

# A Regional Model for Healthcare Information Sharing in China

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## Abstract and Objective

The regional model for information sharing has been under national discussion in many countries. China also has a great demand on information sharing in healthcare. This paper describes a regional information sharing model for the Chinese healthcare system. It is a stepwise implementation of integrated regional healthcare services to create a virtually borderless healthcare organization.

## Keywords:

Electronic health record, Regional information sharing, China

## Introduction

The Chinese health system is very complicated. For example, Shanghai has 19 districts, of which Pudong New Area is the biggest and industrially leading district. Pudong New Area has a 3-level healthcare services network. There are 3 third-level hospitals (University Hospitals), 6 second-level hospitals (District Hospitals), and 29 community hospitals (Healthcare Centers), about 500 healthcare stations and clinics in Pudong New Area. In addition, there are more than 10 professional public health organizations (such as Center for Disease Control and Prevention (CDC) and the Maternal & Child Healthcare Center, and emergency care center as well. One of the challenges so far has been the lack of information sharing between all of these health organizations, which have lead to inefficiency in services provision and risks to patients.

## Methods

The joint China-Finland e-health Partnership project was approved in the bilateral governmental China-Finland Science and Technology Programme in 2007. Pudong New Area was selected as a pilot environment in Shanghai. The pilot hospitals have been selected according to a '3+3+1' Model: 3 hospitals (The East Hospital, Pudong Gongli Hospital, Maternity and Children Hospital), 3 healthcare centers (Weifang Healthcare Center, TangQiao Healthcare Center and LuJiaZhui Healthcare Center), and Pudong CDC (Center for Disease Control and Prevention). The data gathering methods in Pudong pilot project, on which this paper is based on, included questionnaires, interviews, several group discussions and brainstorming, including three joint meetings.

## Results

One goal of the Pudong New Area regional system project was to develop a regional platform for the healthcare information sharing in Pudong. The architecture of Healthcare Information System at Pudong was based on Health Information web portal and a Regional Central Repository at Zhangjiang Area. Another goal is to introduce an integrated EHR system. EHR follows a "1+nx+Y" Model, "1" stands for one personal health record, "nx" stands for multiple uses of patient information for variety of health services such as maternal care, chronic disease management, preventive care etc, "Y" stands for one coordinated set of clinical information including diagnosis, test results, prescriptions etc. The idea is to integrate both CHIS (Community Health Information System) for Primary care and HIS (Hospital Information System) for secondary care with the EHR system. In addition to public health system and health administration systems, so all different types of data are saved in the same regional repository and shared between all health organizations. The decision support system is being considered to integrate with the EHR for good use of data. A two-way eReferral system between primary and secondary care is designed to remotely transfer and share all the patient data. Security and identification solutions (Network security and Data security) are also very important in the regional model.

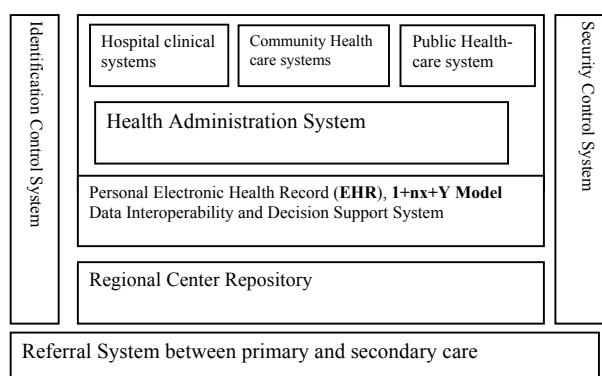


Figure 1-The General Architecture of the Regional Health Information Model at Pudong