

Cardiovascular disease risk reduction in rural China – policy recommendations



POLICY BRIEF



Nurses taking blood tests

Cardiovascular disease (CVD) is the leading cause of morbidity and mortality worldwide. In China, CVD accounts for 38% of total mortality. CVD events are predicted to increase by 23% from 2010 to 2030, resulting in an additional 21.3 million CVD events and 7.7 million deaths. Meta-analysis has indicated that CVD risk reduction by treating hypertension or diabetes is not sufficient. A comprehensive approach based on drug therapies and lifestyle is needed. Based on preliminary effects of an exploratory study, in a rural primary healthcare setting in Zhejiang, China, we initiated a pragmatic, cluster randomised controlled trial (cRCT) to assess the health effects of the interventions over 2 years.

This is, to our knowledge, the first pragmatic cRCT that implements a comprehensive package at the primary healthcare level for high CVD risk hypertensive or diabetic patients.

Findings (all compared with control arm)

- ✓ Better drug adherence in the intervention arm (66% vs. 47%);
- ✓ Smoking rates were significantly reduced in the intervention arm (4% reduced vs. 2% increased);
- ✓ More patients in the intervention arm took less salt (50% vs. 34%);
- ✓ Patients in the intervention arm reported drinking less alcohol and had more exercise (32% vs. 15%, and 31% vs. 18%, respectively);
- ✓ Prescribing and taking of statins and aspirin, and prescribing (but not taking) of anti-hypertensives, were substantially higher.

Recommendations

- Raising coverage for essential medicines for hypertension and diabetes in primary care facilities;
- More intensive training of doctors;
- Innovative patient education;
- Improved health insurance cover for outpatients.

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This brief is informed by the following research:

1. Zou G, Wei X, Gong W, Yin J, Walley J, Yu Y, et al. (2014) Evaluation of a systematic cardiovascular disease risk reduction strategy in primary healthcare: an exploratory study from Zhejiang, China. *Journal of Public Health*. 2(1): 241-250. doi.org/10.1093/pubmed/dfu013

2. Wei X, Zou G, Gong W, Jia Y, Yu Y, Walley J, et al. (2013) Cardiovascular disease risk reduction in rural China: a clustered randomized controlled trial in Zhejiang. *Trials*. 14: 354. doi.org/10.1186/1745-6215-14-354

3. Wei X, Walley J, Zhang Z, Zou G, Gong W, Deng S, et al. (2017) Implementation of a comprehensive intervention for patients at high risk of cardiovascular disease in rural China: a pragmatic cluster randomized controlled trial. *PLoS One*. 12(8). doi.org/10.1371/journal.pone.0183169

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