CDC Global Health

REVISITING SUCCESSFUL INTEGRATION OF PUBLIC HEALTH INTERVENTIONS

E-Brief
4TH QUARTER 2009
3-YEAR ANNIVERSARY EDITION

Photo credit: CDC-Kenya

WELCOME to the fourth quarter 2009 Global Health E-Brief, designed to inform readers about key global health activities at the Centers for Disease Control and Prevention (CDC). The end of 2009 marks the completion of the third year of the Global Health E-brief. To celebrate this milestone, this quarter's e-brief showcases some of our past articles. In looking forward to the Obama Administration's commitment to a holistic approach to global health, this issue revisits previously published articles highlighting CDC programs that have pioneered integrations of public health interventions, and cross-program and -agency collaborations. Evidence-based integration of activities across disease-specific programs has been critical in helping CDC reach more people in need and use scarce resources efficiently.

In This Issue

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
Center for Global Health

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CDC: Making Integration Work to Improve Health Impact

Program integration at CDC has led programs to work together in new and non-traditional ways to improve health outcomes, maximize efficiency, strengthen health systems and ownership in host countries, and tackle diseases that historically have not received large investments – such as maternal and child health, diarrheal diseases, and chronic disease. In addition, CDC's technical expertise in operations research and monitoring and evaluation are critical to ensuring that integration of interventions is evidence based.

Because HIV/AIDS and malaria programs have extensive programmatic activities in the field, many CDC programs have sought to collaborate in those areas. For example, many of the groups featured in this e-brief have collaborated with groups serving HIV-positive or vulnerable populations. However, integration among CDC programs is not limited to HIV and malaria. CDC programs are integrating on multiple levels including combining health services during routine childhood immunizations, providing food supplements at antenatal clinics, and providing flu vaccinations to people with chronic diseases who are at greater risk of complications if they fall ill. These programs have seen the value of integration and are continually looking for innovative ways to build on their respective successes.

Integration of activities can also lessen the burden on health systems stressed from populations that have not yet addressed their infectious disease issues and are seeing the rise of chronic disease. Integration of infectious disease and chronic disease programs has shown that Ministries of Health can leverage limited resources to reach more people and affect multiple health outcomes at once.

In short, integration has fulfilled many unmet health needs through the expansion of delivery of services that have the greatest health impact. Evidence-based integration of programs across agencies holds great promise to build on the tremendous reach and successes of U.S. health programs to achieve lasting and durable results. CDC looks forward to the challenge of expanding the evidence base for integration of public health programs that will expand access and improve efficiency.

Promoting Early Childhood Development for Orphans and Vulnerable Children (3rd Qtr 2007)

Photo credit: Camille Smith, CDC

By 2010, 15 million children are predicted to have been orphaned by AIDS alone in sub-Saharan Africa. AIDS, conflict, natural disasters, endemic diseases such as malaria and tuberculosis, and rising poverty are claiming the lives of millions of productive adults in Africa, leaving many more children orphaned and vulnerable. Research shows that as many as 200 million children worldwide fail to reach their full potential because of malnutrition, micronutrient deficiency, and lack of stimulation during early childhood. These findings are especially important for Africa, where 15 percent of all orphans, or about 6.5 million children, are younger than 5. Integrated interventions that address health and education as well as child rights, economic empowerment of families and improved community capacities are needed.

Responding to this critical need, CDC is collaborating with CARE International in a program called "The 5x5 Model". This model was designed to deliver early childhood development interventions through community based child care centers catering to the 2-8 year old age group in Kenya, Uganda, Rwanda, and Zambia. The model represents an innovative, community-centered approach to Early Childhood Development programming. Key collaborators are Emory University, UNICEF, Hope for Africa Children's Initiative, and the Bernard Van Leer Foundation. Five levels of intervention are addressed including the individual child, the caregiver or family, the child care settings, the community, and the wider policy environment. The 5x5 model has developed interventions for five critical areas: food and nutrition,

child development, economic strengthening, health, and child protection.

