COMMUNITYVIEWER

Integrated Data System

May 2015

CI:NOW

Why? …all the things to all the people

Need	Examples
Identify **people or households needing specific interventions**	• Identify schoolchildren who have just missed 3rd school day in a row • Public housing households generating multiple emergency room visits and school absences for respiratory problems
Track **individual, family/HH, or population progress**	• Change in EPN student math grade after four weeks of tutoring • Change in child's behavioral issues after non-custodial father secures and retains employment • Change in percent of EPN students missing 10% of more of school instruction days
Conduct **evaluation and research**	• Outcome measurement: Four-year graduation rate for kids who attended Pre-K vs. those who did not • Quantify the intensity of grades K-2 out-of-school time learning needed to preserve the protective effects of Pre-K thru 3rd grade

CI:NOW

What SA chose NOT to do, and why

- Import to warehouse
- Force use of single database by every partner
- Import lots of raw data to single database

CommunityViewer IDS intended to

- Integrate person-data with place-data
- Be used long-term across region
- Maximize power, minimize risk and effort
- Be scalable at low(ish) cost once core is built
- Make aggregate data freely available, keep PII highly secure and private

CI:NOW

What it integrates

- Person-to-person
  - Links and de-duplicates people, families, and households across datasets using record-matching algorithms and defined attributes
  - Early-warning dashboard and longitudinal tracking
- Person-to-place
  - Geocodes person-level records
  - Enables use of place-based data (neighborhood and environmental influences)
- Place-to-place
  - Aggregate up across datasets (census tract to ZCTA)

CI:NOW

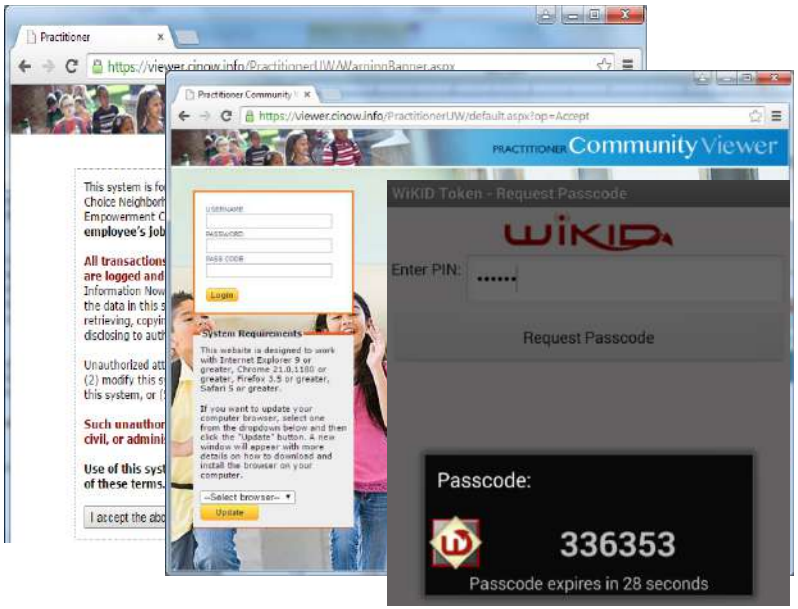
Governance and management

- Currently, control shared by United Way, CI:Now
- CI:Now handles user support; secure managed hosting and development (incl. data connections) contracted
- Data access and use controlled by (1) Agency MOU, (2) person consent, (3) User Agreement, (4) user rights, (5) supporting functionality

