

The L.A. Trust for Children's Health Data xChange

**Measuring the impact that health has on a child's
ability to succeed in school**

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About The L.A. Trust



The L.A. Trust for Children's Health holds a vision where every student is healthy and has a fair shot at succeeding in school and life.

We focus on bridging health and education resources to alleviate preventable health disparities in children that, if unaddressed, create a burden of chronic illness that follows them into adulthood, such as diabetes, hypertension, obesity, asthma, heart disease, and cancer.

The L.A. Trust for Children's Health supports school-based health centers and the school districts they serve in their cause to make health care easy to access. Going to the doctor is hard if you have to take time off work or school, find transportation, or deal with language and cultural barriers -- but with school-based health services, getting your child to a doctor is as simple as getting your child to school.

About the Data xChange

The L.A. Trust for Children's Health Data xChange is the nation's only provider of reporting and analytics solutions that measure and track the impact that children's health has on academic success



We care about helping schools, federally qualified health centers (FQHCs), and insurers identify and respond to children's health issues that stand in the way of education and a better life.

Who we serve



Health Clinics

- We give FQHCs access to a broader set of data for research and analytics that goes beyond their own electronic health record (EHR) system.
- Our insights help drive best practices for school-based health centers and help FQHCs obtain more grants.



Schools

- We give schools actionable insights on health issues that impede attendance, grades, and graduation.
- Our data help schools better target health programs, optimize budgets, and allocate resources better.



Researchers

- We provide research ready de-identified longitudinal data sets on health and academic outcomes.
- Our data sheds light on health equity with demographic disparities.



Policymakers

- We have a turnkey technology solution.
- It is interoperable with other systems for frictionless cross-sector collaboration.
- Our insights inform policy decisions and our reporting platform measures it.



Health Plans

- We give insurers clear and specific ways they can impact education as a social determinant of health.
- Educated people are healthier and cost less to insure. We identify patient-level health issues that stand in the way of getting an education.

How the Data xChange works

The Data xChange:

- **De-identifies records in a way that still allows us to match data across FQHCs, schools, and insurers.**
- **Integrates de-identified, person-level data at the click of 3 buttons regardless of the EHR or source system**

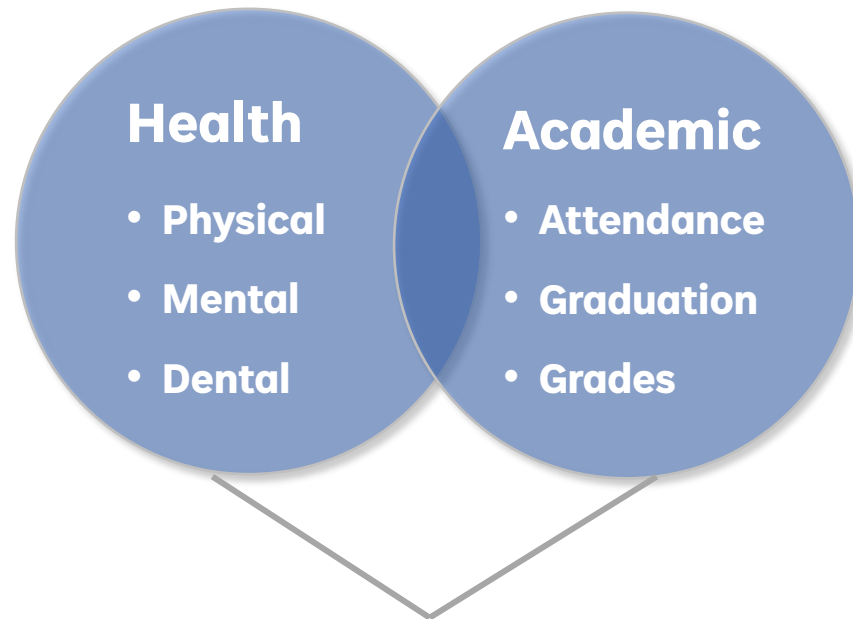


Traditionally there has been limited integration of health and education records because HIPAA and FERPA (Family and Educational Rights & Privacy Act) prevent the sharing of identifiable data.

We created a patent-pending technology solution which eliminates this obstacle.

Our unique data

The combination of health and academic outcomes is what makes our data unique



The L.A. Trust Data xChange

Intersection of Health + Academics. We have outcomes-based data that shows meaningful connections between health and a student's attendance, graduation, and grades.

Importance of Attendance Data. Studies have shown that kids who are chronically absent are less likely to graduate, and kids that do not graduate are 8 times more likely to wind up in jail. The average cost to incarcerate someone in California is \$160,000 per year and the average cost to educate a child is \$24,000 per year.

