icddr,b to investigate high burden of preterm birth and stillbirths in Bangladesh

5 March 2014, Dhaka: icddr,b has launched a study to better understand the complex relationship between risk factors and preterm births (PTB) in Bangladesh. The US$1.45 million project will allow scientists at icddr,b to investigate the high burden of preterm birth and stillbirth in low- and middle-income countries. With funding through the Preventing Preterm Birth initiative, a Grand Challenge in Global Health administered by the Global Alliance to Prevent Prematurity and Stillbirth (GAPPS), an initiative of Seattle Children’s, icddr,b will conduct the population based cohort study in Matlab, a sub-district of Chandpur district and one of icddr,b’s largest and oldest field sites.

Globally, 15 million babies are born preterm each year, and more than 1 million of those do not survive their first month of life. The situation is especially dire in low- and middle-income countries where 98% of all neonatal deaths occur. In a rural setting in Bangladesh, the current PTB rate is about 12.5%. Several risk factors are associated with PTB which may be broadly categorised into socio-behavioral, medical, infection, inflammation, nutritional, environmental and genetic. Considering that little progress has been made in preventing preterm births (PTB) icddr,b’s Centre for Reproductive Health will investigate the social-environmental and biological factors related with PTB with the hope to generate high quality data on pregnancy, delivery and immediate post-partum periods and collect biological specimens and store for future use to investigate risk factors of PTB.

Anisur Rahman, Ph.D, head of the Matlab Health Research Centre at icddr,b will work with his team to enroll 4,700 pregnant women over a 3 year period. The research sites will enroll women early in pregnancy and collect information and biological specimens during their pregnancy and delivery.

The pregnant women will be followed up to delivery. Information on socio-economic-behavioral factors and dietary information will be collected during household visits. Clinical assessment data and morbidity information will be collected by nursing staff or medical doctors in each visit and at each contact.

“We have a very good system for identifying pregnancy, as well as for staying in contact with mothers and babies after pregnancy to collect follow-up data and samples,” Rahman said. “Our center has the potential to contribute a lot to global research, because preterm birth is shared by both developed and developing countries.”

The data and specimens collected during the study will be used to advance innovative research into the causes of preterm birth and identify novel strategies for prevention. Areas of investigation will include studies of infection, inflammation, the microbiome, the immune response, and other pathways leading to increased risk of preterm delivery. The project will deliver high quality data on demography, clinical, biological and environmental features to investigate the causal linkage and formulating and testing public health interventions for preventing PTB in Bangladesh and other developing countries.
Note to the Editor:

GAPPS
The Global Alliance to Prevent Prematurity and Stillbirth, an initiative of Seattle Children’s, leads a collaborative, global effort to increase awareness and accelerate innovative research and interventions that will improve maternal, newborn and child health outcomes around the world. Join us on Facebook and Twitter, and learn more at http://www.gapps.org.

Preventing Preterm Birth initiative (PPB)
The PPB seeks to discover biological mechanisms that lead to preterm births and develop novel interventions to prevent them. GAPPS has funded seven research projects through the PPB, and those investigators will work in collaboration with these international cohorts of pregnant women, which will allow them to develop interventions to help those who suffer the greatest burden of preterm birth.