Community Information Exchange SUMMIT

Client Empowerment: Engaged Care through Connected Records

Karis Grounds
2-1-1 San Diego

Susan Millea, PhD
Children's Optimal Health

Melissa Moorehead
All In: Data for Community Health

children's optimal health

Client Empowerment: Engaged Care through Connected Records

Susan Millea, Ph.D.

Children's Optimal Health

San Diego 211 Community Information Exchange Summit

San Diego, California

April 24, 2019

www.cohtx.org smillea@cohtx.org

NNIP NATIONAL NEIGHBORHOOD INDICATORS PARTNERSHIP

CONTEXT: The BIG Vision
Build a Community Data Ecosystem for Children

- **Health care systems**: struggle to coordinate care and engage patients and care givers
- **Education systems**: struggle to coordinate services for students and engage parents/families
- Understanding child well-being involves health, school systems, social supports, equity issues

- **How do we leverage advancements in technology and communications to create an integrated data ecosystem?**

children's optimal health

Community Data Ecosystem for Children: Multiple cross-sector collaborative projects

- Early Childhood Results Count!
  - Early identification of children with developmental delay, linkage to appropriate care
    - Closed loop referral system
    - Medical providers, Early Childhood providers, 211 UWATX, Aunt Bertha
  - STATUS: Addressing MOA and consent issues, data gov, planning for pilot
- **STORY App**
  - **Parent/patient-centric integrated system for children with medical complexity**
  - **Value based health care**
  - **STATUS: Being deployed, identifying superusers**
- Community School Model for a Campus-Coordinated Health System
  - Health equity challenges impact school success
  - Wrap around family services, school health, mental health, FQHC Clinics
  - STATUS: Concept submitted for review

Community Information Exchange

Participant Portal

Community Information Exchange
Core Components

Network Partners

Collective approach with standard Participation Agreement, Business Associates Agreement and participant consent with shared partner governance, ongoing engagement, and support.

Shared Language (SDoH)

Setting a Framework of shared measures and outcomes through 14 Social Determinants of Health Assessments and a Risk Rating Scale: Crisis, Critical, Vulnerable, Stable, Safe Thriving

Bidirectional Closed Loop Referrals

Updated resource database of community, health, and social service providers. Ability to accept/return referrals and to provide outcomes and program enrollment.

Technology Platform and Data Integration

Technology software that integrates with other platforms to populate an individual record and shapes the care plan. Partners access the system. System features include care team communication feeds, status change alerts, data source auto-history and predictive analytics.

Community Care Planning

Longitudinal record with a unified community care plan that promotes cross-sector collaboration and a holistic approach.

Community Information Exchange

Community Care Planning

Client Record Sample

Client Profile

- Demographic and important information about the client

Domains

- Examples like Housing, Food & Nutrition,
- Categorization of Needs (SDOH) & Risk Level
- Shared Assessments and Values across agencies

Care Team

- Case Managers working with client across agencies
- Contact Information

Referrals & Program Enrollment

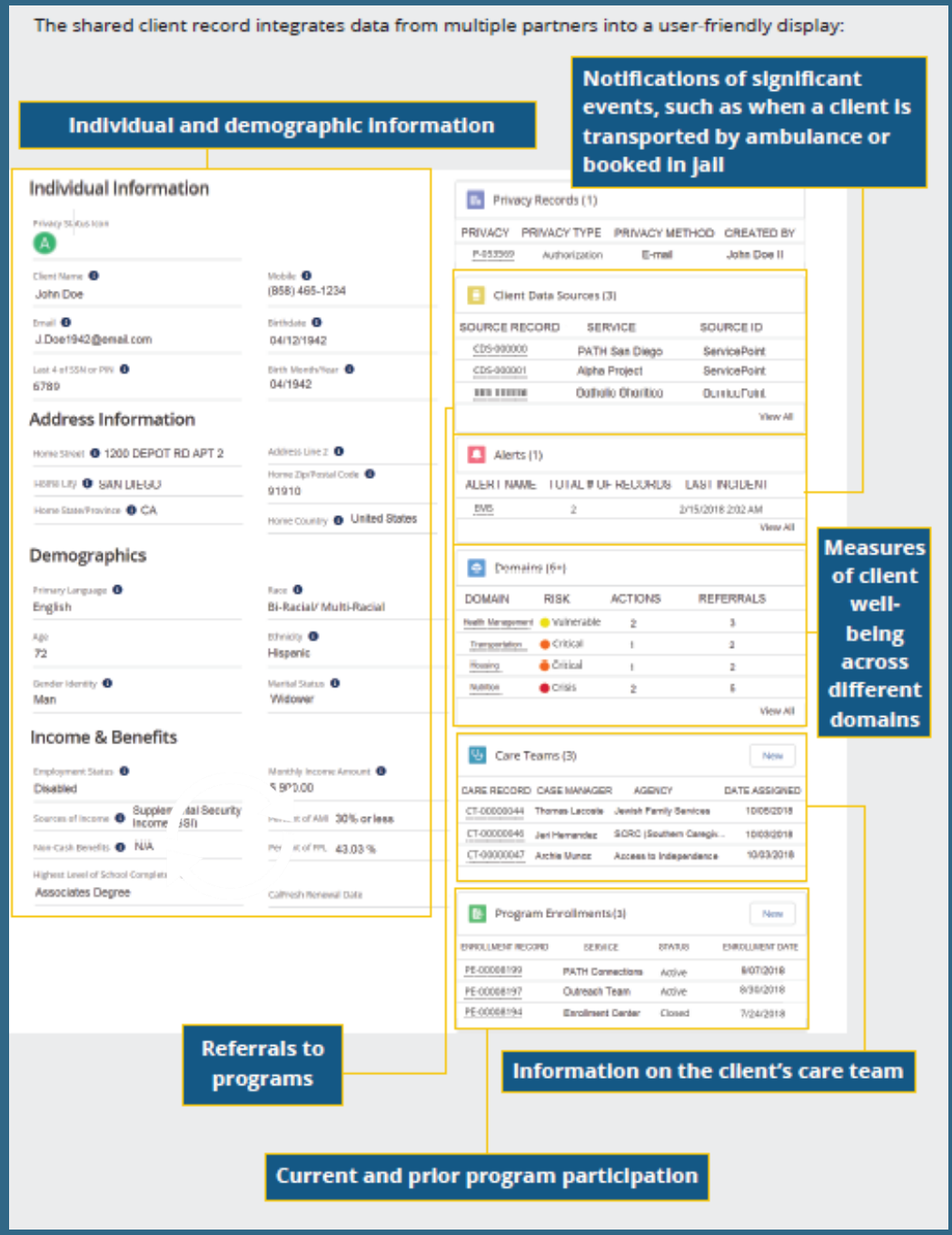
- Agencies or programs client is referred
- Connection to Services

Alerts

- Notification of emergency services & jail
- Ability to notify Care Team Members of changes

Feed

- Ability to communicate with Care Team members (twitter-like feed)



211 SAN DIEGO/IMPERIAL

Community Information Exchange

children's
optimal health

People and Process

children's optimal health

Why build the STORY App?

