

026: A SYSTEM OF CASE MANAGEMENT MONITORING FOR PMTCT OF HIV TO IMPROVE HEALTH CARE PERFORMANCE IN RESOURCE-LIMITED SETTINGS

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Objective:

The purpose of the project was to develop a model computer-based case management monitoring system based on WHO's strategy and indicators for prevention of mother-to-child transmission of HIV (PMTCT) that could be used to improve PMTCT and MCH health care performance in resource-limited settings.

Methods:

As part of a comprehensive model PMTCT program at Odessa Oblast Hospital (OOH) in Ukraine, a case management monitoring system was developed to track the effectiveness of PMTCT interventions integrated into the maternal & child health (MCH) system. An ongoing, case-controlled study compared and tracked a baseline group of 50 pairs of HIV+ women and their babies with an intervention group consisting of HIV+ women (HIV status verified according to WHO and national protocols) and their babies whom had been participating in the PMTCT program since its inception in 2002. Women were enrolled in the program as they were admitted to the OOH for prenatal care and delivery.

Indicators for the case management monitoring system were adapted from the WHO/UNAIDS/ UNICEF guide on "Local Monitoring and Evaluation of the Integrated Prevention of Mother-to-Child HIV Transmission in Low-income Countries" (March 2000). Adaptation process included the translation and review of indicators with the Odessa PMTCT team to identify those relevant to the Ukrainian health care system, epidemiological situation, etc. Several indicators (e.g., exclusive breastfeeding) were modified to reflect established practices (e.g., replacement feeding). A database was created in MS Access for 31 selected indicators grouped into four main sections: prenatal period, delivery and postpartum, newborn information, and follow-up care for mother and child.

Training was provided to healthcare providers on the monitoring system and data requirements. Data forms were completed by providers and data was entered by a database manager. Results were reviewed on a monthly and quarterly basis by the maternity hospital medical director and database manager. Trends in indicator results were analysed, and any decrease in quality of care was detected (compared to the previous month/quarter) and investigated; each involved case was examined to determine the reason for decline. Based on the analysis, required interventions were developed. For example, one indicator showed 3% of pregnant women missing ARV prophylaxis due to refusal to take ARVs rather than availability of drugs or lack of professional knowledge. This demonstrated the need to develop community-oriented PMTCT educational programs, particularly for vulnerable groups.

Results:

Use of the PMTCT case management monitoring system has facilitated the continuous improvement of services, resulting in a 75% decrease in the number of HIV-infected babies born to HIV+ women at the OOH (from 24% in baseline group to 6% in PMTCT group as of 2003). Additional results against other indicators of healthcare delivery improvement, such as percent of cases where HIV test results are available pre-delivery and percent of babies receiving ARV prophylaxis, will be presented. As of March 30, 2004, the indicators captured data for 244 women and 246 babies enrolled in the PMTCT program. Based on the Odessa experience, Ukraine's Ministry of Health issued an order in Dec 2003 indicating its decision to adopt the monitoring system (including indicators), as it replicates the model program throughout the country.

Conclusions:

The PMTCT case management monitoring system, by adapting internationally accepted indicators and involving local stakeholders in the process, has proven to be a low-cost, effective and replicable model for measuring healthcare performance and improving quality of MCH services in resource-limited settings. Monitoring key indicators through a simple database enables health providers to analyse specific fields for improvements and to demonstrate impacts on healthcare outcomes.