4medica®
One Patient...One Record

Customer

Idaho Health Data Exchange (IHDE)

Statewide Health Information Exchange, Boise, ID

Challenge

Match 5.1M+ inbound clinical messages from multiple healthcare delivery settings to build comprehensive, accurate patient records, improving the health of 2.8M+ patients statewide through better care coordination.

Solutions

4medica Big Data MPI™

4medica 1% as-a-Service™

Results

- **HIE identity resolution completed on 2.8M+ searchable patients**

- **Patient ID duplication rates reduced to less than 1%**

- **HIE Master Data Management Roadmap built for greater stakeholder and participant collaboration**

ACCURATE PATIENT-MATCHING IMPROVES ACCESS, WHOLE-PERSON CARE

CASE STUDY

Through 2019, the Idaho Health Data Exchange (IHDE) had made progress on primary care participation and use of the IHDE portal; however, broader adoption was challenged due to the inability to aggregate reliable longitudinal records and structured data.

As participants in the State Innovation Model (SIM), a CMS grant initiative to advance multi-payer healthcare payment and delivery system reform models, IHDE's early efforts focused primarily on coordination of community shared services through the online portal, operating in a rudimentary technology and data landscape.

In 2020, in an effort to move forward and support value-based care and population health models, IHDE's new management team worked to transform their health information infrastructure as part of a stakeholder-oriented ecosystem, focusing on data completeness, reliability and quality, with identity management as the key starting point. IHDE sought to identify the needs of statewide payers, providers and other stakeholder organizations to develop reliable
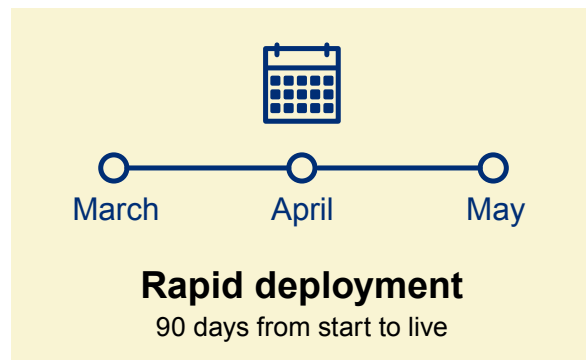
> *"Identity management was step one. If you can't reliably link the information on people coming from different sources, you can't even start the game.*
>
> Craig Jones, M.D., IHDE Chief Medical Officer

and complete longitudinal health records incorporating multiple data types, including electronic health records (EHRs); public health, behavioral health and social determinant of health needs; and potentially claims.

"Identity management was step one," explained Craig Jones, M.D., IHDE Chief Medical Officer. "If you can't reliably link the information on people coming from different sources, you can't even start the game."

Rapid deployment
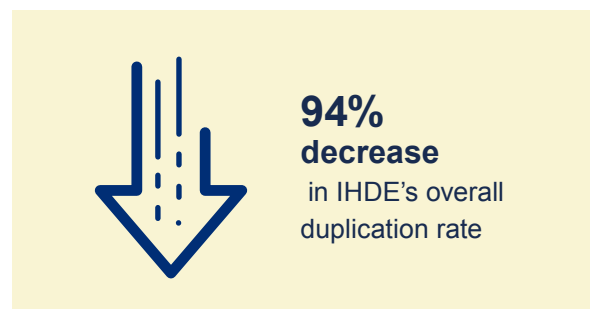90 days from start to live

Now, thanks to a more robust Enterprise Master Patient Index (eMPI) solution and the promise of reliable aggregated data, Dr. Jones described "growing interest and energetic engagement" coming from payers, hospitals, health systems, federally qualified health centers (FQHCs), physician practices, and rural health centers desiring access to IHDE's shared data services and patient records.

Keys to success

IHDE utilizes **4medica Big Data MPI**™ and **4medica 1% as-a-service**™ to provide a real-time, transaction cloud-based service that leverages technologies, people and proven processes. The hybrid approach affordably,

precisely and quickly assesses, normalizes and cleanses mismatched patient identity data to guarantee a 99% clean database that is considered foundational for patient safety, data integrity and interoperability.

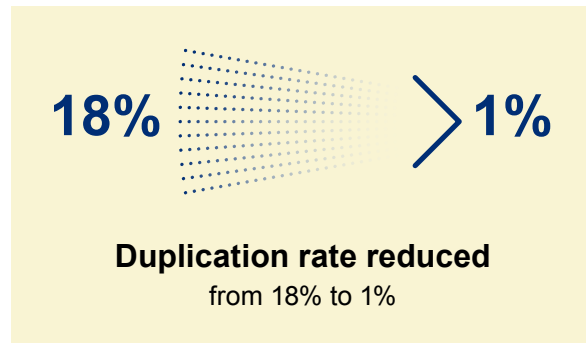**94% decrease** in IHDE's overall duplication rate

Patient ID matching assessment, cleansing and aggregating of the combined unstructured and structured data was key to achieving the desired outcome. 4medica's data stewardship team architected a series of IHDE challenges related to normalization and standardization of the breadth of information from multiple labs and sources to achieve authentic patient record management, seeking answers to the following key questions:

1) Do you know if the right person/patient is identified? Is that individual reliably set up as a complete medical record?

2) Are your codes standardized so that they are reusable, readable and accountable? How are you identifying items in clinical messages that need to be coded and making sure standardized code is attached?

3) Once identity and terminology are resolved, are you able to route the information more reliably to the portal

and newly created entity enterprise data warehouse? Once in the warehouse, do you have a process in place to ensure availability of the most complete longitudinal records with now normalized data and identity resolved to users across the state?

While the earlier approach was to "build technology and hope organizations would use it," said Dr. Jones, the new way is all about generating stakeholder engagement supporting an advanced data infrastructure and data management and integration services that merges well with population and value-based care models.

18% >**1%**

Duplication rate reduced
from 18% to 1%

Outcomes

Ultimately, Dr. Jones explained that IHDE went with 4medica "because the company was able to take care of identity resolution on large volumes and reverse our high duplication rates. 4medica also brought in the right support people to maintain this high-quality data, so it would no longer be a challenge going forward."

4medica conducted an in-depth analysis of overall data hygiene to isolate issues at every level and outlined a master data management roadmap to identify if further technology or software changes were warranted. The 4medica master data management solution reduced IHDE's detected duplication rate from 18% to 1%.

"These actions have set the stage to deliver the best longitudinal care record and resulting data, also bringing value to analytics and modeling," said Prudence Vincent, BSN, R.N., director of IHDE Customer Operations and Engagement. "Now providers have access to health records regardless of where the patient receives care. It brings a full spectrum picture to patient care and enables us to look at whole-person care—the right care, at the right time, in the right place—in a way that makes sense to Idaho's healthcare ecosystem."

About Idaho Health Data Exchange

Idaho Health Data Exchange (IHDE) is Idaho's statewide Health Information Exchange, dedicated to meeting the needs of healthcare providers and ensuring that Idaho's citizens receive the most effective health services possible. Working with a wide-array of stakeholders and actively building a best in breed technology infrastructure IHDE provides access to reliable data and information, combining traditional healthcare data with other data sources to help address the medical, behavioral, and social needs that influence the well-being of Idahoans. Visit idahohde.org

About 4medica

Guaranteeing an unprecedented 1% patient record duplication rate, 4medica® solves data integrity, financial and wellness management challenges to achieve true clinical interoperability and transparency. The company connects 40,000-plus physicians to hundreds of ACOs, HIEs, HINs, hospitals, health systems, laboratories, radiology imaging centers and payers nationwide. Visit 4medica.com.

For more information, visit 4medica.com.