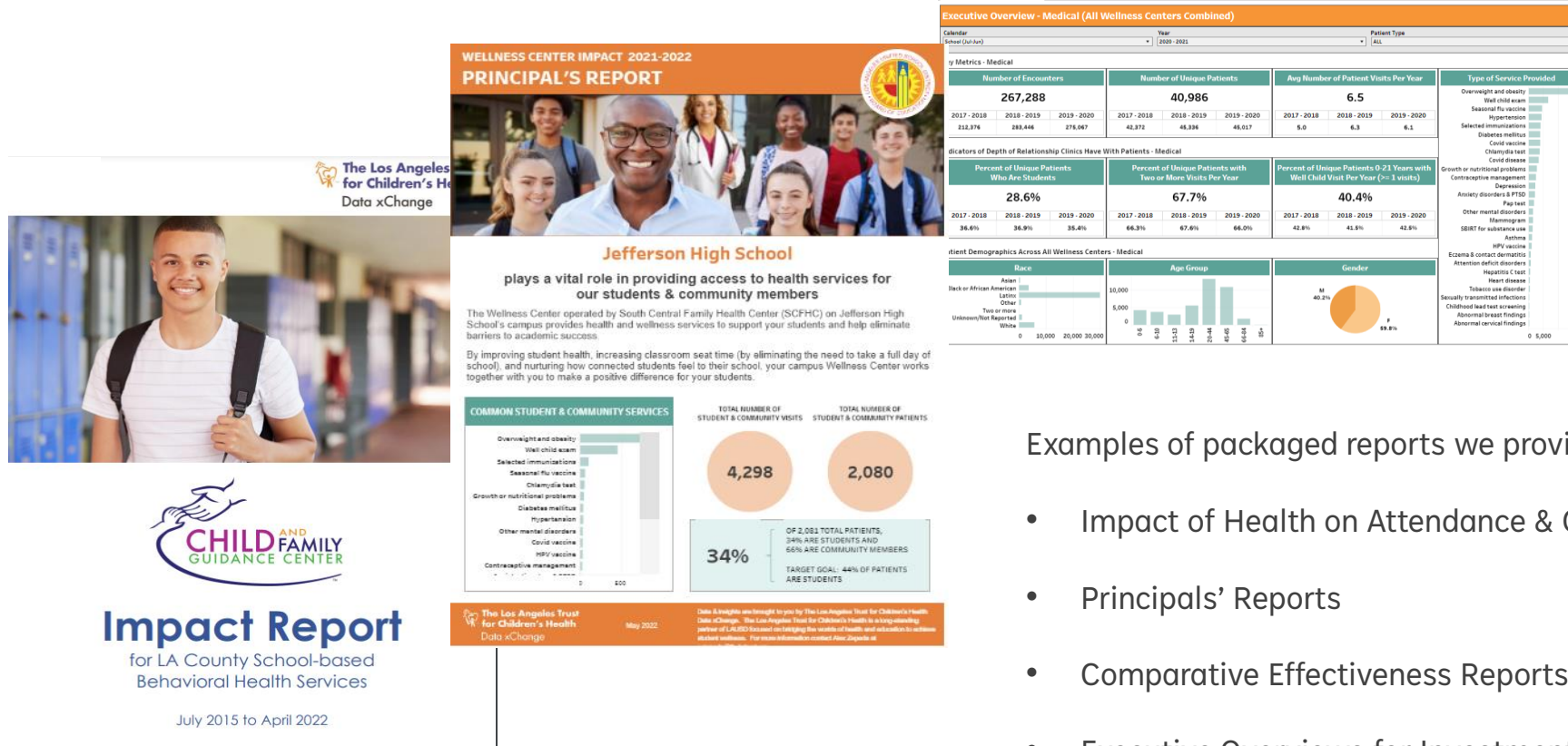
Public school districts are reimbursed \$50 - \$150 per day per child for every day that they attend school. Our data has shown that school-based health increases attendance -- which puts money in the pocket of school districts.

Whole Person Care. Our data is unique because it includes mental health, physical health, and dental health services – this means we can understand the interconnectedness of health issues and treat patients in a holistic way.

What we provide:

1. Reporting and evaluation

Customized reports, analysis, evaluation of programs and policies are designed for Data xChange participants based on their unique needs



WELLNESS CENTER IMPACT 2021-2022 PRINCIPAL'S REPORT

Jefferson High School plays a vital role in providing access to health services for our students & community members

The Wellness Center operated by South Central Family Health Center (SCFHC) on Jefferson High School's campus provides health and wellness services to support your students and help eliminate barriers to academic success.