What that all looks like…

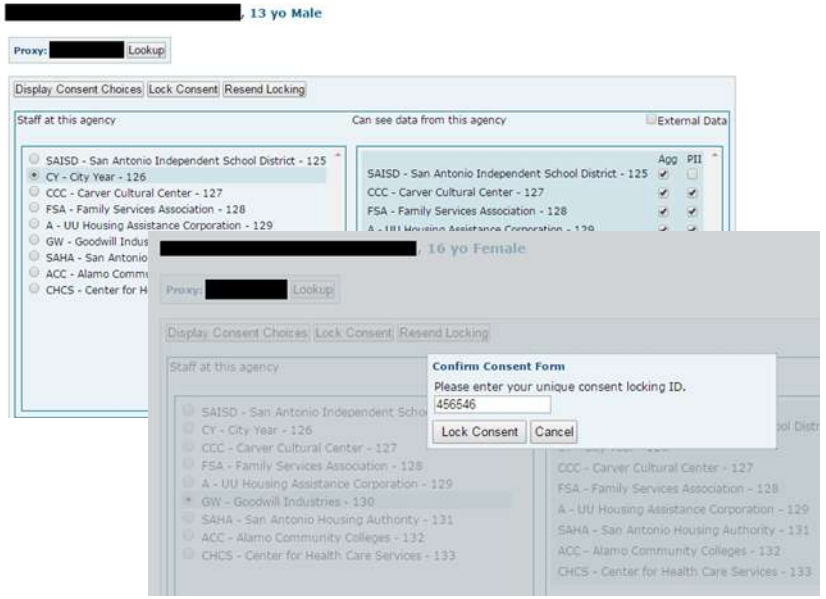
Secure log-on to front end

- User mini-agreement
  Two-part authentication



Person/parent consent

- Point of service
- Granular (issue, agency, PII view, PII move)
- Dynamic
- Locking code for signature