Physicians: Hospitals, Specialty Clinics

Durable Medical Equipment

Home Health Nursing

PT/OT/Speech Therapists

Texas Children's Health Plan

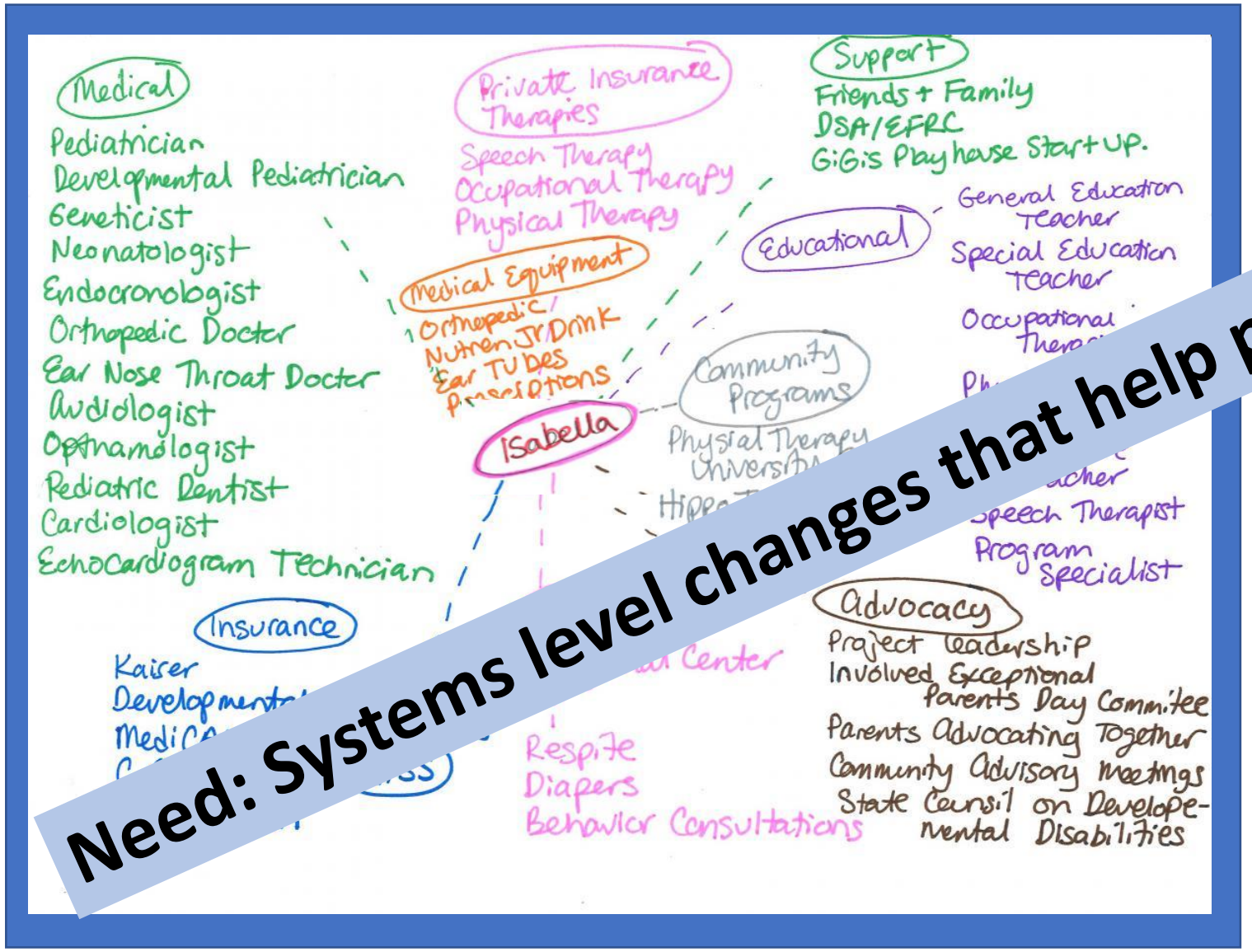
Insurance Providers

School Nurses

Photos: Physiciansnews.com, phoenixhomehc.com, stcharlesrehabilitation.chsli.org, varietyst.org, medium.com, texaschildrenshealthplan.org

children's optimal health

Why include the patient perspective?



Need: Systems level changes that help people, not just providers

Parent Identifies

11 Systems

(not just hospitals and clinics)

44 Providers/Programs

children's optimal health

How did you build the STORY App?

Theresa Neil
STRATEGY + DESIGN

Knowing Users vs Speaking to Users

Theresa Neil

You probably do know your users, so work that relationship during the UX (re)design process. Here's 3 good times to talk:

CLOUD FOREST SOLUTIONS

Discovery→Strategy→Design

Prototype→Test→Revise→Pilot/Deploy

children's optimal health

What were key successes/challenges?

Successes

- Desktop
- Mobile
- DPT
  - DME, Nurse, OT/PT
- Shared Care Plan
- Child's Story
- Data Core
- Utilization Data
  - Value based care

The University of Texas at Austin
Dell Medical School

Challenges

- Bureaucratic complexity
  - Needing national approvals
  - Multiple committees
  - Inertia
- Multiple Tech Systems
  - Hospital EMR
  - Clinic EMR(s)
  - Home Nursing
  - Durable Medical, PT/OT
- Business negotiations, trust
  - Small, facile developer
  - University data backbone
  - Research Medical School

People and Processes

Community Information Exchange

Importance of Participant Portal

- Person-Centered Model
- Community-owned data (ability to consent and revoke)
- Tracking who is helping me (Referrals, Programs, Care Teams)
- Empowerment (access and collection)

Community Information Exchange

Collective Development

Feedback from Community Partners (on behalf of clients/patients

- System wide Person-Centered
- Helpful for uploading/storing documents
- Ability to choose to create profile and consent
- Information requested vs. needed

Feedback from Participants

- User interface-easy to use, looks good, intuitive
- Support themselves or others within network
- Update own information
- Too much information (asks for too much)
- Track services they have access
  - Examples of testing sites: Library, Mental Health & Addiction Services, Senior (Grandparents Raising Grandchildren)

Chief Compliant:

- How much is too much?
- Expectations different in clinical vs. social services
- User Interface/Utilization

Success:

- True Client Empowerment and Access to Information
- Shared Communication
- Limited Patient Portal for social services vs. EHR/medical

Community Information Exchange

children's optimal health

Technical and Legal Development

children's optimal health

What is the STORY App?

