of DrPH (Doctor of Public Health), MPhil (Master of Philosophy) and PhD (Doctor of Philosophy).

As part of the School's Master's programmes, MARCH members deliver world class courses on Reproductive health (e.g. Foundations in Reproductive Health and Family Planning Programmes), Maternal and Newborn health (e.g. Current Issues in Safe Motherhood and

## **MARCH** team

| Director | Professor Joy La |
|----------|------------------|
| Deputy   | Dr Tanya Marcha  |



Dr Tanva Marchant

## **Centre Leadership Team:**

| A (Adolescents) | Professor David Ross      |
|-----------------|---------------------------|
|                 | Dr Cicely Marston         |
| B (Births)      | Dr Véronique Filippi      |
|                 | Mr Matthew Chico          |
| C (Children)    | Professor Andrew Prentice |
|                 | Dr Shunmay Yeung          |

Experts drawn from School faculties representing a continuum of research in women's and children's health.



Perinatal Health), and Child Health (e.g. mother and child nutrition, epidemiology and control of malaria). The joint LSHTM/World Health Organization annual short course on Adolescent Health in Low and Middle Income Countries, launched in 2010, addresses health needs of the largest ever cohort of adolescents.

I feel proud to be a London School of Hygiene & **Tropical Medicine** alumnus. The focus on building skills of health professionals throughout the world has been achieved in many ways. Just look at the number of school alumni working in ministries of health in developed and developing countries, international organisations and NGOs.

Dr Elizabeth Mason (MSc Community Medicine, **1984)** retired Director, **Department of Child and** Adolescent Health, World Health Organization.



Courtesy of Anna Kagstron



We cannot rest until 1 problems (for women an children) are solved, and we cannot solve these problems alone Hillary Clinton, June 2014 at the Partner's Forum

Courtesy of OmPrasad Gautan

## **Delivering on our future**

## **Delivery priorities**

In the short term the most gains will come from immediate implementation of high impact care, with innovation and implementation research to increase coverage and close equity and quality gaps. This focus will be especially important for the 30 or so countries that need to more than double progress to reach 2030 targets for ending preventable maternal, newborn and child deaths.

However, it is also crucial to invest now in discovery science, ensuring new solutions whether vaccines, newer antimicrobials, and other drugs and devices, or innovations in service delivery and behaviour change. It is particularly important to link women's and children's health with new agendas – NCDs mental health and intersectoral issues such as Water Sanitation and Hygiene (WASH), education, and economic growth.

There are major burdens where solutions are lacking notably preterm birth, stunting, and outcomes for HIV exposed but non infected infants where the School has world leading scientists. Inter-generational impact and epigenetics hold promise for breakthroughs, with potentially more major impact in low and middle income countries.

> The world community must unite in a shared vision of healthy women and children at the heart of the Post-2015 Sustainable Development Agenda. Erna Solberg, Prime Minister of Norway

The MARCH Centre has strategic collaborations with other Centres in the School such as the Centre for Evaluation. and those for Malaria, Vaccines, Diagnostics, Mental Health, Disability and Non Communicable Diseases. We also have many alliances with global and regional partners, particularly in the United Nations agencies such as WHO, UNICEF and UNFPA.

In the post-2015 world where health fits in the wider context of sustainable development, greater progress and bigger breakthroughs occur when "unlike minds" collaborate - from around the globe, from different disciplines and focusing on different parts of the lifecycle.

MARCH and the School can bring such breakthroughs more and more - in discovery science, innovation for health system delivery, and a deliberate and strategic approach to leadership development.

Please join with us to improve health for women and children around the world.

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