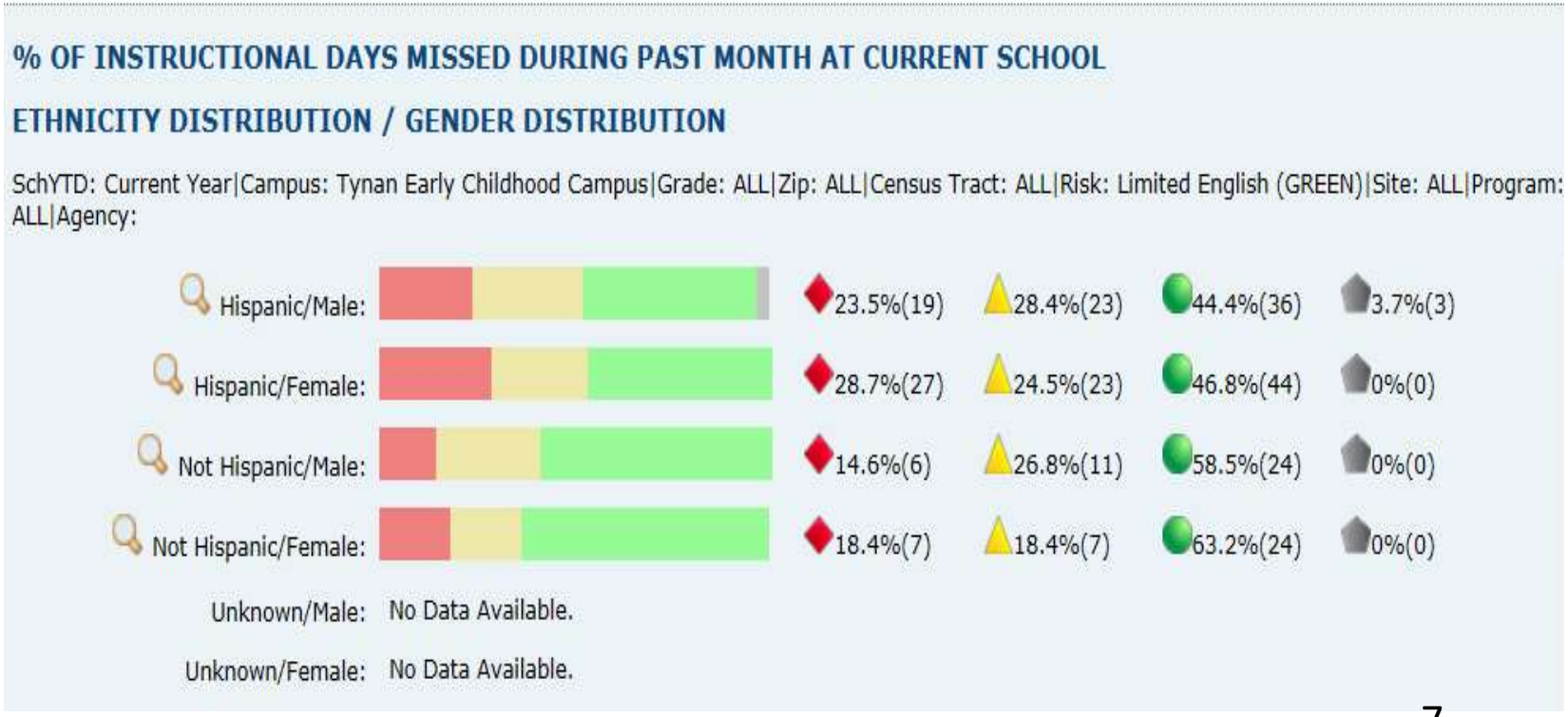


Role-based permissions

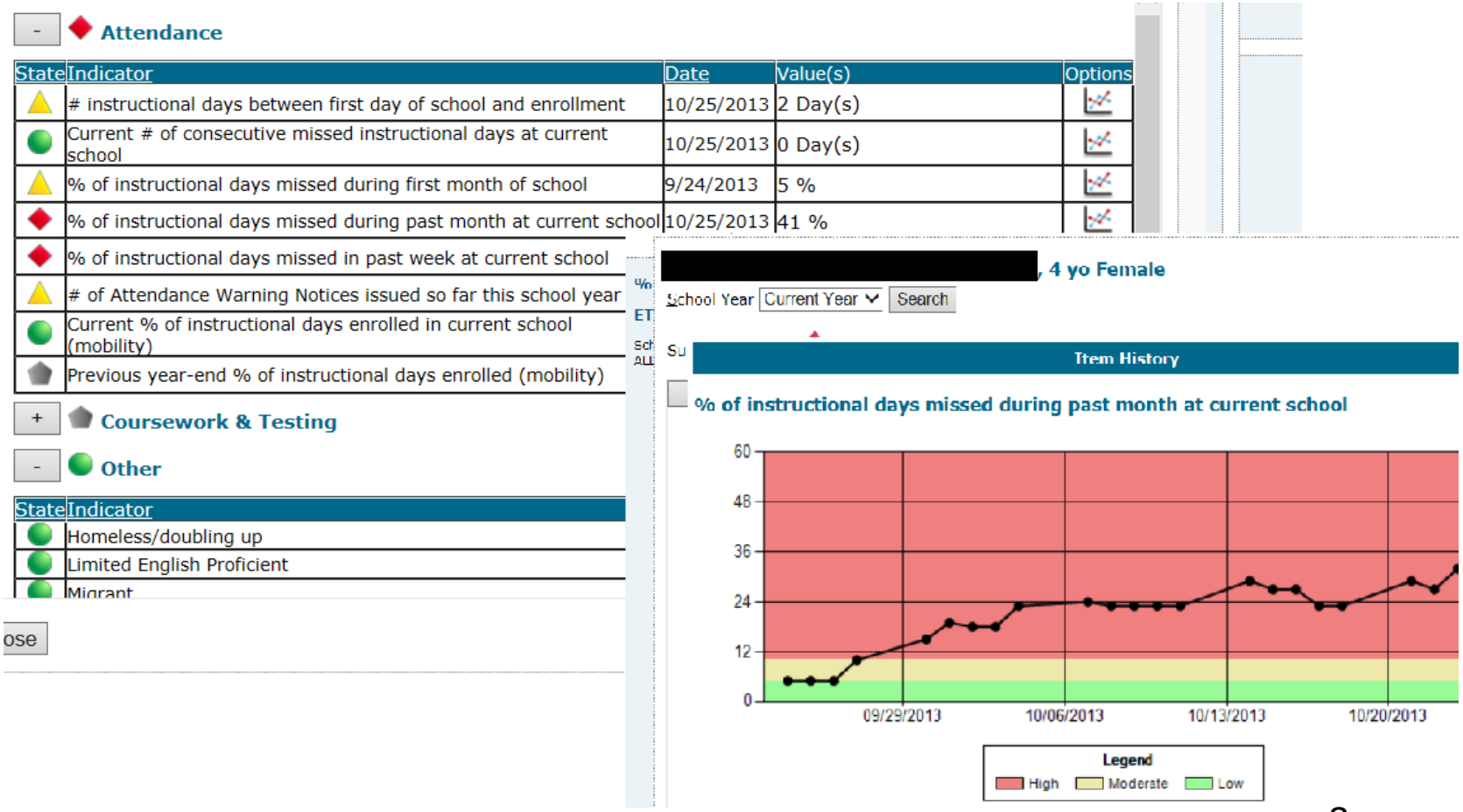
- Data by issue area
- PII vs. aggregate
- Established by agency and by client consent
- Requires central approval

Virtual workstation: extremely restricted data access for on-demand and complex queries

Custom Reports: nested crosstabs with PII drill-down for programmed indicators (expensive!)