A great example of this work in action is a project in Uganda. In Busia, Uganda many young, poor women are brought to Uganda from other countries to be sex workers, where they find themselves pregnant, alone, and far from home. This CDC/CARE collaboration established a comprehensive Early Childhood Development (ECD) center providing the children of these mothers a stimulating and healthy child care environment and nutritious daily meals. The project informs the community about child nutrition, parenting skills, and child rights through radio programming. A local Catholic health center provides prevention and medical treatment services. The ECD is linked with a government child welfare officer to address issues related to child rights violations.

The ECD centers deliver health services to children in a concentrated, cost-effective manner. Partnerships have been formed with food programs and health centers so that children also receive immunizations, deworming, growth monitoring, vitamin supplementation, and treatment of minor respiratory infections and ringworm. Partnerships are being established with the Ministries of Health and Education to strengthen relationships between the ECD centers and schools and community programs. Pilot projects in challenging and resource-constrained environments have shown that the approach can be adapted within a variety of settings.

An Update:

Promoting Early Childhood Development for Orphans and Vulnerable Children

The Early Childhood Development Center (ECD) in Busia is still being well run by the St. Jude Health Center. Today, the project supports the mothers whose children are attending the center to start income generating activities. The mothers have since opened successful businesses. The probation office, where the child welfare officer works, has been included as part of the committee that oversees the running of the center. The mothers and children are thriving. The Center is supporting their health and developmental needs as well as protecting their rights.

Research conducted at other project sites throughout sub-Saharan Africa has uncovered demand for solutions and a more complete package of services that addresses the health and developmental needs of young children. Creating a new program infrastructure is not sustainable, thus ECD interventions are being integrated into already existing platforms e.g. PMTCT, Maternal Child Health, Home based care, Virus Testing and Counseling, and Vaccination Programs.

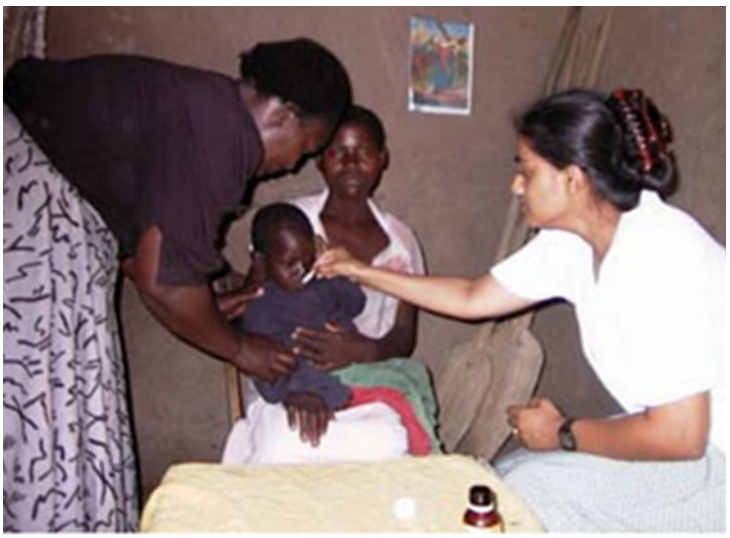
CDC, CARE and Save the Children are co-facilitating a five-year process to formulate an Essential Package of critical services built off the design of the "5x5Model" for young orphans and vulnerable children (OVC) which utilizes qualitative, field based research, existing tools, standards and guides already used in OVC programs, and input from experts in the field of HIV/AIDS and early childhood. The package will propose frameworks for action and tools to improve child and caregiver outcomes. The goal is to empower volunteers, home based care providers and other paraprofessionals to offer a comprehensive range of services to enable children to reach their developmental potential.

After an extensive literature review and field consultation, the project will develop a strategy for integrating quality standards to guide program design, and a tool kit to guide implementers to existing services. In addition, the center will develop and validate a research protocol in communities with documented high and low HIV prevalence.

CDC Research Leads to New Tools to Fight Malaria and Anemia in Pregnant Women (2nd Qtr 2008)

Dr. Meghna Desai, one of CDC's lead malaria researchers, was treating a Kenyan child for anemia when she noticed the child's mother was very pale and looked pregnant. Dr. Desai knew if the mother was pregnant and had anemia (a common consequence of malaria), her pregnancy could be threatened. The experience sparked her interest in studying the effects of malaria during pregnancy, in the hopes of making health system changes that would help mothers like this one – and ultimately ensure that their babies were born healthy.

