# **COMMUNITYVEWE R** Integrated Data System

May 2015

## Why? ...all the things to all the people

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

## 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

## 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)

## **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

Display Consent Choices L	ock Consent Resend Locking						
Staff at this agency		Can see data fr	rom this agency		1	External Data	
SAISD - San Antonio CY - City Year - 126 CCC - Carver Cultural FSA - Family Services A - UU Housing Assist GW - Goodwill Indus SAHA - San Antonio ACC - Alamo Commy CHCS - Center for H	Independent School District - 125 Center - 127 Association - 128 ance Corporation - 129 Proxy: Lookup:	SAISD - Sar CCC - Carve FSA - Family A - Titl More	n Antonio Independ er Cultural Center - y Services Associati line Assistance Cen 16 yo Female	ent School 127 on - 128 sociation - 1	District - 125	Agg PII <sup>●</sup> 2	
	Danta Constant Change Lock	Convert Date					
	Display Consent Choires: Lock Staff at this agency	Consent Rese	nd Locking Confirm Conser Please enter you	it Form Ir unique	consent locki	ing ID.	
	Display Consent Choices, Lock Staff at this agency SAISD - San Antonio Inde CY - City Year - 126	Consent Rese	nd Locking Confirm Conser Please enter you 456546 Lock Consent	t Form ir unique	consent locki	ing ID.	

PRACTITIC	wer Community Viewer	
🔹 Messages	User Rights	
	Page Rights View Rights	
David Santana	Administrator	Gives the User Administration Functions including User Account Management
Details Entity Rights User Account	Person Lookup	Gives Access to Person Lookup
Education	Person Consent	Gives Access to Person Consent
Employment Secondary Health Education	Single-Person View	Gives Access to Single-Person Checklist Views
L Housing D Education Supports	Multi-Person View	Gives Access to Multi-Person Checklist Views
EDUCADON	Custom Reports	Gives Access to Custom and Standard Reports Pages
	Survey Management	Gives Access to Survey management
	Load User Type template Save as User Type template	6

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

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

### % OF INSTRUCTIONAL DAYS MISSED DURING PAST MONTH AT CURRENT SCHOOL

#### **ETHNICITY DISTRIBUTION / GENDER DISTRIBUTION**

SchYTD: Current Year|Campus: Tynan Early Childhood Campus|Grade: ALL|Zip: ALL|Census Tract: ALL|Risk: Limited English (GREEN)|Site: ALL|Program: ALL|Agency:



NON:IC

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

Indicator	Date	Value(s)	Ontions		
# instructional days between first day of school and enrolln	nent 10/25/2013	3 2 Dav(s)			
Current # of consecutive missed instructional days at curre school	nt 10/25/2013	<sup>3</sup> 0 Day(s)	<u> </u>		
% of instructional days missed during first month of school	9/24/2013	5 %	<u>×</u>		
% of instructional days missed during past month at curren	nt school 10/25/2013	3 41 %	×		
% of instructional days missed in past week at current scho	ool loo		4 vo Female		
# of Attendance Warning Notices issued so far this school y	/ear <sup>%</sup> <u>School Year</u>	Current Year 🗸 Search	, i yo i cindic	-	
Current % of instructional days enrolled in current school (mobility)	Sch Su	•			
Previous year-end % of instructional days enrolled (mobility			Item Histo	οιγ	
renous fear ena vo er mou decionar da jo en enea (mobilita					
Coursework & Testing	//% of in	structional days misse	d during past mon	th at current school	
<ul> <li>Coursework &amp; Testing</li> <li>Other</li> </ul>	60 -	structional days missed	d during past mont	th at current school	
<ul> <li>Coursework &amp; Testing</li> <li>Other</li> <li>Indicator</li> </ul>	60 - 48 -	structional days missed	d during past mont	th at current school	
<ul> <li>Coursework &amp; Testing</li> <li>Other</li> <li>Indicator</li> <li>Homeless/doubling up</li> </ul>	60 - 48 - 36 -	structional days missed	d during past mont	th at current school	
<ul> <li>Coursework &amp; Testing</li> <li>Other</li> <li>Indicator</li> <li>Homeless/doubling up</li> <li>Limited English Proficient</li> </ul>		structional days missed	d during past mont	th at current school	
Coursework & Testing  Other  Indicator Homeless/doubling up Limited English Proficient Migrant	77 % of in 60 - 48 - 36 - 24 -	structional days missed	d during past mont	th at current school	
Coursework & Testing  Coursework & Testing  Other  Indicator  Homeless/doubling up Limited English Proficient  Migrant	77 % of in 60 7 48 - 36 - 24 - 12 -	structional days missed	d during past mont	th at current school	
Coursework & Testing  Other  Indicator Homeless/doubling up Limited English Proficient	9% of in 60 - 48 - 36 - 24 - 12 -	structional days missed	d during past mont	th at current school	
Coursework & Testing  Coursework & Testing  Other  Indicator  Homeless/doubling up Limited English Proficient  Migrant	7.7 % of in       60 -       48 -       36 -       24 -       12 -       0 -	structional days missed	d during past mont	th at current school	10/20/20
Coursework & Testing  Other  Indicator Homeless/doubling up Limited English Proficient Migrant	77 % of in 60 - 48 - 36 - 24 - 12 - 0 -	structional days missed	d during past mont	th at current school	10/20/20