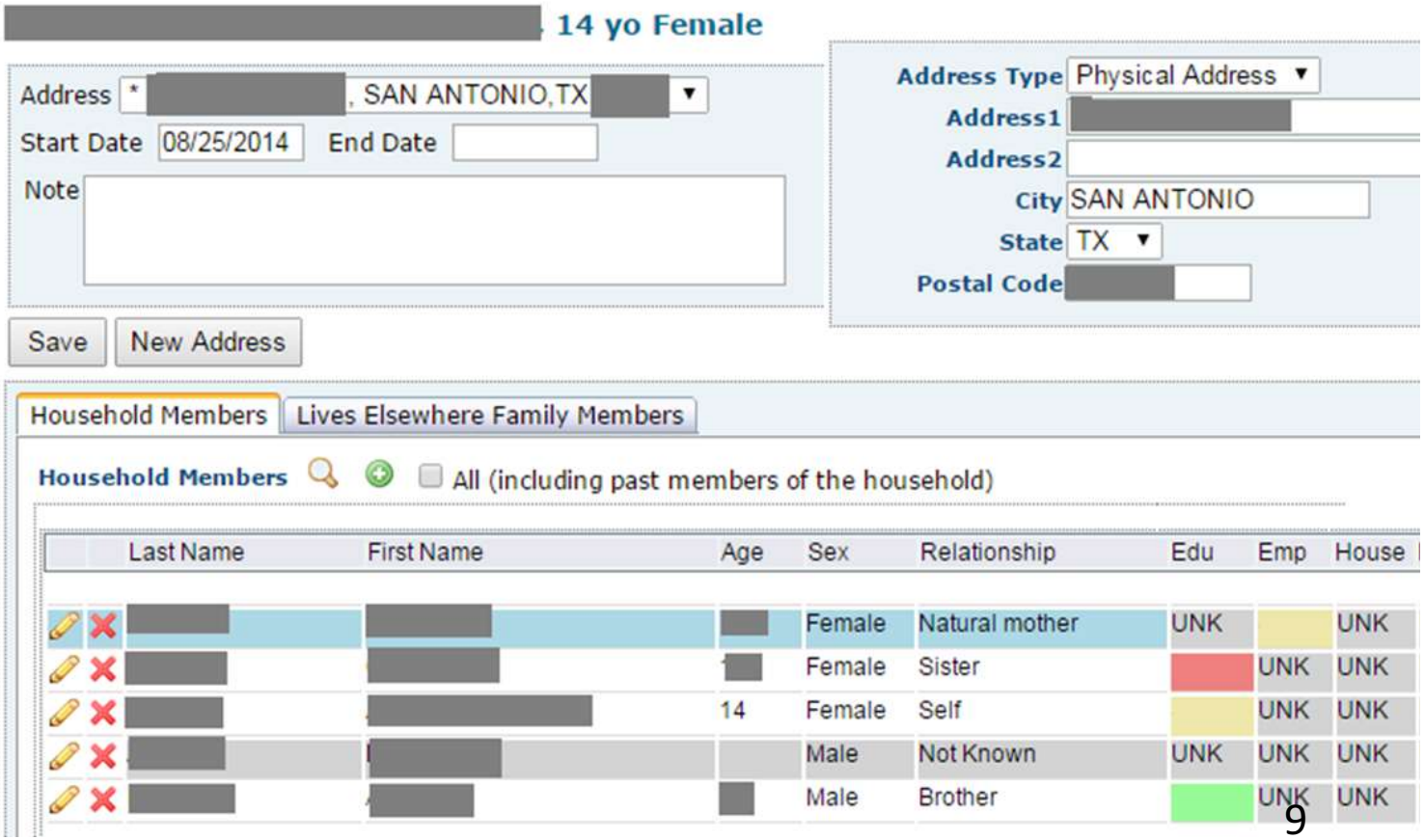


Person Viewer: PII dashboard w/ most recent value and trend for programmed indicators (more expensive!)