Each year approximately 50 million women living in regions with high rates of malaria – 25 million of whom are in Africa – become pregnant and are at risk from malaria and its particularly harmful effects during pregnancy. During pregnancy, women lose some of the immunity to malaria they have acquired from living in high-risk areas. If they acquire malaria and develop anemia, their children are more likely to be born small – and are more likely to be sick or die. In Africa, low birth weight associated with malaria in pregnancy is estimated to contribute to 100,000 infant deaths each year.



CDC's Dr. Meghna Desai Working in Kenya Photo credit: Meghna Desai, CDC

CDC malaria research plays a critical role in ensuring that the tools we have to combat malaria in all those affected by the disease can be implemented with greatest impact both by researching the most effective way to implement an intervention, and by monitoring and evaluating its impact. Findings from studies conducted by CDC experts like Dr. Desai are the foundation for the way malaria in pregnant women is treated and prevented today and are reflected in the World Health Organization's guidelines and recommendations for preventing and controlling malaria in pregnant women, especially in countries in sub-Saharan Africa with high malaria transmission. Key CDC research findings that are preventing illness and saving lives are these:

- Intermittent preventive treatment of malaria during pregnancy (IPTp)—delivery of the right dose of effective antimalarial drugs as part of routine pre-natal care—reduced the risk that malaria-infected pregnant women would have babies with low birth weight and the associated high risks for infant death;
- Insecticide-treated nets (ITNs) help reduce malaria infections and associated ill effects in pregnancy. When pregnant women in a study area in Kenya slept under ITNs, severe malarial anemia was reduced by 47% and the delivery of low-birth-weight infants decreased by 28%; and
- To benefit from treatment, pregnant women who are HIV-positive need more doses of IPTp with the drug sulfadoxine-pyrimethamine (SP) or, in some cases, a different drug.

CDC's research on the usefulness of insecticide-treated nets and IPTp strongly influenced the strategies being implemented in the President's Malaria Initiative (PMI), a $1.2 billion 5-year plan to reduce deaths due to malaria by 50 percent in 15 African countries). PMI provides IPTp, to pregnant women and their babies. To date, PMI has procured SP for IPTp for more than 1.3 million women. Additionally more than 5,000 health care workers have been trained to administer IPTp. In addition to IPTp, African countries are adopting policies on the use of insecticide-treated bed nets and the effective treatment of malaria illness with antimalarial drugs to mitigate malaria's ill effects in pregnant women.

CDC, with Dr. Desai as principal investigator, is currently helping to plan a study in Kenya on another drug, mefloquine, for use in IPTp among HIV-infected pregnant women. The study is important for two reasons: SP cannot be given to women who are taking cotrimoxazole; the drug HIV-positive pregnant women receive to prevent complications from their HIV; and the rates of HIV and malaria in many sub-Saharan African countries are very high and many individuals have both infections. This project and other CDC research will provide additional information about how to prevent malaria in HIV-positive pregnant women.

Zambia's Cervical Cancer Screening Program (4th Qtr 2007)

One of the key lessons learned from the United States' efforts to improve global health is that many of the countries we assist provide opportunities for innovative approaches to the growing problem of chronic disease in less economically developed settings. CDC's ability to offer innovative public health solutions in challenging global settings was utilized recently in Zambia, where life expectancy has dropped from 50 years of age in 1970 to 38 years of age in 2007, and two thirds of the population lives on less than $1 per day. In May, a team from CDC's National Center for Chronic Disease Prevention and Health Promotion visited Zambia's Center for Infectious Disease Research's (CIDRZ) Cervical Cancer See and Treat program in Lusaka.

