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## **Salt sales survey: A simplified, cost-effective method to evaluate population salt reduction programmes-a cluster randomised trial**

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**Background:** The 24 h urine collection, as a gold standard method to measure salt intake, is costly and resource-consuming, hence limiting its use in monitoring population salt reduction programmes. Our study aimed to determine whether a salt sales survey could serve as an alternative.

**Methods:** We carried out a sub-study of China Rural Health Initiative Sodium Reduction Study (CRHI-SRS), where 120 villages were randomly allocated (1:1:2) to PS+HE (Price Subsidy+Health Education) intervention, HE (Health Education) intervention and control, with salt substitute(SS) supplied to shops in the intervention groups. 24 h urine from 2567 randomly selected adults was collected at the end of the trial. In this sub-study, ten villages were randomly selected from each group (i.e. 30 villages in total) and 166 shops from these villages were invited for the monthly salt sales survey.

**Results:** The results showed that during the intervention period, mean daily sales of SS per shop were significantly different among three groups (PS+HE=1.3 kg> HE =0.6kg >control=0.1kg, all P<0.05). The pattern of differences was in line with that for 24 h urine sodium and potassium. The intervention effect estimated from SS sales was 114% of that estimated from 24h urine for potassium and was 101% for sodium. Furthermore, the salt sales survey cost only 14% of that for 24h urine and had greater statistical power.

**Conclusions:** The results indicate that a salt sales survey could serve as a simple, sensitive and cost-effective method to evaluate community-based salt reduction programmes where salt is mainly added by the consumers.

### **Biography**

Yuan Ma is a PhD student in Cardiovascular Epidemiology at Peking University School of Public Health. Her research interests lie in population salt reduction, diet & public health, and cardiovascular diseases. Her supervisor is Professor Yangfeng Wu. She is currently studying at Wolfson Institute of Preventive Medicine, Queen Mary University of London as an associate PhD student under the supervision of Professor Graham MacGregor and Dr. Feng He.

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