

# ELECTRONIC DECISION SUPPORT FOR CARDIOVASCULAR HIGH-RISK PATIENTS MANAGEMENT IN TIBET, CHINA

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Journal MTM 1:4S:21

DOI: 10.7309/jmtm.44

www.journalmtm.com

## ABSTRACT

**BACKGROUND** An electronic decision support (EDS) system in the health sector is a computer or smartphone based application used to assist clinicians in medical decision making. Community healthcare workers (CHWs) who usually have little professional training may particularly benefit from EDS to better equip them for community-based chronic disease care. To our knowledge, there are no studies in China on EDS for CHWs.

**METHODS** We will incorporate an EDS component in a cluster-randomized controlled trial currently being conducted in 23 villages in 2 counties in Tibet, China whose aim is to develop, pilot test, and evaluate a guideline-based yet simplified cardiovascular management program delivered by CHWs (also called village “doctors”) for high cardiovascular risk patients.

The EDS system is a smartphone-based application that aims to help CHWs better follow up and manage their high cardiovascular risk patients on a monthly basis during the 12 months intervention period. The application consists of prompts regarding patient’s medical history, new conditions, medication use, lifestyle habits, physical examination findings, and appropriateness for prescribing two types of CVD risk lowering medications (aspirin and low- dose diuretics). These monthly records from the cellphone can easily be uploaded by CHWs to a central server to generate key performance indicators and provide performance feedback to the CHWs to improve the quality of their care.

**CURRENT STATUS** The EDS application were supplied to all CHWs between May and June 2012 and will be used for about one year. Interim process evaluation on EDS will be conducted by October 2012 with final data collection by May 2013.

**SIGNIFICANCE** As the first study with an EDS component for CHWs to manage cardiovascular high-risk patients in China, this project provides an opportunity to evaluate the feasibility and effectiveness of this innovative technology in capacity building and medical decision support.