- It is ***NOT*** an Electronic Medical/Health Record, HIE, CIE

- STORY is a **platform independent solution**
  - **Entities continue to use their existing record systems**
  - Creates a 'Curated STORY' of the person
    - Collating essential details from across key persons involved in care
    - STORY view is tailored to user needs (MD, Nurse, Therapist, Parent)
    - Best practice guidance via physician order sets, care plans
  - Parent controls consent, who has access
  - Holistic time-series view of the patient's health
  - Aggregates utilization data across patient, provider, site, etc.
    - Essential for developing value-based health care

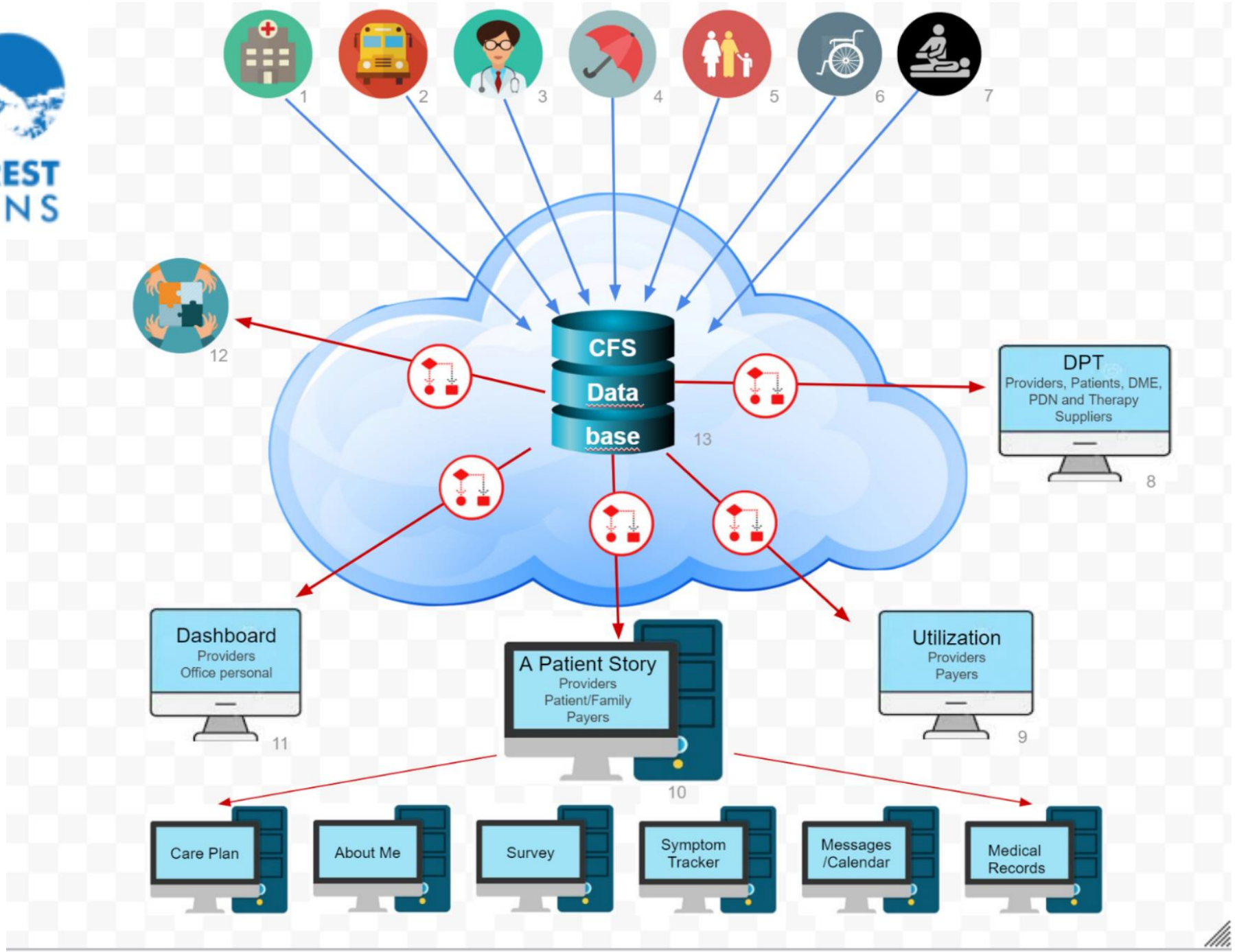