By improving student health, increasing classroom seat time (by eliminating the need to take a full day of school), and nurturing how connected students feel to their school, your campus Wellness Center works together with you to make a positive difference for your students.

COMMON STUDENT & COMMUNITY SERVICES

- Overweight and obesity
- Well child exam
- Selected immunizations
- Seasonal flu vaccine
- Chlamydia test
- Growth or nutritional problems
- Diabetes mellitus
- Hypertension
- Other mental disorders
- Covid vaccine
- HPV vaccine
- Contraceptive management

TOTAL NUMBER OF STUDENT & COMMUNITY VISITS: 4,298

TOTAL NUMBER OF STUDENT & COMMUNITY PATIENTS: 2,080

34% OF 2,082 TOTAL PATIENTS, 34% ARE STUDENTS AND 66% ARE COMMUNITY MEMBERS

TARGET GOAL: 44% OF PATIENTS ARE STUDENTS

Executive Overview - Medical (All Wellness Centers Combined)

Calendar: School (Jul-Jun) | Year: 2020-2021 | Patient Type: ALL

Key Metrics - Medical

Number of Encounters	Number of Unique Patients	Avg Number of Patient Visits Per Year
267,288	40,986	6.5
2017-2018: 212,376	2017-2018: 42,372	2017-2018: 5.0
2018-2019: 288,446	2018-2019: 46,336	2018-2019: 6.3
2019-2020: 278,047	2019-2020: 48,017	2019-2020: 6.1

Indicators of Depth of Relationship Clinics Have With Patients - Medical

Percent of Unique Patients Who Are Students	Percent of Unique Patients with Two or More Visits Per Year	Percent of Unique Patients 0-21 Years with Well Child Visit Per Year (<= 1 visits)
28.6%	67.7%	40.4%
2017-2018: 34.6%	2017-2018: 66.3%	2017-2018: 42.8%
2018-2019: 35.9%	2018-2019: 67.6%	2018-2019: 41.8%
2019-2020: 35.4%	2019-2020: 66.0%	2019-2020: 42.8%

Patient Demographics Across All Wellness Centers - Medical

Race	Age Group	Gender
Asian	0-4	M: 40.2%
Black or African American	5-9	F: 59.8%
Latino	10-14	
Other	15-19	
Two or more	20-24	
Unknown/Not Reported	25-29	
White	30-34	

Type of Service Provided

- Overweight and obesity
- Well child exam
- Seasonal flu vaccine
- Hypertension
- Selected immunizations
- Diabetes mellitus
- Covid vaccine
- Chlamydia test
- Covid disease
- Growth or nutritional problems
- Contraceptive management
- Depression
- Anxiety disorders & PTSD
- Pap test
- Other mental disorders
- Mammogram
- SIRT for substance use
- Arthritis
- HPV vaccine
- Eczema & contact dermatitis
- Attention deficit disorders
- Hepatitis C test
- Heart disease
- Tobacco use disorder
- Sexually transmitted infections
- Childhood lead paint screening
- Abnormal breast findings
- Abnormal cervical findings

Impact Report for LA County School-based Behavioral Health Services
July 2015 to April 2022

Examples of packaged reports we provide (to name just a few):

- Impact of Health on Attendance & GPA Reports
- Principals' Reports
- Comparative Effectiveness Reports for Sharing Best Practices
- Executive Overviews for Investment Allocation

What we provide:

2. Research

Peer-reviewed, published studies using our data show that putting health services in schools plays a vital role in improving attendance and student mental health



Results show that visiting a school-based health center (SBHC) is significantly associated with improved attendance over time. Even more dramatic improvement in attendance was observed for students with a mental health diagnosis. These findings rigorously confirm that SBHCs serve an important role in improving both access to care and school attendance.



Of the SBHCs that remained open during Covid, this study shows that the number of preventive exams increased in school-aged patients and the number of mental health visits increased for patients of all ages. The overall evidence suggests that SBHCs served as a 'medical home' for many patients during Covid.



Results show that dental pain causes approximately 2 days of missed school and using a broad based, oral health coalition, a school-based universal screening and fluoride varnishing program can improve the oral health of children with a high burden of untreated dental diseases.

What we provide:

3. Boots on the ground

For some of our Data xChange participants we provide resources who work with schools and FQHCs to help implement changes that our insights uncover

We implement student-led, peer-to-peer influencer programs that encourage kids to get help and seek out the health services they need.