CDC has begun to work hand in hand with this program, which is partially funded by CDC through the President's Emergency Plan for AIDS Relief (PEPFAR). CDC plans to further See and Treat's impact through technical and financial support to reduce the high incidence and mortality rates of cervical cancer in Zambia. CIDRZ initiated a cervical cancer prevention intervention that targets both HIV-positive and non-HIV infected female patients. Though HIV positive women live longer thanks to improved access to care and treatment programs targeting HIV/AIDS, they continue to develop and die from serious chronic diseases - such as cervical cancer. Cervical Cancer rates have declined during the past decades for most of the developed world, but are increasing or unchanged, for women in Eastern Africa, Zambia and Swaziland. In these countries, the incidence of cervical cancer is up to ten times higher than in other parts of the developing world.

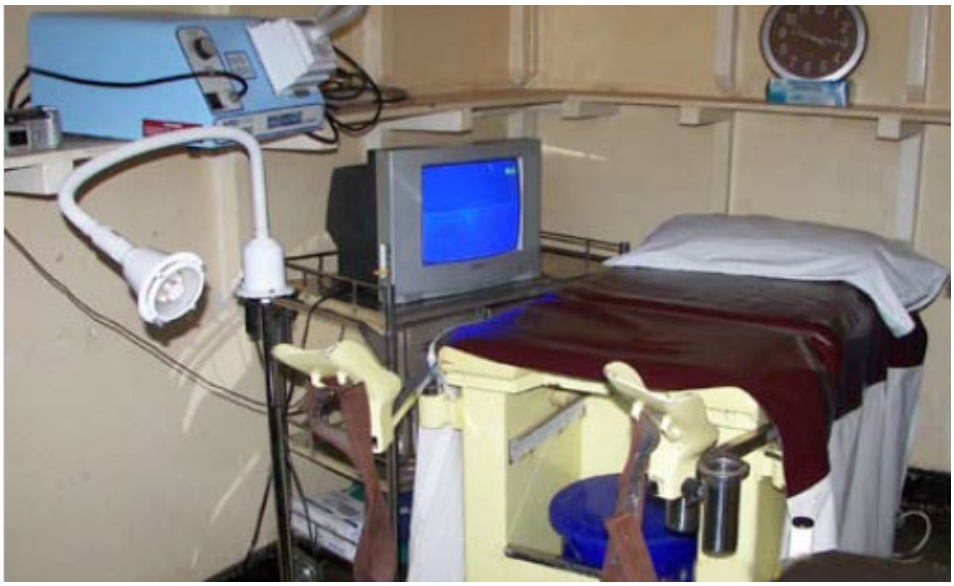


Photo credit: Mary Hall, CDC

The See and Treat Program is an outstanding example of CDC's commitment to comprehensive, crosscutting global health issues and strategies, particularly the rising incidence of non-communicable disease in less economically developed countries. Based at the anti-retroviral clinics in Lusaka, Zambia, and spearheaded by Dr. Groesbeck Parham from the University of Alabama-Birmingham School of Medicine, and Dr. Mulindi Mwanahamuntu from the University Teaching Hospital in Zambia, the See and Treat program is a low-cost, innovative approach to detecting cervical cancer. The protocol begins with visual inspections by trained nurses. If abnormal cells are found, the nurse provides basic treatment and digital images, or makes a referral for further histologic evaluation by Drs. Parham or Mwanahamuntu.

The See and Treat program, is the first free, public health-based cervical cancer prevention program in Zambia. Since its beginning in November 2005, more than 10,000 women have been screened, 13 nurse-midwives and 3 gynecologists have been trained, nine cervical cancer prevention clinics have been developed, and one cervical cancer peer educator for each clinic has been trained and hired.

CDC's collaboration with CIDRZ will enhance the See and Treat clinical program in Zambia through the development of a Management Information System to track the disease burden; human papillomavirus (HPV) vaccine research; digital pathology/consultation; and HPV laboratory capacity and evaluation. Plans are also underway to develop and implement an arrangement to sustain this activity in Zambia through a student and professional exchange program with U.S. medical and graduate schools, a Health Promotion/Health Education program, cervical cancer nurse certification, peer educator training, and a micro-credit lending program.

Through its careful approach to addressing one chronic disease – cervical cancer – the See and Treat screening program is a model for other countries. It creates needed community infrastructure for chronic disease prevention and enhances opportunities for on-going professional development. This program leverages CDC's technical and scientific assets and shows that partnership is essential to solving global public health disease problems, particularly the rising burden of chronic disease in developing countries.