children's optimal health

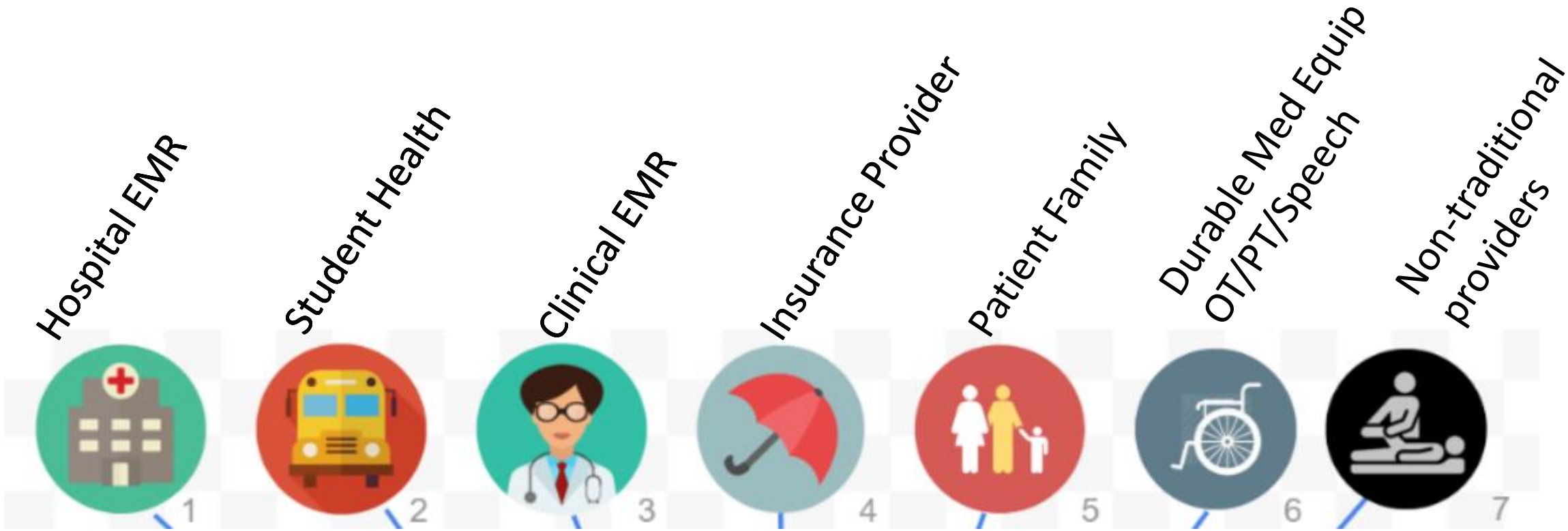
Technical Development and Data Governance

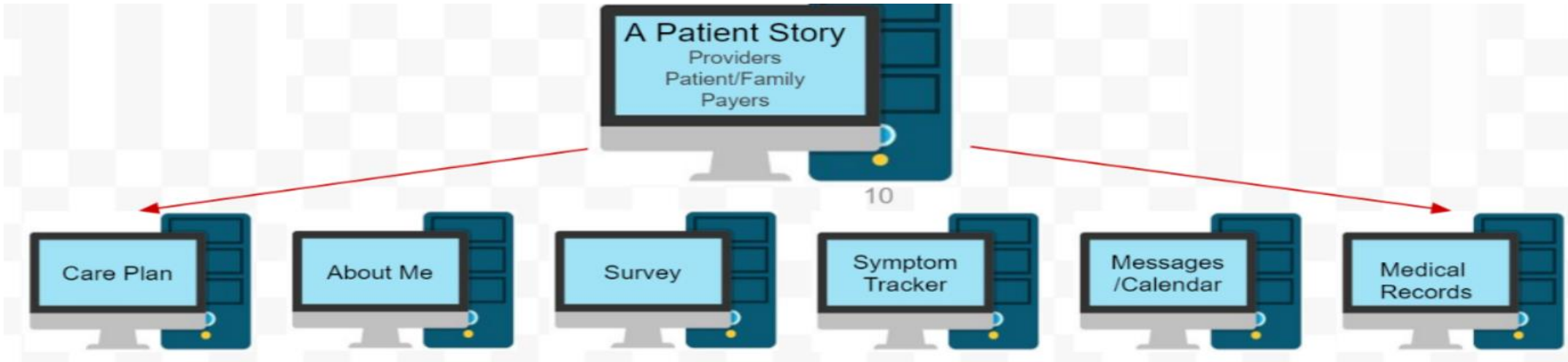
The University of Texas at Austin
Dell Medical School

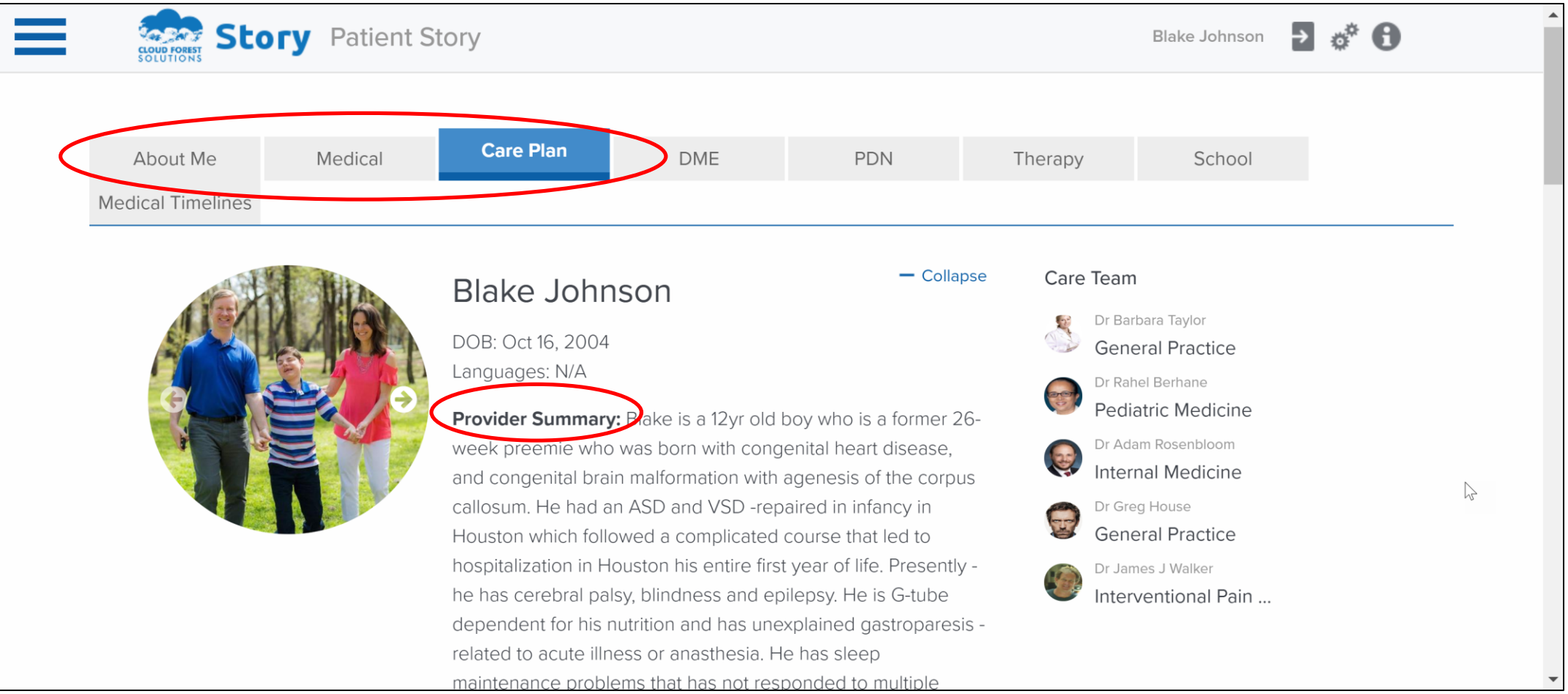
- Innovative, facile developer
  - Intellectual Property protection
  - Patenting
- Based on Fast Health Interoperability Resource (FHIR)
- Application Programming Interfaces (APIs)
- Ascension/Seton (national health system)
  - Required multiple reviews/approvals from local to national
  - Hospital and Clinic EMRs are different
- Trusted 3rd party for back end (Dell Medical School)
  - BAAs, DUAs
- Data Governance issues TBD