## **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)

	14	yoremate	1		*****		
ddress *	, SAN ANTONIO,TX End Date	•		Address Type Phy Address 1	sical Addr	ess 🔻	
Note				City SAN	ANTONI	0	
				State TX	•		
				Postal Code			
Household Members	Lives Elsewhere Family Me	embers					
Household Members Household Members Last Name	Lives Elsewhere Family Me Q O All (including First Name	embers past members Age	of the hou Sex	usehold) Relationship	Edu	Emp	House
Household Members	Lives Elsewhere Family Me Constraints and Constraints and Con	past members Age	of the hou Sex Female	usehold) Relationship Natural mother	Edu	Emp	House
Household Members	Lives Elsewhere Family Me	past members Age	of the hou Sex Female Female	usehold) Relationship Natural mother Sister	Edu	Emp	House UNK UNK
Household Members	Lives Elsewhere Family Me	past members Age	of the hou Sex Female Female Female	Relationship Natural mother Sister Self	Edu	Emp UNK UNK	House UNK UNK UNK
Household Members	Lives Elsewhere Family Me	past members Age	of the hou Sex Female Female Female Male	Relationship Natural mother Sister Self Not Known	Edu UNK UNK	Emp UNK UNK UNK	House UNK UNK UNK UNK

## Public reports: will be connected to PII db over time

Home Page	// viewer.cinow.info/ CliNov	+	-		and the second	TAL C	-0-0-
Birth	Hospitalization				C		
Year	Outcome	Geo. Filters	Misc. Filters	Diagnostic Filters	Procedure Filters	Group By	Repo
Outcon	nes						
O Disc	harges: Gender (at	start of care)					
Disc	harges: Age Group	(on date of disc	harge)				
Disc	harges: Race						
Disc	harges: Ethnicity						
Disc	harges: Patient's Co	ounty (FIPS coo	le)				
Disc	harges: Type of Adr	mission					
Disc	harges: Source of A	dmission					
Disc	harges: Risk of Mor	tality Score (AF	R-DRG)				
Disc	harges: Severity of	Illness Score (A	PR-DRG)				
Tota	I Number of Length	of Stay (LOS)					
© Mea	in(µ) Value of Length	h of Stay (LOS)					
Disp	osition (Patient stat	us as of end of	service)				
© Prine	cipal Diagnosis Cod	e					
© Prine	cipal Diagnosis Cod	e (Top N only)					
Clini	ical Classifications S	Software (CCS)	Level 1				
Clini	ical Classifications S	Software (CCS)	Level 2				
Clini	ical Classifications S	Software (CCS)	Level 2 (Top N or	ıly)			
Mea	n(µ) Value of Length	h of Stay (LOS)	by Clinical Classi	fications Software (CC	S) Level 1		
							10





## 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

## 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

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

## More information

Overview

http://nowdata.cinow.info/CommunityViewer

Public Reports

https://viewer.cinow.info/CINow



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