An Update:

Online Training Program Designed to Build Capacity of Zambia's Healthcare Providers

Since 2005, trained nurses and physicians with the Center for Infectious Disease Research in Zambia (CIDRZ) Cervical Cancer Prevention Program (CCPP) have successfully screened and treated more than 27,000 HIV-positive and non-HIV-infected women in Zambia. The nurses are primary health care providers and routinely perform visual inspection and acetic acid (VIA) digital cervicography. Cryotherapy is provided during the same visit after visual examination, ensuring appropriate follow-up.

To build capacity among the Cervical Cancer Prevention Program healthcare professionals, the CDC Division of Adult and Community Health provided resources for a Professional Development and Exchange Program (PDEP). A CDC epidemiology fellow in Zambia developed an online training program for healthcare providers. The PDEP includes several competency-based learning modules: *epidemiology and natural history of cervical cancer, cervical cancer screening method--Cytology, VIA, Digital cervicography, HPV DNA testing, HPV vaccine, and how to educate the community about cervical cancer screening*. Post-training assessments will be incorporated into each training module to ensure comprehension and retention of the information.

Long-term objectives of this online program are to facilitate more rapid, comprehensive, and efficient training of the CCPP nurses and doctors and to provide easy access to the CCPP Zambia training materials among other countries in the region.

Photo credit: Steven Stewart, CDC

Routine Immunization Services: A Platform to Strengthen Systems (4th Qtr 2008)

Few can argue that, on many indicators, the health of people in the developing world remains unacceptably poor. The primary reason is that existing health systems cannot ensure that health services are widely available and accessible across society. An exception has been routine immunizations for children. Public health professionals in immunization programs have long recognized that investing in health systems infrastructure is vital to achieve and sustain high immunization coverage, which protects populations from vaccine-preventable diseases. By building on the platform of immunizations to increase coverage of other essential health services, there is a tremendous opportunity to improve health systems overall.

Because immunization services are a proven entry point into the health system, other health interventions, with sufficient additional human and logistical resources, can be integrated with immunization service delivery. This leveraging of health interventions includes the following benefits:

- Health services match communities' needs and expectations,
- The number of people receiving services increases, maximizing the impact of resources invested,
- Services reach those most in need, and
- People's health improves because multiple needs are addressed.

For example, routine immunization sessions for young children present opportunities to provide advice on growth monitoring and nutrition, deliver Vitamin A supplements and mosquito nets to prevent malaria and other vector-borne diseases, and to assess and treat other medical conditions from which children may be suffering. Mothers who bring their children to immunization sessions can also receive reproductive and sexual health care and counseling. To improve on synergies realized to date, CDC is working with global partners to evaluate and identify the best ways in which additional health services can be effectively integrated with routine immunizations. The information will provide evidence to determine the optimal types of services to integrate, and at what point combining too many services fails to produce the desired health benefits.

In Malawi, CDC supported a pilot study to determine the feasibility of distributing insecticide-treated mosquito nets through routine immunization services. Bed nets typically cost up to $5 in this country, which has an estimated average annual income of $160. In two districts, free nets were given to children when they had completed their routine vaccinations by 12 months of age. For comparison, another district offered the immunizations without the nets. In the two districts receiving the integrated services, the percentage of children aged 12-23 months who were both fully vaccinated by 12 months and who had slept under a net the night before their mothers were interviewed was four times higher (increasing from 10-14% to 40-44%). Now, the Malawian Ministry of Health has begun to distribute free nets at ante-natal clinics and under-5 clinics nationwide.

CDC supported similar research on the integration of vaccine services with bed net distribution in Indonesia. A mother who received a net there said, "I am very happy that they gave me a free net. I would still have gotten my child vaccinated, but with the net I can protect my baby from malaria." A vaccination worker in Indonesia observed, "More children are coming to [the vaccination session] because the mothers know that if they complete their immunizations, they will get a net, so they come more regularly."