CLOUD FOREST SOLUTIONS

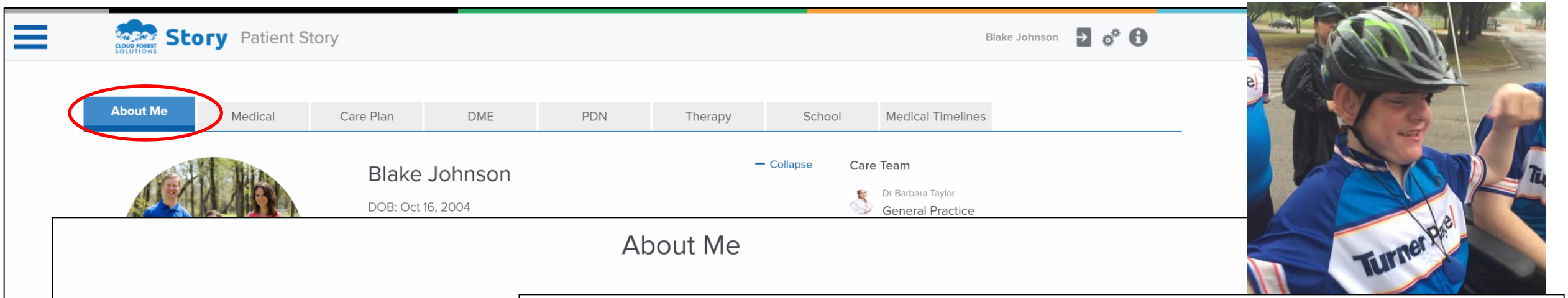



Hospital EMR
Student Health
Clinical EMR
Insurance Provider
Patient Family
Durable Med Equip
OT/PT/Speech
Non-traditional
providers
1
2
3
4
5
6
7

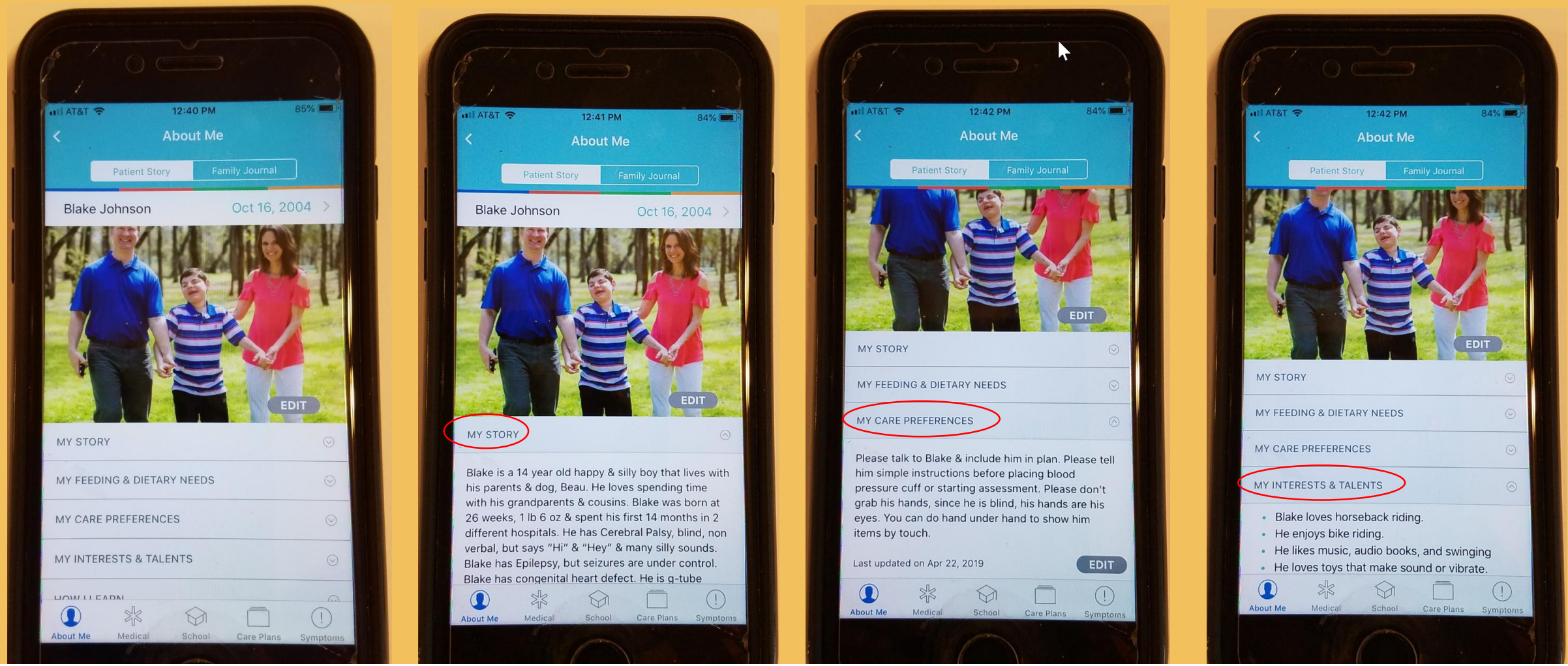

A Patient Story
Providers
Patient/Family
Payers
10
Care Plan
About Me
Survey
Symptom
Tracker
Messages
/Calendar
Medical
Records



- 26-week premie
- Congenital heart disease
- Congenital brain malformation
- Cerebral Palsy
- Blindness
- Epilepsy
- G-tube dependent



- Please talk to Blake & include him in plan.
- Please don't grab his hands, since he is blind, his hands are his eyes. You can do hand under hand to show him items by touch.
- Please tell him simple instructions before placing blood pressure cuff or starting assessment.
- Blake says Hi/Hey, uses happy/unhappy sounds; He is learning 3D symbols for Go, Stop, Like
- He pushes or throws items for refusal.
- He bites hands when excited or frustrated. We use chewelry or toys for re-direction.



