California Health Information Technology Landscape Assessment

SUMMARY OF FINDINGS

Summary of Department of Health Care Services (DHCS) Survey,
Part 2

CHCF
INNOVATION
FUND

Overview of the Presentation

The Department of Health Care Services (DHCS) engaged the University of California's San Francisco (UCSF) Clinical Informatics Improvement and Research group in 2022 to conduct research on a subset of California's mental health, substance use disorder, and social service organizations to help assess their basic data exchange capabilities.

The following presentation summarizes the information collected in that work and provides an early picture of the wide variability in levels of health information technology (HIT) adoption, structured data capture, and cross-sector data exchange capacity across those organizations.

The information is intended for state and county policymakers working to advance the design and implementation of data exchange systems to achieve robust cross-sector whole-person care.

The California Advancing and Innovating Medi-Cal (CalAIM) was a key factor motivating DHCS to conduct this research. CalAIM is a multiyear initiative to improve the Medi-Cal program by integrating health care service delivery with mental health, substance use disorder, and social services. The program is intended to support complex patient populations served by many local organizations with distinct priorities, financial incentives, and technical capabilities.

CalAIM's success requires a reliable and secure system of data exchange among providers of clinical, behavioral health, and social services so patients and providers can access the information they need, when they need it, wherever they are.

Data exchange capabilities among traditional health care organizations, especially large hospital systems, grew substantially after 2009 with the enactment of the HITECH Act, which committed more than $47 billion in grants, loans, and incentives to accelerate Electronic Health Record (EHR) adoption. Unfortunately, the data exchange capabilities of behavioral health and social service providers left out of HITECH funding lag significantly behind.

The presentation is organized in the following seven sections:

> **1. Experiencing Homelessness**

> **2. Mental Heath & Substance Use Disorder (SUD)**

> **3. Long Term Care (LTC)/Nursing Transitions**

> **4. Child & Youth Welfare**

> **5. Transition from Incarceration**

> **6. Avoidable Hospitalization/ Emergency Department (ED) Use**

> **7. Cross Sector Comparisons of Data**

Note: More detailed is available in the underlying UCSF report, California Health Information Technology Landscape Assessment — Part 2, which builds on an initial study characterizing the data exchange activities among California hospital systems, health information exchange organizations, and skilled nursing facilities, California State Medi-Cal Health Information Technology Plan. The initial report is also summarized in *An Assessment of the California Health Information Technology Landscape in 2022: Summary of Key Findings.*

Structure of the Presentation

UCSF collected information on the data exchange capabilities of a subset of provider organizations, including those organizations' health IT systems, data collection practices, and exchange activities. This presentation summarizes those findings, loosely grouping these provider types by the Enhanced Care Management (ECM) population they are likely to support.

Population of Focus

Provider Type

Measure of Data Exchange Capability

Individuals experiencing homelessness

Individuals with serious mental health and/or substance use disorder needs

- Continuum of Care organizations (COC)
- Medical respite facilities

- County behavioral health
- Substance use disorder treatment facilities (SUDT)
- Sobering centers

Health IT Systems
Has the organization adopted a health IT system?

Adults living in community at risk for long-term care institutionalization; nursing facility residents transitioning to community

Children and youth involved in child welfare

- Skilled nursing facilities (SNFs)
- In-home services and support (IHSS)

- School-based health centers
- Child welfare and social services

Data Collection Practices
Does the organization collect and store relevant data in a structured electronic format?

Individuals transitioning from incarceration

Individuals at risk for avoidable hospital or ED utilization

- Jails
- Prisons

- Many types of organizations including:
  o Medi-Cal managed care plans (MCPs)
  o Hospital systems

Data Exchange Activity
Does the organization send and receive information in an electronic format?

Research Methodology

UCSF researchers used surveys, interviews, and existing data sources to collect information on the data exchange capabilities of a subset of CalAIM participating providers types.