Other studies in the works include evaluating the integration of routine immunizations with safe water solution and hygiene products, as well as with family planning services. A comprehensive multi-country study will explore community and health-worker preferences about integrated services and estimate the timeframes and personnel required. Findings from all of these studies will provide insight and evidence on how integrated services can best be implemented in a variety of settings around the world. As countries strive to reduce unnecessary morbidity and mortality, the synergy created by integrating other health services with routine immunization programs can help to strengthen health system capacity, optimize use of local resources, maximize the efficiency of public health services—and ultimately save lives.

Evidence-based Integration: Safe Water and HIV Interventions (2nd Qtr 2007)

Jemima is a woman living with HIV in rural western Kenya, where rates of HIV are among the highest in the world. Nearly one in five adults is infected, and nearly 20% of children are orphaned. Jemima became a leader in her community by founding a group that provides emotional support and small loans to HIV-affected families in her home area. However, Jemima's own HIV disease continued to progress. She grew ill with diarrhea and wasted to a low of 77 lbs. A local volunteer found Jemima at home, bedridden, weak, and with oral thrush and skin infections.

The volunteer brought Jemima, her husband, and her sick grandchild to a U.S. Government-supported clinic, where staff provided the family a "Basic Care Package" to treat their symptoms and to prevent further illness. Developed in 2002, the 'Basic Care Package' is a bundle of evidence-based, high-impact, and low-cost health interventions developed by CDC Global AIDS Program's researchers in Uganda (in partnership with other CDC scientists) to prevent the most debilitating opportunistic infections among people living with HIV. With suppressed immune systems, Jemima and others living with HIV are more vulnerable to opportunistic illnesses, such as those transmitted through contaminated water. These illnesses can be costly and difficult to treat in settings with limited resources.

Photo credit: Rob Quick, CDC

Simple interventions such as the provision of nutritional supplements, low-cost antibiotics and clean water can have significant impact in the quality of life for those living with HIV/AIDS.

The elements of the Basic Care Package are designed to be simple to implement, so they can be delivered at primary health care centers. The essential elements—delivered together or separately—include cotrimoxazole (a powerful antibiotic), insecticide- treated bed nets to prevent malaria, screening and management of STDs, Prevention of Mother to Child Transmission (PMTCT) services, and counseling (e.g., condom use and family planning), and point-of-use safe water systems. The safe water system of the Basic Care Package includes education as well as:

- Use of household-based water treatment methods and water storage in containers that limit hand contact (e.g., plastic containers with spigots and dilute chlorine tablets)
- Proper disposal of human or animal feces
- Promotion of hand washing with soap after handling human or animal feces, before food preparation, and before eating, along with the provision of soap

Each intervention has been shown to improve health outcomes while remaining cost effective. Alone, the Safe Water System has been documented to reduce diarrhea among persons with HIV by 25-35%, at a cost to $10 per family per year. Combining the safe water system with cotrimoxazole reduces diarrhea episodes among people living with HIV by 77% and days of work or school lost to diarrhea by 47%, at a cost of roughly $15 per family, per year. Because of these successes, the integrated Basic Care Package is now being scaled up under the U.S. President's Emergency Plan for AIDS Relief.

After receiving her Basic Care Package, Jemima's condition improved dramatically, and she regained a healthy weight of 132 lbs. She now promotes health interventions in her community and sells health products to help support the eight sick and orphaned children she has adopted. Jemima is a fervent advocate for the U.S. government-supported clinic and has referred more than 100 HIV-infected men, women, and children to receive care at the facility.

An Update:

Distribution of Basic Care Package Expands in and beyond Africa

As of December 2009, five countries have expanded distribution of Basic Care Package programs: Uganda, Kenya, Nigeria, Ivory Coast, and Ethiopia. Four additional countries are integrating household drinking water treatment products with HIV services: Viet Nam, Rwanda, Zambia, and Malawi. In 2010, a national basic care package program will be launched in Mozambique. Eight years after its development, hundreds of thousands of people living with HIV are benefitting from the program.

Newsbytes

CDC Part of First Response to Haitian Earthquake

CDC staff members on duty in Haiti were among the first to respond following the devastating earthquake on January 12, 2010 providing first aid at the U.S. Embassy in Port-au-Prince and supporting USG and Haitian colleagues affected by the 7.0 magnitude temblor.