- This is REALLY Great for kids with multiple disabilities! I carry a notebook to all appointments that's hard to keep up to date. Doing this on my phone would be so much easier.
- I have providers in different cities/health systems. I want to include all providers to keep them all informed.
- I'd like to be able to print pages from my phone. Forms in medical offices don't have enough space to write all hospitalizations, meds, etc. I could print the page and they would have it.
- Ability to add video clips is great. Then the psychiatrist/psychologist can see the behaviors I describe.

Technical and Legal Development

Community Information Exchange

Technology/Building Portal

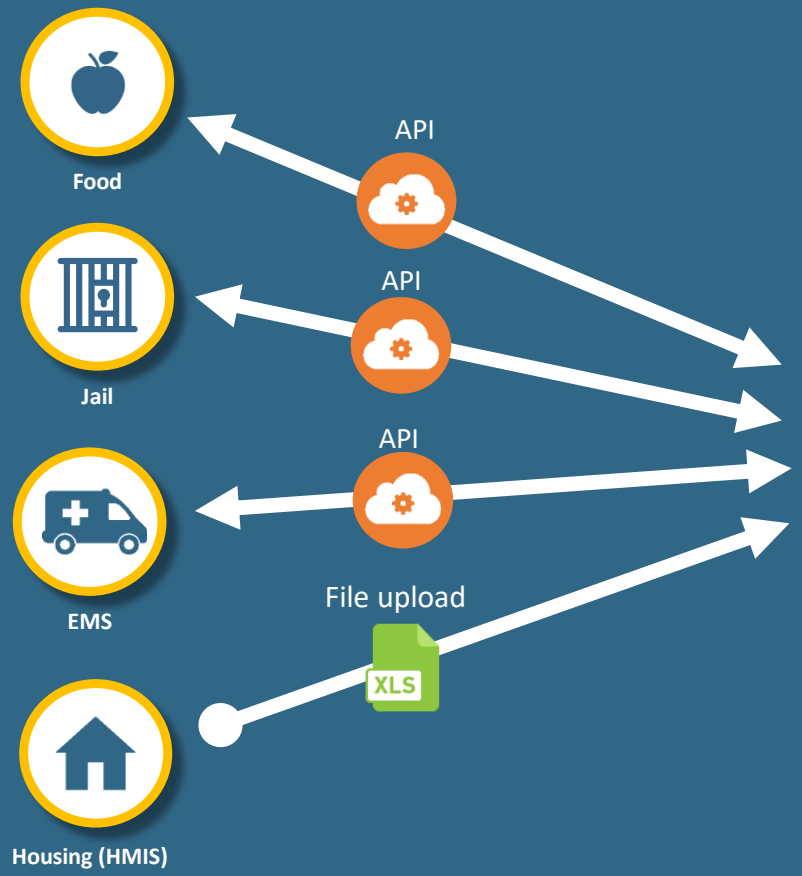
Goal: Access, empowerment and participant involved with their care

- View into the CIE with ability to set-up account on their own
- Aggregates both social and medical information
- Holistic view of access to services, resources and people
- Interface pulls select data from full community portals
- Provide insights from their perspective

Community Information Exchange

Technology Platform and Data Integration

Technology Platform



MDM

Master Data Management

- Detects and merges duplicate records
- Ensures the accuracy, completeness, and consistency of multiple domains of enterprise data