We have a cadre of adults who supervise student-led campaigns and conduct parental outreach efforts.

We conduct quarterly learning collaboratives for FQHCs staff to share best practices.



Our Adult Allies are ready and willing to become certified mental health coaches.

Critical findings on mental health

Below is just one slice of our eye-opening insights about health and academic performance

Mental Health Hits Attendance the Hardest

- Of all health services received by kids, the top 4 that impact attendance the most are mental health related (followed only by obesity)

- Anxiety
- Depression
- Other Mental Disorders
- ADHD

Avg Schools Days Absent per Year

- Anxiety 20 days
- Depression 17 days
- Other Mental Disorders 16 days
- ADHD 10 days

Total School Days Absent by Health Issue

- Anxiety 230,000
- Depression 260,000
- Other Mental Disorders 80,000
- ADHD 180,000

Avg GPA (out of 4.0)

- Anxiety 0.3
- Depression 1.8
- Other Mental Disorders 2.6
- ADHD 2.7

Age 12 to 13 is Most Vulnerable

- Absenteeism spikes dramatically for patients with mental health issues between the age of 12 and 13
- GPA sharply declines from 12 to 13 years for patients with mental health issues

Critical findings on mental health

Total School Days Absent by Health Issue

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• Depression	260,000
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• ADHD	180,000

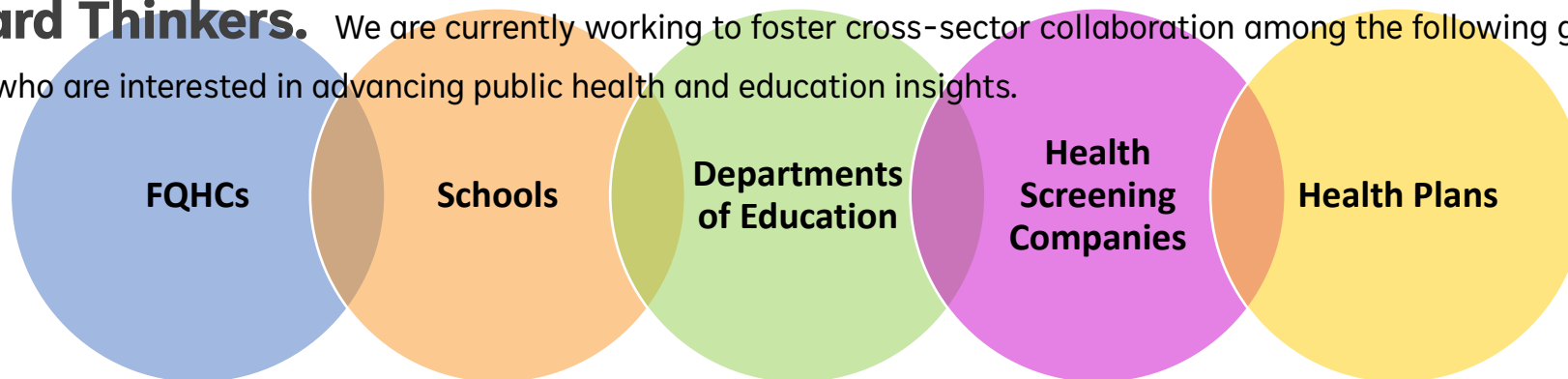
Attendance insights help to interrupt the school-to-prison pipeline and puts money in the pocket of school districts

- Studies have shown that kids who are chronically absent are less likely to graduate, and kids that do not graduate are 8 times more likely to wind up in jail. The average cost to incarcerate someone in California is \$160,000 per year and the average cost to educate a child is \$24,000 per year.
- Public school districts are reimbursed \$50 - \$150 per day per child for every day that they attend school. Our data has shown that school-based health increases attendance -- which puts money in the pocket of school districts.
 - Assuming \$100 per day reimbursement, depression alone contributes to approximately \$26,000,000 in lost reimbursement.

Cross sector collaboration

We make it easy for different sectors to collaborate, integrate data, and measure joint efforts

- **Interoperable.** The Data xChange was intentionally designed to be interoperable with other systems. It effortlessly scales to add more partners quickly and efficiently.
- **Fast & Easy.** We easily integrate with any electronic health record system and make data sharing a quick and low-tech process. This alleviates the time-consuming data management burden many of our partners experience.
- **Safe & Private.** Our patent pending de-identification process creates anonymous, individual-record-level data with no risk of violating HIPAA or FERPA.
- **Forward Thinkers.** We are currently working to foster cross-sector collaboration among the following groups and welcome any partners who are interested in advancing public health and education insights.



