Safe motherhood campaign associated with more prenatal visits, birth planning, study finds

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In Tanzania, pregnant women who were exposed to a national safe motherhood campaign designed to get them to visit health facilities for prenatal care and delivery were more likely to create birth plans and to attend more prenatal appointments, according to new Johns Hopkins Bloomberg School of Public Health research.

The findings, published last month in the journal *BMC Pregnancy and Childbirth*, suggest that a strategic, social and behavior change communication campaign broadcast via radio, television and print media can help empower women to take the steps necessary for healthy pregnancy, safe delivery and proper care for newborns. Despite improvements over the last few decades, maternal mortality in Tanzania remains among the world's highest, with 454 maternal deaths per 100,000 live births. Infant mortality rates are also high.

The Wazazi Nipendeni ("Love me, parents," in Swahili) campaign was part of the Tanzania Capacity and Communication Project, which was run by the Johns Hopkins Center for Communication Programs (CCP) from 2010 until 2016. The messaging was designed to improve a range of maternal health outcomes by encouraging women to prepare birth plans, start prenatal visits as early in pregnancy as possible and give birth at a health care facility.

When the campaign was developed, only 15 percent of pregnant women

in Tanzania were seeing a health provider in their first trimester. "We want to shift the culture of delayed health-seeking behavior for Tanzania's pregnant women," says Jennifer Orkis, MHS, a senior program officer at CCP and one of the study's authors. "An early visit to the doctor during pregnancy is a gateway behavior that can then trigger a number of other positive health behaviors, such as being tested for HIV or receiving medication to prevent malaria in pregnancy. The sooner pregnant women go for a prenatal visit - and the more we can empower them to ask for the services they need - the better the chances for themselves and their babies."

There are several factors related to why women may delay or avoid health provider visits during pregnancy. In Tanzania, for example, there is a culture of secrecy around pregnancy, fear that "the evil eye" could curse the pregnancy, the distance to health facilities and costs associated with leaving home or work as well as obtaining transportation.

The study was conducted by researchers from CCP and the Johns Hopkins Bloomberg School of Public Health. As part of the research, 1,708 women were interviewed - 837 before giving birth and 871 after. They were interviewed outside health facilities in five regions of Tanzania. Two-thirds of the facilities were in rural areas. A majority of the women had little education and little money. They were paid the equivalent of about $3 U.S. to participate in the study.

Of those women, 35 percent reported seeing or hearing a Wazazi Nipendeni message in the previous month, with 16.5 percent reporting daily exposure. Urban, more educated and wealthier women were more likely to have been exposed to the messages, they found. The average number of prenatal visits for everyone in the study was 2.5, while 12 percent visited four times and five percent visiting five or more times. The more messages a woman was exposed to, the more likely she was to attend more prenatal visits. Experts recommend at least four prenatal

visits for pregnant mothers.

While 85 percent of women in the study had given birth at a health facility, 15 percent had not. One-third of the women who gave birth at home did so because they could not get to a hospital or clinic in time. Reasons for that vary, including the distance to the health facility and the cost of transportation. Giving birth at a health facility is linked to better health outcomes for mothers and their babies.

Pregnant women who were exposed to the campaign were more likely to plan for their births, including knowing the due date, arranging transportation to a health facility, deciding who would go with them and who would stay back to watch any other children they may have.

The campaign was meant to be ubiquitous, with radio and television spots, billboards, posters, bumper stickers, T-shirts, brochures, a text messaging system, community outreach activities and promotional materials including the campaign's calls to action.

Key behaviors targeted by the Wazazi Nipendeni campaign were depicted in scenarios in which pregnant characters worked through issues that would be common to other Tanzanian women.

In one radio spot, for example, a pregnant woman tells her mother-in-law about her pregnancy. The mother-in-law is overjoyed, encouraging her daughter-in-law to tell her husband and go for her first prenatal visit, modeling the importance of male involvement and the need to visit the doctor early and often during pregnancy. Another depicts a pregnant woman convincing her partner to be tested for HIV.

The campaign also included preventing transmission of HIV to the children of HIV-infected mothers and the use of insecticide-treated bed nets to prevent malaria.

One limitation of the study may be that the women were surveyed outside a health facility, suggesting that they are already exhibiting a degree of health-seeking behavior and therefore may be more likely to exhibit positive pregnancy behaviors. Orkis says it's also possible the women journeyed to the health facility because of the campaign, though the study was unable to determine the causal sequence of events.

The success of the integrated, multi-channel Wazazi Nipendeni campaign suggests that having a streamlined set of messages in a single campaign may be the most successful way of getting across important and specific health information, instead of having women bombarded by different calls to action from unconnected campaigns.

More information: "'Love me, parents!': impact evaluation of a national social and behavioral change communication campaign on maternal health outcomes in Tanzania" was written by Michelle R. Kaufman, Jennifer J. Harman, Marina Smelyanskaya, Jennifer Orkis and Robert Ainslie.

Provided by Johns Hopkins University Bloomberg School of Public Health