informatica

CIE
shared client record
salesforce

ETL

Extract Transform Load

1. Reads data from a database
2. Converts the data for the new database
3. Loads into the new database

Alerts

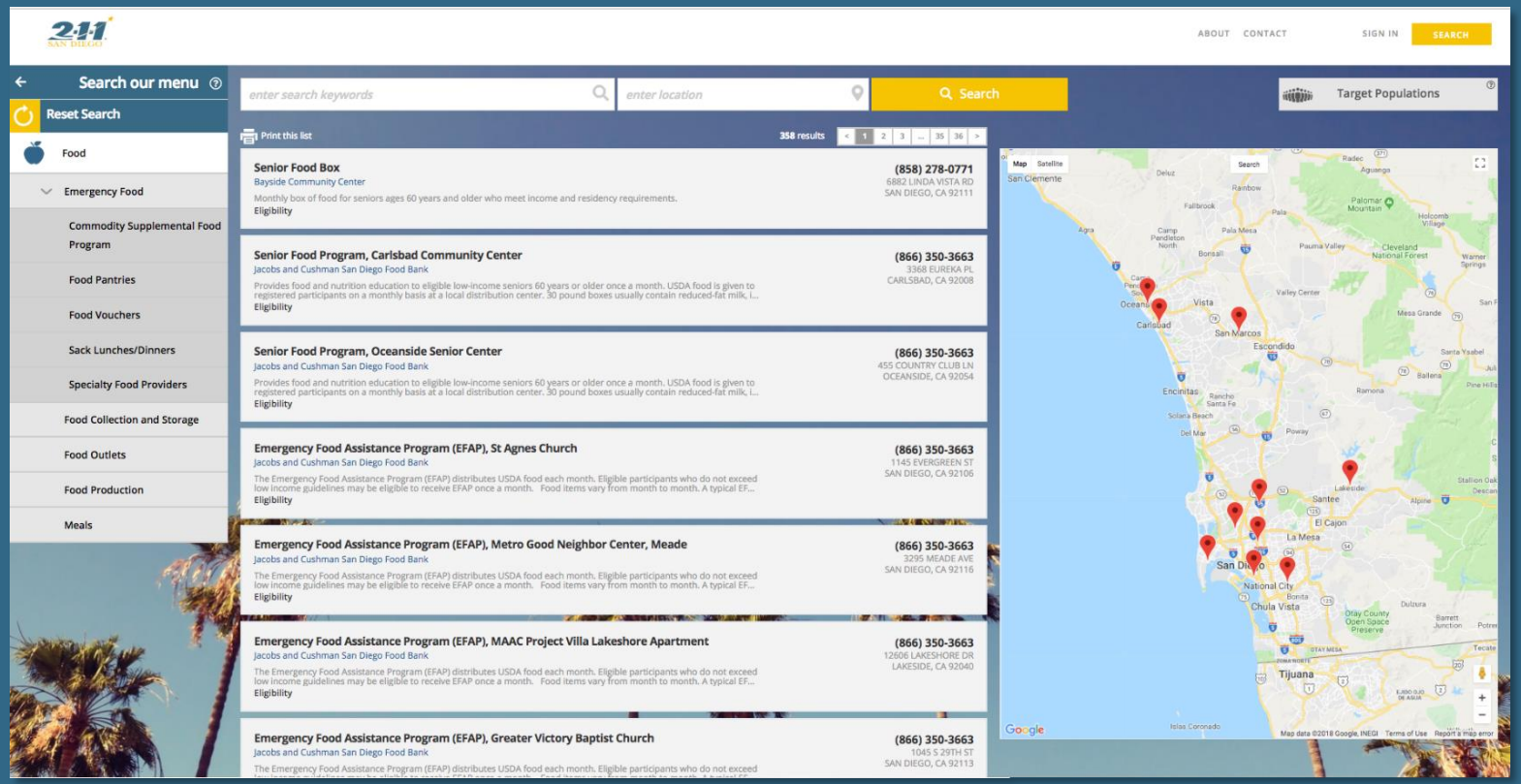
Single Sign on

Community Information Exchange

Resource Database and Bi-directional Referrals

Resource Database

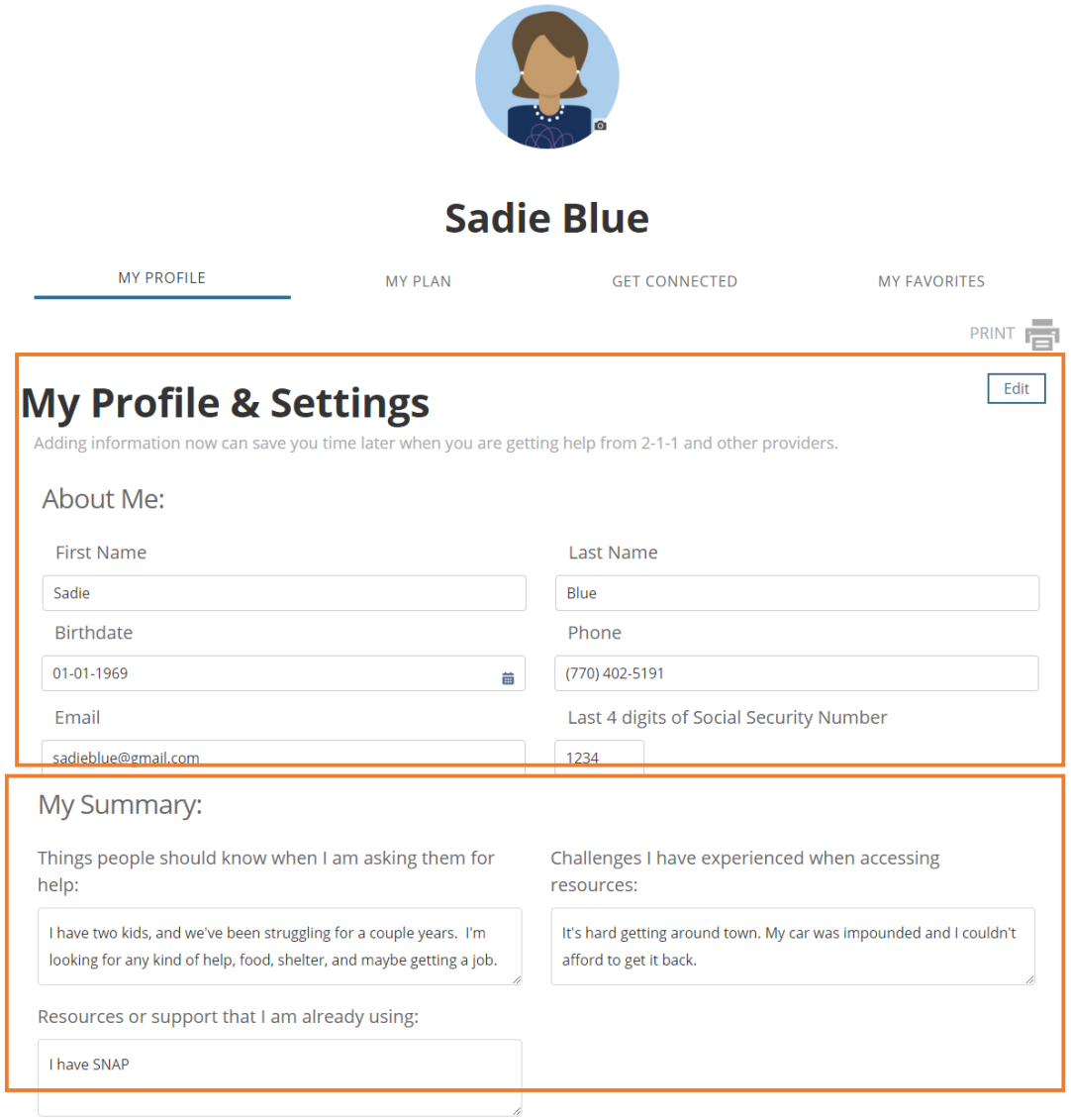
Hub for social and health sites and providers



- Shared taxonomy language for referrals (AIRS)
- Dedicated resource staff
- Regular updates made to resources
- Standards to listings and requirements
- Inclusion/Exclusion Criteria
- Linked to health conditions
- Tracks resource availability and unmet needs

Community Information Exchange

Participant Portal



Pulls relevant information from Community Portal to Patient Portal

- Only specifically identified fields
- Reformatted language to be personal and relevant

My Profile & Settings

- Who you are?
- Demographics and Contact Information

My Summary

- Ability share thing about myself
- Things I need help or support with
- Challenges