What to expect

Here is what you can expect when participating in The L.A. Trust for Children's Health Data xChange

- **Consultative Discovery Period.** A dedicated account manager is assigned to you who will work with you to understand and customize the following:
 - Monthly, quarterly, annual reporting needs
 - Statistical research studies you may want to conduct yourself, or that you may want us to do on your behalf
 - Boots-on-the-ground programs that you may want to implement
- **One-time Set-up.** Once the parameters of your solution are determined through our Consultative Discovery, we conduct a one time set up of data feeds. This usually takes anywhere from 3 days to 3 weeks depending on the complexity of data to be integrated and shared and the extent to which we will be incorporating historical data in the initial bulk upload.
- **Regularly Scheduled Executive Readouts and Collaboration.** Data invites change but it must be acted upon appropriately to make change actually happen. The L.A. Trust provides executive read-outs and collaboratives where all involved partners convene determine and evaluate courses of action.
- **Annual Maintenance.** Once your reports, research projects, and boots-on-the-ground initiatives are in place we maintain the quality of the data that supports these efforts and refresh it on a regular cadence.

Appendix

Timeline of Data xChange



2018

- **11 clinics** start using an app created by The L.A. Trust called the Data Helper. It collects and de-identifies data from school-based FQHCs in an automated way at the click of 3 buttons. Clinics save 20-40 hours of time that used to be spent sending spreadsheets manually.
- **Learning collaboratives** with FQHCs begin introducing evidence-based best practices.

2019

- **LAUSD** begins using reports to allocate resources and investments for existing and new school-based health centers (SBHCs).
- **Data Use Agreement with LAUSD** is signed to bring in attendance, grades, and graduation data.

2020

- **Journal of School Health study** based on 2020 data shows mental health visits spiked during the pandemic and that schools served as “medical home” during this period.
- **National School Based Health Alliance** receives one central and set of data from the Data xChange for all participating SBHCs instead of 19 different spreadsheets.

2021

- **Annual Data xChange Advisory Council** is hosted by The L.A. Trust with thought leaders in children's health who review meaningful insights from Data xChange.
- **Annual Impact Report** for LAUSD school-based health is published by The L.A. Trust

2022

- **27 clinics** now participate in the Data xChange.
- **Mental health reporting** is launched.

2023

- **Journal of Adolescent Health study** is published that shows school-based health services sharply improve the trajectory of attendance for students after first mental health visit.
- **Big Smiles Signs Contract** to participate in Data xChange to collect dental data from national chain of dental providers

Data Profile

Health

Encounters	2015 - 2023
Primary Care	896,059
Dental Health	208,088
Mental Health	578,694
Total Encounters	1,682,841
Unique Patients	2015-2023
Primary Care Only	167,091
Dental Health Only	45,652
Mental Health Only	11,983
Primary Care & Dental	167,659
Primary Care & Mental	179,074
Dental & Mental	57,635
Total Unique Patients	179,642

- Collected monthly from 27 clinics
- All ICD and CPT codes by encounter
- Lab data from 5 clinics
- Uniform Data System (UDS) categories such as: obesity, diabetes, immunizations, sexually transmitted diseases, etc.
- Insurance billed
- Social Determinants of Health (SDoH) as coded by the 16 clinics (not purchased third party data)

Demographics

- Race
 - Asian
 - Black
 - Latinx
 - White
 - Other
 - Native Hawaiian or Pacific Islander
 - American Indian or Alaska Native
 - Two or more
 - Unknown / not reported
- Ethnicity
 - Hispanic
 - Non-Hispanic
- Gender
 - Male
 - Female
 - Other
 - Not reported
- Year of birth

Academic

- Collected annually
- Over 450,000,000 records
- Daily attendance
- Graduation indicator
- Non-graduation indicator with reason codes
- Annual grade point average
- Grades by subject
- College credit class indicator
- Standardized test scores
- Homeless indicator
- English learner indicator
- Foster youth indicator
- Free lunch indicator

Data Readiness

- Longitudinal, outcomes-based data shows meaningful connections between health and a student's attendance, grades, and graduation rates
- De-identified, standardized, and normalized
- Patent pending technology minimizes any risk of re-identification and creates 'persistent' identifiers so that frequency, volume, and academic success can be studied over time
- De-identified in a consistent and automated way that makes comparative research easier
- Control group ready: academic data includes all students, not just students who use school-based health centers
- Results available as packaged reports that are ready to use or as research-ready data extracts