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**CONFERENCE ABSTRACT****Coordination of care in the Chinese health systems: A gap analysis of service delivery from a provider perspective**16<sup>th</sup> International Conference on Integrated Care, Barcelona 23-25 May 2016Xin Wang<sup>1</sup>, Qingyue Meng<sup>1,2</sup>, Stephen Birch<sup>3</sup>

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**Introduction:** Increases in health care utilization and costs resulting from the rising prevalence of chronic conditions related to aging populations, is exacerbated by a high level of fragmentation that characterizes health care systems in China. There have been several pilot studies of structural integration, but not much is known about the impact on care coordination, which is an important aspect of healthcare system integration. The aims of this study are to (1) measure the influence of structural integration on care coordination in county-level health systems of rural China and (2) identify barriers to care coordination for promoting healthcare system integration among providers.

**Methods:** Huangzhong and Hualong counties in Qinghai province were adopted as study sites, with only Huangzhong having implemented structural integration. In Huangzhong, all medical institutions were grouped into three vertical consortia with detailed cooperative agreements about patient referral, information sharing and joint training. A case-study method is employed with all institutions at the county level along with a stratified sample of 3 township health centers and 6 village health stations in each county, a total study sample of 29 institutions. In order to measure care coordination, schizophrenia and diabetes were adopted as two tracer conditions. The data about care coordination were collected using questionnaires for key informant doctors of the relevant departments in each institution. Based on "Best Practice guidelines" for two conditions developed by document analysis and expert consultation, gap analysis was used to analyze discontinuities in care covering, gaps in care, overlaps of care and over-provision of care for different types of interventions (prevention, screening, diagnose, treatment, rehabilitation and case management) at different levels of institutions. Interviews with institutional leaders were conducted for exploring barriers to care coordination.

**Results:** There are more care discontinuities for both diabetes and schizophrenia in Huangzhong than in Hualong. Overall, all three index scores (gap, overlap and over-provision) showed similar tendencies between the two conditions. The gap indices of schizophrenia are bigger than diabetes in both counties. At the system level, overlap indices for the two conditions exceed justified overlap, especially for diabetes. Specifically, there are smaller gap

index scores of schizophrenia interventions for township-level institutions in Hualong than in Hualong. However, a bigger over-provision index was found for diabetes interventions at both village- and township-level institutions in Huangzhong than in Hualong. Insufficient medical staff with appropriate competencies, lack of motivation for coordination and related supportive policies, unconnected information system are barriers to care coordination in both counties.

**Discussion:** Results of the quantitative analysis did not show a significantly higher degree of care coordination in Huangzhong (with structural integration) than in Hualong (without structural integration). At the same time, the gap index and over-provision index scores displayed different shortcomings of the two health systems. The greatest weakness of the health system is the village-level institutions in Hualong, but at county-level institutions in Huangzhong. In terms of overlap, although the index score in Huangzhong is closer to Best Practice guidelines than in Hualong, there is much room for improvement in both counties. Although quantitative analysis did not show significant association between structural integration and care coordination, officials interviewed in Huangzhong suggested there were positive impacts on cooperation among institutions in each medical consortium. For instance, it is easier for patient referral and expert consultation.

**Conclusion:** This study makes two contributions. First, gap analysis provides a methodology for broad use in health care systems to provide evidence on coordination from the perspective of providers. It can be used in other health care systems in China and other low-and-middle income countries, experiencing integration. Second, gap analysis identified barriers to bridge the gap, reduce over-provision and avoid overlap of interventions in both counties. Findings demonstrate that a higher level of care coordination has not been achieved by structural integration under the health care system setting of Huangzhong. It implies that more effort is needed on other integration strategies, such as functional integration that encourages clinical and service integration, to achieve care coordination. The study was designed to measure care coordination by the number of interventions provided, without taking care quality into account. Satisfaction of patients for care coordination and their health outcomes in the long term are suggested in further research.

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**Keywords:** structural integration; care coordination; healthcare system integration; gap analysis

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