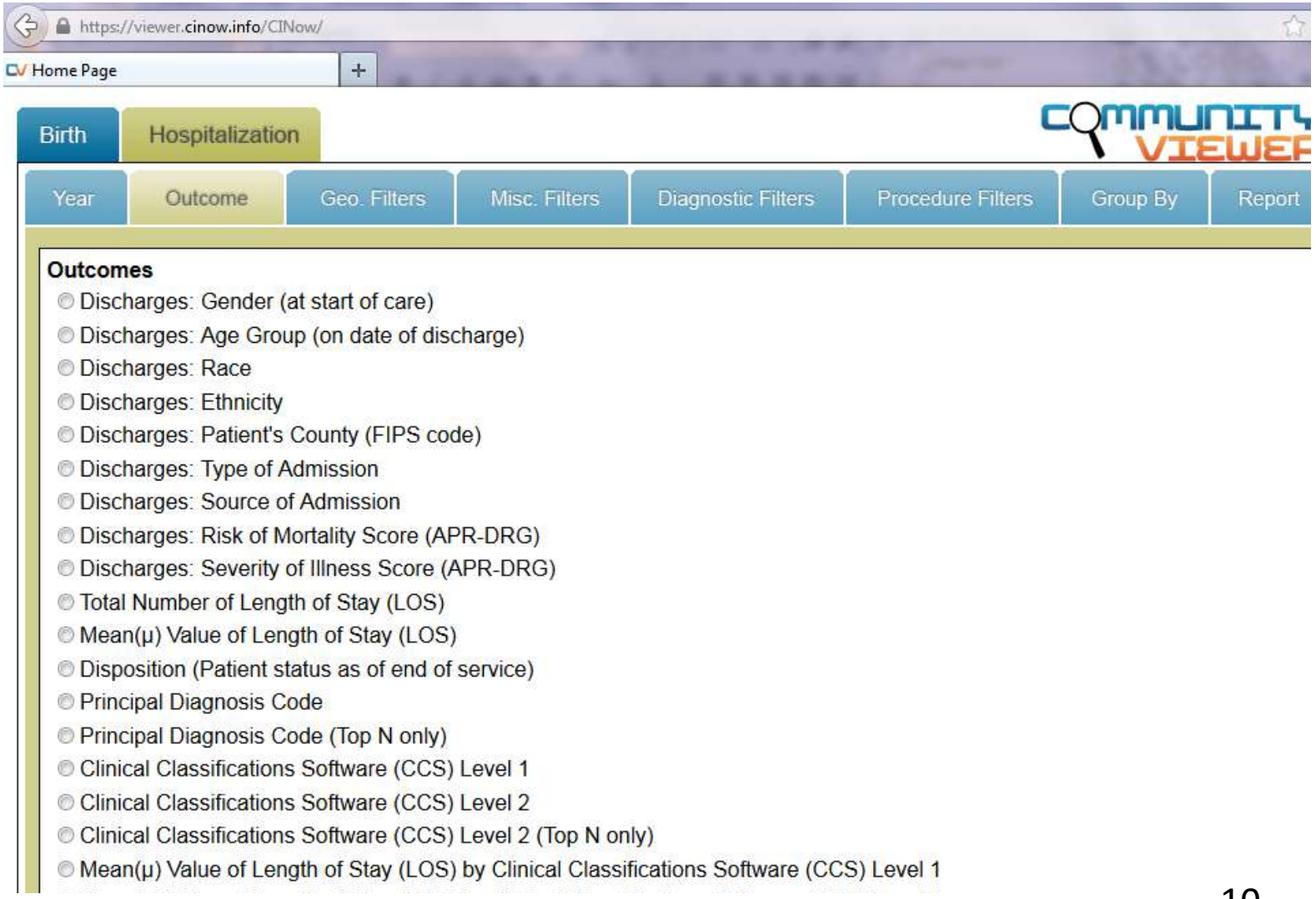


Household/Family Viewer:

- "Household" is physical address + time period
- "Lives elsewhere" like non-custodial parent, FFN caregiver
- Any person can temporarily or permanently be related to any other person (must be keyed in if not extant)