CDC experts were also part of the first HHS Disaster Medical Assistance Team supporting the overall U.S. response in Haiti, which is being coordinated by the U.S. Agency for International Development, and the public health efforts of the World Health Organization (WHO) and the Pan American Health Organization (PAHO). CDC also coordinated closely with international and national governmental organizations and non-governmental organizations (e.g., International Red Cross, World Food Programme, UNICEF, and CARE).

During the response, CDC's primary role is to support surveillance and help address food and water safety and the prevention and treatment of infectious diseases. CDC public health information on earthquakes and updated information about our response to the Haiti earthquake are posted on the **CDC website.**

Photo credit: CDC

CDC staff head out to Haiti on January 18, 2010. Their mission includes helping to prevent tropical diseases, airborne and waterborne, from spreading through the population.

Nodding Disease affecting Children in Northern Uganda

In December 2009, CDC was asked by the Ugandan Ministry of Health to assist with a multidisciplinary field investigation of an outbreak of "nodding disease" in Kitgum District, Uganda. The disease affects children aged 5 to 15 years, and it is characterized by episodes of head nodding, often with other neurologic problems such as seizures, psychoses, and mental deterioration. Hundreds of children have been reported to be affected, many in internally displaced population camps, and in Uganda, Sudan, and Tanzania. Findings from preliminary investigations have been inconclusive, there is no known treatment or cure, and no patients are known to have recovered.

CDC deployed a team of experts representing infectious disease, environmental health, neurology, and nutrition to Uganda to consult on the outbreak and its causes. Partners in the response included the Ugandan Ministry of Health, CDC-Uganda, the World Health Organization (WHO), and the African Field Epidemiology Network (AFENET). Data analyses are in the initial stages. Over the course of two weeks, the team surveyed 180 children who met the case definition and conducted a range of evaluations: psychiatric and neurologic examinations; testing of blood, urine, skin snips, spinal fluid; and electroencephalograms. Interviews with community members found that villagers thought the disease might be caused by spirits, onchocerciasis (a parasitic infection that can lead to blindness), or contaminated food, but in general were perplexed about the disease's cause and discouraged by its effects on their community. CDC investigators documented significant abnormal brain wave activity on EEG and are currently evaluating possible causes. It is hoped that the data analyzed thus far, combined with findings from various biometric recordings, will help yield a definitive etiology in the near future.

Thailand First to Release Results of the Global Adult Tobacco Survey

In November 2009, Thailand became the first of 14 low- and middle-income countries (Bangladesh, Brazil, China, Egypt, India, Mexico, Philippines, Poland, Russian Federation, Thailand, Turkey, Ukraine, Uruguay and Vietnam) to release results of the **Global Adult Tobacco Survey (GATS)**

The **country report** states: that, "Among 12.5 million current smokers, almost half of them (49.8 %) made an attempt to quit in the last 12 months. Among current smokers and recent quitters (<12 months) who visited any health facility, 60.2% were asked about their history of tobacco smoking while 51.9% were advised to quit smoking."

Photo credit: Samira Asma, CDC

Representatives from Thailand's Ministry of Public Health, CDC, CDC Foundation, WHO, Campaign for Tobacco-Free Kids, and various Thailand GATS partners after the release of the survey results.

CDC Investigates One of the Largest Outbreaks of Hepatitis E

CDC's investigation of the outbreak of hepatitis E virus in the Kitgum district in northern Uganda appears in the **January Emerging Infectious Diseases Journal**. The district outbreak is part of one of the largest outbreaks to date impacting northern Uganda. In Kitgum over 10,000 people became ill and almost 200 died. There was particularly high morbidity among women, especially pregnant women, and children (infants to 2 years).

High morbidity may be due to the lack of preexisting immunity since this was the first reported epidemic in Uganda. Safe drinking water, adequate sanitation and personal hygiene are the most important public health interventions to prevent hepatitis E. Despite availability of preventive measures and the rapid spread and long incubation of the disease, efforts to develop a vaccine are imperative.

