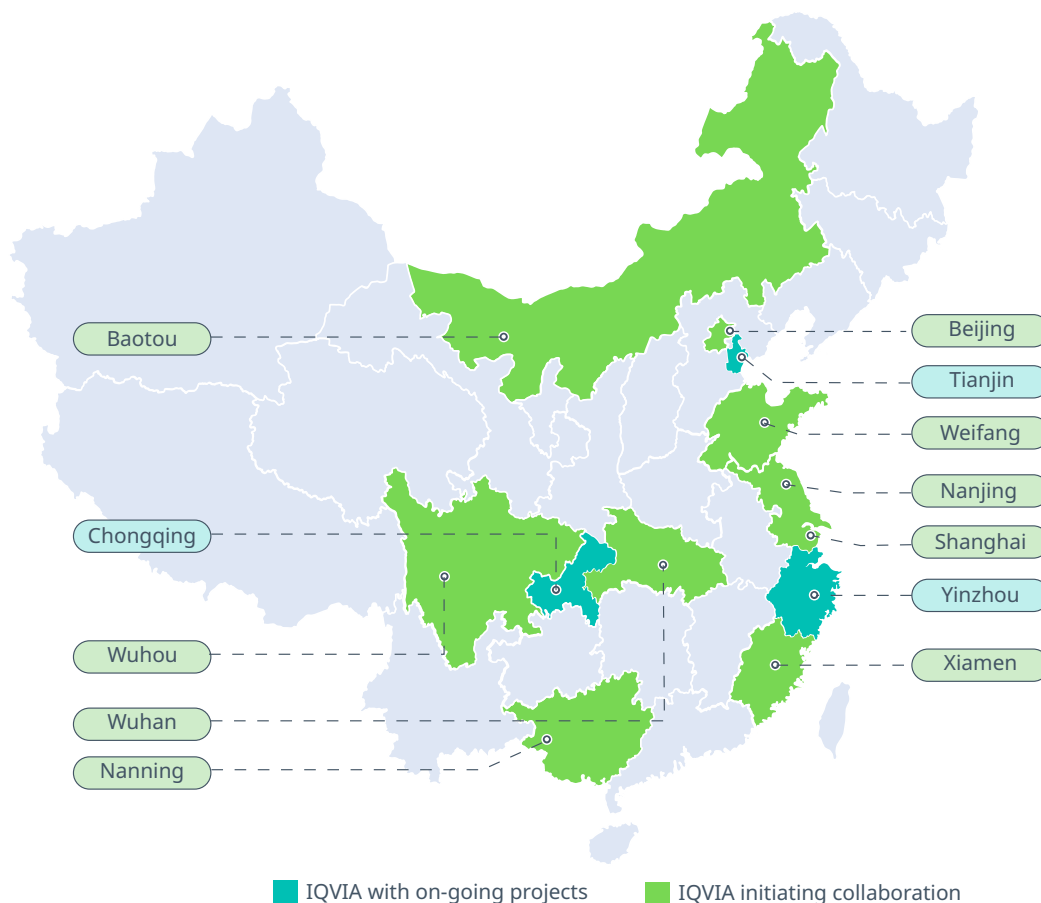IQVIA

# China Regional Electronic Health Records (rEHR)

China's rEHR Datasets includes 3 regional-level EHR sources comprising 333 hospitals and 256 health center stations, and other health service centers from Chongqing city, Tianjin city, and Yinzhou district in Ningbo city. Many other regional EHR databases are emerging across China in line with recent policy changes by the Chinese National Health Commission to promote the development of single large-scale health data platform.

**Ideal Data Uses and Highlights**

Ideal for commercial, med/sci, and AI/ML analysis, rEHR comprises both inpatient and outpatient hospital data and includes patient demographics, medical and clinical data (diagnosis, procedures, surgery, lab tests, comorbidities, hospitalizations, total cost of visit), and treatment information. Patient data is de-identified before being cleaned and structured in central database.

## Regional EHR with different levels of collaboration on RWE projects in China



Baotou · Chongqing · Wuhou · Wuhan · Nanning · Beijing · Tianjin · Weifang · Nanjing · Shanghai · Yinzhou · Xiamen

■ IQVIA with on-going projects     ■ IQVIA initiating collaboration

# China: General features of Chinese rEHR

**Closed-loop and linked data**
Compared to individual hospital based EMR data, regional EHR data are linked EMR data across hospitals of different tiers (tertiary, secondary and/or community health centers) in a region in China

**Coverage of outpatient data**
Both inpatient and outpatient data are covered within hospitals, while hospital based EMR data typically only cover inpatient data

**Clear governance structure and process**
Regional EHR databases are commissioned by local health authorities to support real world study in a highly efficient and compliant way

**Simplified IRB/EC approval**
Study timeline and budget are saved as only one central IRB/EC approval is required to use de-identified data from multiple hospitals, while studies using hospital based EMR data requires IRB/EC approval from each hospital

**Emerging across the country**
Regional EHR databases are emerging across China as recent policies released by the Chinese National Health Commission promote the development of one large health data platform

Abbreviations: EMR: Electronic Medical Records. EHR: Electronic Healthcare Records; IRB: Institutional Review Board; EC: Ethics Committee; RWD: Real World Data; RWE: Real World Evidence

# China: Specific features of rEHR databases

|  | **TIANJIN REHR** | **CHONGQING REHR** | **YINZHOU REHR** |
|---|---|---|---|
| **Description** | • **City-level** regional EHR database in Tianjin city | • **City-level** regional EHR in Chongqing city | • **District-level** regional EHR in Yinzhou, Ningbo city |
| **Data coverage** | • **~15 million** residents<br>• **82** hospitals | • **~32 million** residents<br>• **241** hospitals | • **~1.6 million** residents<br>• **10** hospitals + **22** community service centers |
| **Data standardization** | • **Unstandardized** data | • **Unstandardized** data | • **OMOP** data in T2D, HTN, COPD, CKD |
| **Geographic location** | • North China | • Southwest China | • East China |

Abbreviations: rEHR: regional electronic healthcare records; EC: Ethics committee; HGRAC: Human Genetic Resource Administration of China
*For full study, if the study does not involve/analyze genetic information or materials, there is no need for HGRAC application

# Introduction/Overview of the three datasets

**The Tianjin rEHR** is a regional database from urban hospitals in Tianjin, China. This database pools patient-level data extracted from 82 hospitals and covering a region encompassing ~15 million residents. The dataset aims to improve healthcare services, research, and interoperability by providing standardized and comprehensive health information.

**The Chongqing rEHR** is a regional database located in southwestern China and shares borders with Shaanxi, Hunan, and Guizhou provinces. This database pools patient-level data extracted from 241 hospitals encompassing a region with ~32 million residents. The dataset aims to improve healthcare services, research, and interoperability by providing standardized and comprehensive health information.

**The Yinzhou rEHR** is a district-level database encompassing a region of approximately 1.6 million residents in Yinzhou District, Ningbo City, China, since 2006. This dataset pools patient-level data extracted from 10 hospitals, 22 community health service centers, and 256 health service stations within the district. It serves as a valuable resource for research and insights related to healthcare outcomes and patient management.

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