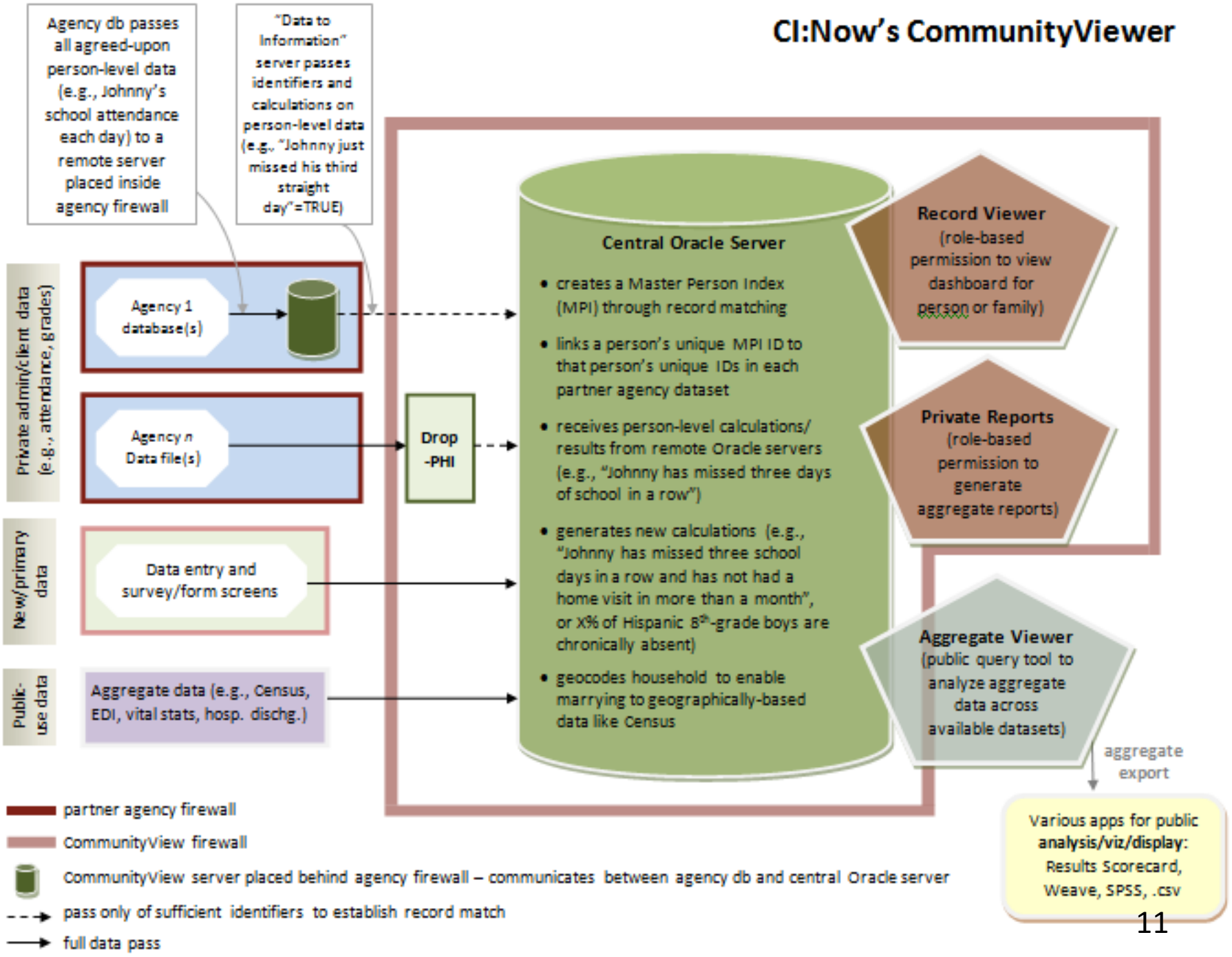


Public reports: will be connected to PII db over time

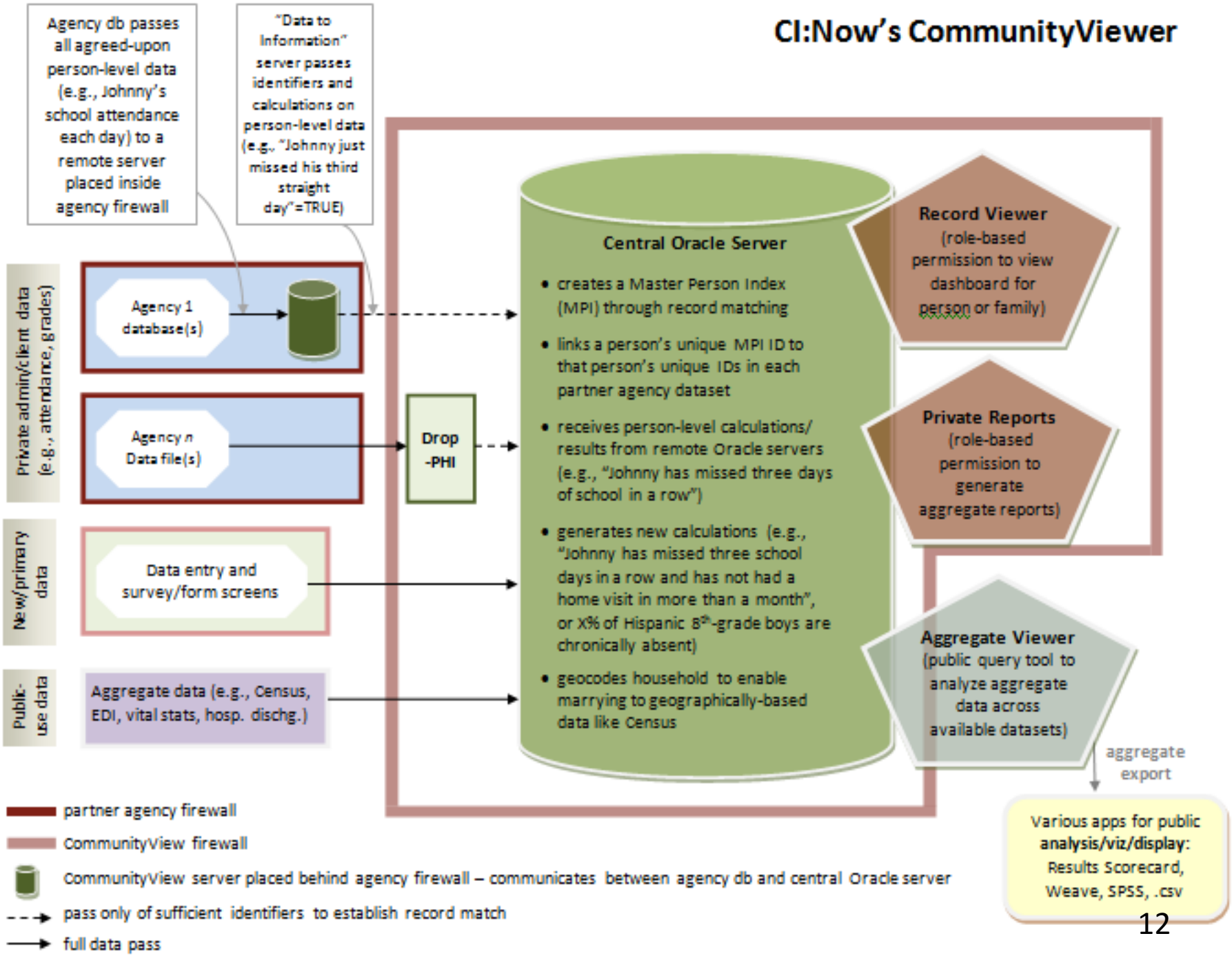


CI:NOW

CI:Now's CommunityViewer



CI:Now's CommunityViewer



Some lessons learned the hard way

Manage *everyone's* expectations, actively and often

- What's possible, how fast, at what cost
- Systematically identify recurring costs triggered by one-time costs
- Full automation of integration is not Holy Grail; integrate manually after QA to start
- Critical that non-tech leadership has someone trusted who can advise on tech issues like time, cost, capabilities

CI:NOW

More lessons learned the hard way

Find some way to get user requirements spec'd out before product is *completely* finished

- Form doesn't always get to follow function because function isn't always well-defined and -understood
- Things change fast; possible that it won't matter what specs ever were
- Revisit specs often and be willing to leave something unfinished

CI:NOW

There weren't any lessons learned the easy way, actually

- Expect reporting/ ad-hoc query needs to crop up quickly, be significant, continue for duration
- Be prepared for possibility of very low data quality
  - Plan for increasing partner data capacity
- Always develop backup plan - Plans A through F *will not* work
- Laugh, have faith, and try to fail forward

CI:NOW

More information

Overview

http://nowdata.cinow.info/CommunityViewer

Public Reports

https://viewer.cinow.info/CINow

Courtney Denton, MPH

Courtney.Denton@uth.tmc.edu