Community Information Exchange

My Plan

Care Team

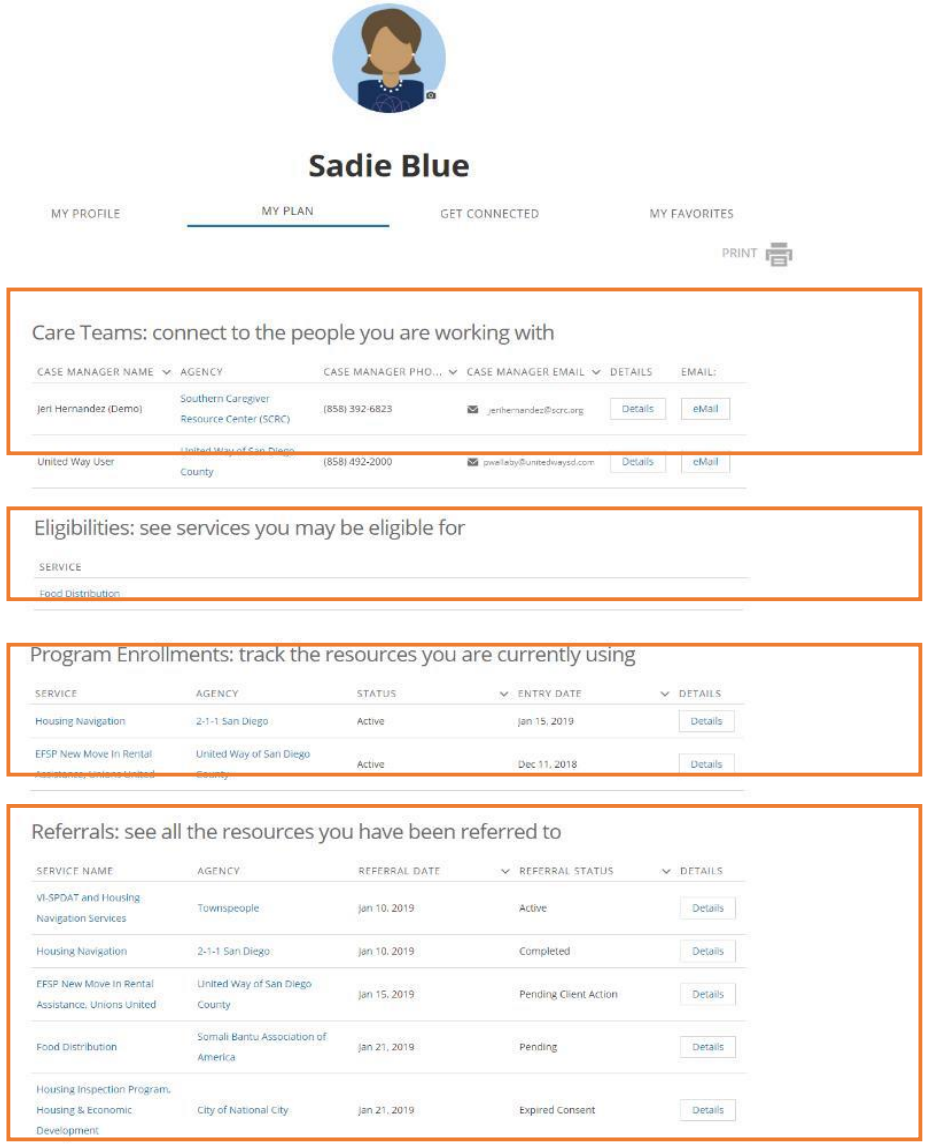
- Case Managers who I am working with

Referrals & Program Enrollment

- Agencies or programs client is referred
- Connection to Services

Eligibility

- Programs I may be eligible for



Community Information Exchange

My Favorites

*Use media features that are to familiar to participant
"Facebook like or favorite"

Resources I like:

- Ability to Favorite programs
- Learn more about eligibility
- Empowerment

Sadie Blue

MY PROFILE | MY PLAN | GET CONNECTED | MY FAVORITES

Career Horizons for Young Women
Just In Time for Foster Youth
Supports youth who are pursuing a GED high school diploma and those who are pursuing vocations: police work, cosmetology, welding, graphic design, plumbing, and teaching. Also provides needs such as transportation, in addition to career exploration and networking opportunities with individuals within the community. Career Horizons for You
Eligibility

(760) 505-6647
4560 ALVARADO CANYON RD STE 2G
SAN DIEGO, CA 92120
Remove from Favorites

Senior Nutrition, Brawley Senior Center
Catholic Charities
Provides lunch to seniors in a congregate meal setting. Transportation to the congregate meal site is also available in El Centro, Brawley, Calexico, and Salton City.
Eligibility

(760) 353-2748
575 J ST
BRAWLEY, CA 92227
Remove from Favorites

National School Lunch Program
United States Department of Agriculture
The National School Lunch Program (NSLP) is a federally assisted meal program operating in public, nonprofit, and private schools and residential child care institutions. It provides nutritionally balanced, low-cost or no-cost lunches to children each school day.
Eligibility

(800) 952-5609
Remove from Favorites

Community Information Exchange

children's
optimal health

Use, Outcomes, Next Steps

children's optimal health

Use, Outcomes, Next Steps

Front End Implementation

Use and Outcomes

- Desktop is deployed
  - Clinicians can use
  - Cost savings from Durable Medical Equipment
- Mobile version moving from pilot testing to full deployment
  - Positive responses from pilot parents

Next Steps

- 10 Superusers targeted among parents, buddy system
- Assess what will make mobile use ‘sticky’, tool for daily use

children's optimal health

Use, Outcomes, Next Steps

Back End: Data Core/Dell Medical School

Use and Outcomes

- Cloud Forest Data Environment fully functioning
- Data mirrored in Dell Medical School Data Core

Next Steps

- Enhance data flows into DMS Data Core
- Add EMR Aggregators, extends EHR systems that can be included
- Address Data Governance for research, community learning

children's optimal health

Use, Outcomes, Next Steps

Insights: Utilization and Care Transformation

Use and Outcomes

- Seeking to give parent/caretaker equivalent status with medical team
- Payer data is incorporated
- Utilization analyzed by patient, provider, site, clinic, procedure

- **Next Steps**
- Improving turnaround time in accurate payer data (current 2 month delay)
- Cost analysis
- Value-based care

Use, Outcome and Next Steps

State of Participant Portal

Use and Outcomes:

- Still in demo site, testing with more participants before launch
  - Homeless/Housing Instability is crucial
- Meaningful Launch-ensure buy-in

Next Steps:

- Data Analytics on Utilization (consents and data sharing)
- Evaluation on Client Empowerment and impact on care by using app

Thank You!

ALL IN DATA FOR COMMUNITY HEALTH

Podcast link

https://www.allindata.org/resources/podcast-designing-a-family-centered-care-plan-for-children-with-special-needs-in-austin-tx/

Dr. Susan Millea (Left) and Dr. Rahel Berhane (Right)

Thank you!

Karis Grounds
Vice President of Health and Community Impact
kgrounds@211sandiego.org

Community Information Exchange