PSI/PASMO GESTATIONAL DIABETES MELLITUS

Program participant, Elizabeth Leonor Gutierrez Romero, left, brings in her 6-week old son, Osman Elias Guido Ramirez, to meet with Dr. Olga Mena, a Red Segura provider, who offers weekly counseling on maternal and infant nutrition.

The GDM program was originally designed to follow women through delivery and infants up to six months of age. Given the program’s success, participating hospitals are now providing additional resources for mothers to continue with weekly visits until their babies reach six months of age. The additional time allows women to continue making healthy lifestyle choices while adjusting to life with a newborn. Hospital administrators recognize the importance of preventative measures to improve health as both a social responsibility and a means to keep health systems costs in check. PASMO hopes to secure additional funding to follow newborns until age 5 years of age to document long-term health outcomes among infants born in this program.

Since 2013, a total of 1,605 women in Nicaragua have been screened for GDM.

THE GLOBAL BURDEN OF GESTATIONAL DIABETES MELLITUS

The number of women with gestational diabetes mellitus (GDM), defined as ‘any degree of glucose intolerance with onset or first recognition during pregnancy’ has steadily increased over the past two decades, though the extent of the problem in developing countries is largely unknown. Despite being associated with several pregnancy complications, and increased risk to both mother and infant of developing type 2 diabetes later in life, gestational diabetes remains a neglected maternal and infant health issue globally.

PSI/PASMO RESPONDS

With support from Novo Nordisk and the World Diabetes Federation, Population Services International (PSI)’s local network member in Latin America, the Pan American Social Marketing Organization (PASMO), is working through several Red Segura social franchises in Managua, Nicaragua to offer prenatal clients access to screening, diagnosis and treatment for GDM. Women who test positive for the condition are enrolled in a GDM management program that includes weekly consults with a nutritionist, a personalized nutrition and exercise plan, regular glucose testing, and text message reminders and tips. In addition, providers receive training and supportive supervision to improve their capacity to screen, diagnose, and manage GDM among their patients.

KEY PRINCIPLES

EXPANDING ACCESS TO GDM SCREENING FOR PREGNANT WOMEN

Women with GDM are more likely to give birth to large-for-gestational-age (LGA) infants, which can lead to obstructed labor as well as higher rates of both maternal and infant injury and death. Long-term health complications are also more common among women with the disease. In fact, more than 50% women with GDM develop type 2 diabetes within 5-10 years of delivery. In addition, infants with GDM have higher prevalence overweight and obesity, and higher risk of developing type 2 diabetes later in life. For each of these reasons, access to screening, diagnosis, and treatment for GDM is essential to maintain the health and wellbeing of mothers, infants and their families worldwide. Since 2013, PSI/PASMO has provided blood glucose screening for 1,605 women and offered both treatment and lifestyle interventions for 305 women as part of a comprehensive package of prenatal care at four participating Red Segura franchises in Managua, Nicaragua.
DELLIVERING SERVICES
PSI/PASMO maintains a strong commitment to building provider competencies at each stage along the continuum of care. This enables our social franchise providers to ensure high quality services for their clients. As part of the GDM program, PSI/PASMO has trained a total of 233 health providers, including lab technicians, nurses, physicians, and nutritionists, on how to properly diagnose, treat, and educate women to manage GDM during pregnancy. Successful management of healthy weight and moderate exercise are important for maintaining good health during gestation. A key success of this program is the combined expertise offered by nutritionists working in tandem with pharmacists and clinical specialists (e.g., internists and obstetrician/gynecologists).

INTEGRATED CARE
To achieve maximum impact, GDM services must be fully integrated within existing maternal health services. To this end, PSI/PASMO integrates GDM services into its existing reproductive health package of services, which includes family planning, prenatal care, and postpartum care for women.

EVIDENCE BASED COMMUNICATIONS
PSI/PASMO utilizes social marketing principles and key behavior change theory to develop integrated, evidence-based communication interventions. Interventions are designed to promote and reinforce healthy behaviors (e.g. maintain healthy weight through nutritious meals and moderate exercise), and improve uptake of quality reproductive health services (e.g. minimum of 4 prenatal visits, assisted delivery by a trained health provider). PSI/PASMO’s overarching behavior change and communication planning and evaluation framework ensures communication programs respond to identified epidemiological priorities and appropriately target key audiences. Communication strategies and messages are designed to address identified determinants of behavior, including knowledge, skills and self-efficacy in addition to social norms and other external factors.

PSI/PASMO communication interventions utilize a multi-channel approach and depending on local context, may be implemented through one of a number of channels including: mass media, peer education, school-based programs, participatory theater, mobile multi-media events, innovative new media and mobile based technologies, interpersonal outreach and special event sponsorship. In this program, prenatal clients are informed about the program directly by Red Segura providers and offered blood glucose screening based on their risk profile for development of GDM.

PIONEERING RESEARCH
Using a wide range of research methodologies, PSI/PASMO harnesses research to both inform intervention strategies and to measure the impact of its interventions. When designing interventions, appropriate quantitative and qualitative research tools are used to estimate target populations, identify determinants of targeted health behaviors, select and pretest messages, and measure geographic accessibility of products and services. Under the GDM program, PSI/PASMO partnering with the Universidad Nacional Autonoma de Nicaragua, Managua to validate program results to date.