3rd Annual Report to Congress on The Assistance for Orphans and Other Vulnerable Children in Developing Countries Act of 2005 (Public Law (PL) 109-95)

PL 109-95 was passed in 2005 with the aim of ensuring that the U.S. Government's assistance to Orphans and Other Vulnerable Children in Developing Countries is coordinated, comprehensive, and effective. In FY 2008 CDC expended approximately $5.5 million, including PEPFAR funds, on global health activities directly targeted to the needs of approximately 27,000 vulnerable children and young women. An additional $141million was invested in infectious disease prevention and control in ways that also contribute substantially to the needs of the children: providing immunizations, vitamin A, and bednets, among other proven interventions. More than 300 million doses of polio vaccine were provided in 2008 in the push to end the disabling disease.

The **report** details CDC accomplishments including preventing mother-to-child transmission of HIV, reducing infant abandonment, identifying and linking HIV-infected orphans and street youth to clinical care and support, and increasing the use of modern contraception among HIV-infected women wishing to avoid pregnancy.

Photo credit: Bobbie Person, CDC

CDC's Global AIDS Program Director Addresses Rome Conference on Partnerships among Governments and Faith-Based Organizations

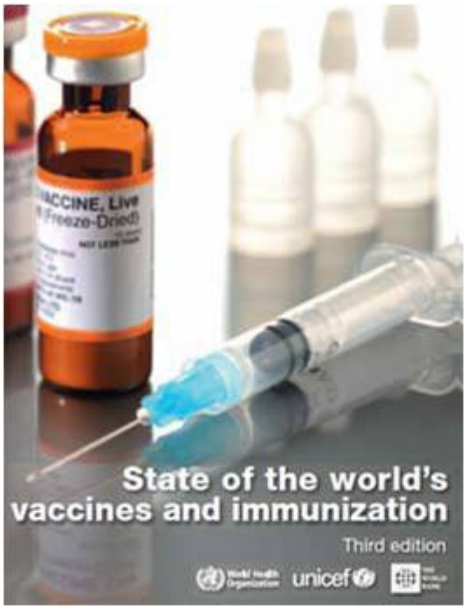
At the request of Ambassador Goosby (Office of the Global AIDS Coordinator), Dr. Deborah Birx, director of the Global AIDS Program at CDC participated in a conference in Rome on creating partnerships among governments and faith-based organizations in the global fight against HIV/AIDS, particularly the effects of the disease on children. The **October conference** brought together physicians, members of religious orders, heads of Catholic-sponsored AIDS projects, professors of theology, and representatives from the pharmaceutical industry. Partnerships between the U.S. Government and faith-based organizations are critical; the US is the largest source of foreign assistance and the Catholic Church is the world's largest aid-delivery organization.

Photo credit: US embassy to the Holy See

UNAIDS Executive Director Michel Sidibé discusses HIV/AIDS partnerships with Dr Deborah Birx, director of the Global AIDS Program, CDC; Dr Georges Tiendrebeogo, Royal Tropical Institute, Cordaid; and Dr Miguel H. Diaz, U.S. ambassador to the Holy See.

Release of Latest *State of the World's Vaccines and Immunization*

On October 21, 2009, the World Health Organization (WHO), the United Children's Fund (UNICEF), and the World Bank released the third edition of the **report State of the World's Vaccines and Immunization (SOWVI)**. The report evaluates the Global Immunization Vision and Strategy (GIVS) established in 2005 by WHO and UNICEF to expand global vaccine coverage and development through the integration of immunization with other health systems, global interdependence and new technologies. Among the successes identified in the report was the unprecedented immunization of 106 million infants in 2008. The report also acknowledges a funding gap that must be addressed before the remaining 24 million children are immunized.



Pan American Health Organizations Names Jon Kim Andrus Deputy Director

Dr. Jon Kim Andrus has been named deputy director of the Pan American Health Organization, Regional Office for the Americas of the World Health Organization (PAHO/WHO). Before the **announcement**, Dr. Andrus served as lead senior technical advisor for PAHO's immunization program, where he has been a forceful advocate for spreading the benefits of vaccination. He is also the director of the George Washington University's Global Health MPH Program and holds adjunct faculty appointments at the University of California at San Francisco School of Medicine and the Johns Hopkins Bloomberg School of Public Health.