Provider Type	Research Approach	Data Sources and Research Participants
Hospitals	Existing data sources	American Association Annual Survey and Information Technology Supplement, 80% of 337 California general acute care hospitals participated.
Managed Care Plans	UCSF survey	Fourteen of California's 24 MCPs (58%) participated.
County Behavioral Health	UCSF interviews, existing data sources	Behavioral Health Concepts research reports, 90% of 58 counties participating; UCSF interviews with Humboldt, Los Angeles, Madera, Merced, and Orange Counties.
Substance Use Disorder Treatment	UCSF interviews, existing data sources	National Survey of Substance Abuse Treatment Services, 85.8% of California facilities responded.
Sobering Centers	UCSF survey	Ten of 12 organizations (83%) participated.
Continuum of Care Entities	UCSF interviews, existing data sources	Homeless Strategies for California 2021 Survey of 44 Continuum of Care (COC) organizations; UCSF interviews with 7 organizations.
Medical Respite / Recuperative Care	UCSF survey	Sixteen of 42 medical respite organizations (38%) participated.
State Prisons	UCSF interview	The California Correctional Health Care Services (CCHCS), which operates the primary IT used by the state's 34 prisons, was interviewed for this report.
County Jails	UCSF survey	Twenty-one of approximately 115 county jails (18%) participated.
County Child Welfare Services	UCSF interviews	UCSF interviews with the County Welfare Directors Association, the California Department of Social Services, and the California Office of Systems Integration.
School-Based Health Centers	UCSF survey, UCSF interviews	School-Based Health Alliance 2022 Census, 103 of 291 California-based organizations (35%) participated; UCSF conducted 6 supplemental interviews.
County In-Home Support Services	UCSF interviews	UCSF interviews with Adult Programs Division of California Department of State Services, County Welfare Directors Association, and San Francisco Human Services Agency.
Skilled Nursing Facilities	UCSF interviews, existing data sources	Clinical Informatics and Improvement Research Survey, 52% of 1,230 SNFs participated.

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EXPERIENCING HOMELESSNESS

Population of Focus: Individuals Experiencing Homelessness

Provider Types

Examples:

Continuum of Care organizations. The umbrella term for the group of organizations and agencies that collectively coordinates homeless assistance activities and resources in a community**.** Approximately 44 in California.

Medical respite / recuperative care. Provide care for people experiencing homelessness who are too ill or frail to recover from a physical illness or injury on the streets but are not ill enough to require a hospital or skilled nursing facility level of care. Approximately 42 in California at the time of the UCSF survey.

Population Description

Adults without dependent children/youth living with them experiencing homelessness who meet one or more of the following conditions:

- Lack a fixed, regular, and adequate nighttime residence

- Have a primary residence that is a public or private place not designed for or ordinarily used as a regular sleeping accommodation for a human being, including a car, park, abandoned building, bus or train station, airport, or camping ground

- Exit an institution into homelessness

- Will imminently lose housing in the next 30 days

- Fleeing domestic violence, dating violence, sexual assault, stalking, and other dangerous, traumatic, or life-threatening conditions

- AND have at least one complex physical, behavioral, or developmental health need with inability to successfully self-manage and for whom coordination of services would likely result in improved health outcomes and/or decreased utilization of high-cost services.

Notes: A related population, Homeless Families or Unaccompanied Children/Youth Experiencing Homelessness, includes children, youth, and families with members under 21 who are experiencing homelessness. For detailed population definitions and eligibility requirements, see *CalAIM Enhanced Care Management Policy Guide* (PDF), California Dept. of Health Care Services, last updated September 2023.

Provider Type: Continuum of Care Organizations (COCs)

Continuum of Care Health Data Exchange Capabilities

% Responding COCs Reporting Using Homeless Management Information Systems (HMIS)

- Eccovia Solutions 7%
- Social Solutions 7%
- Bell Data Systems, Inc 11%
- Bitfocus Inc 50%
- WellSky 25%
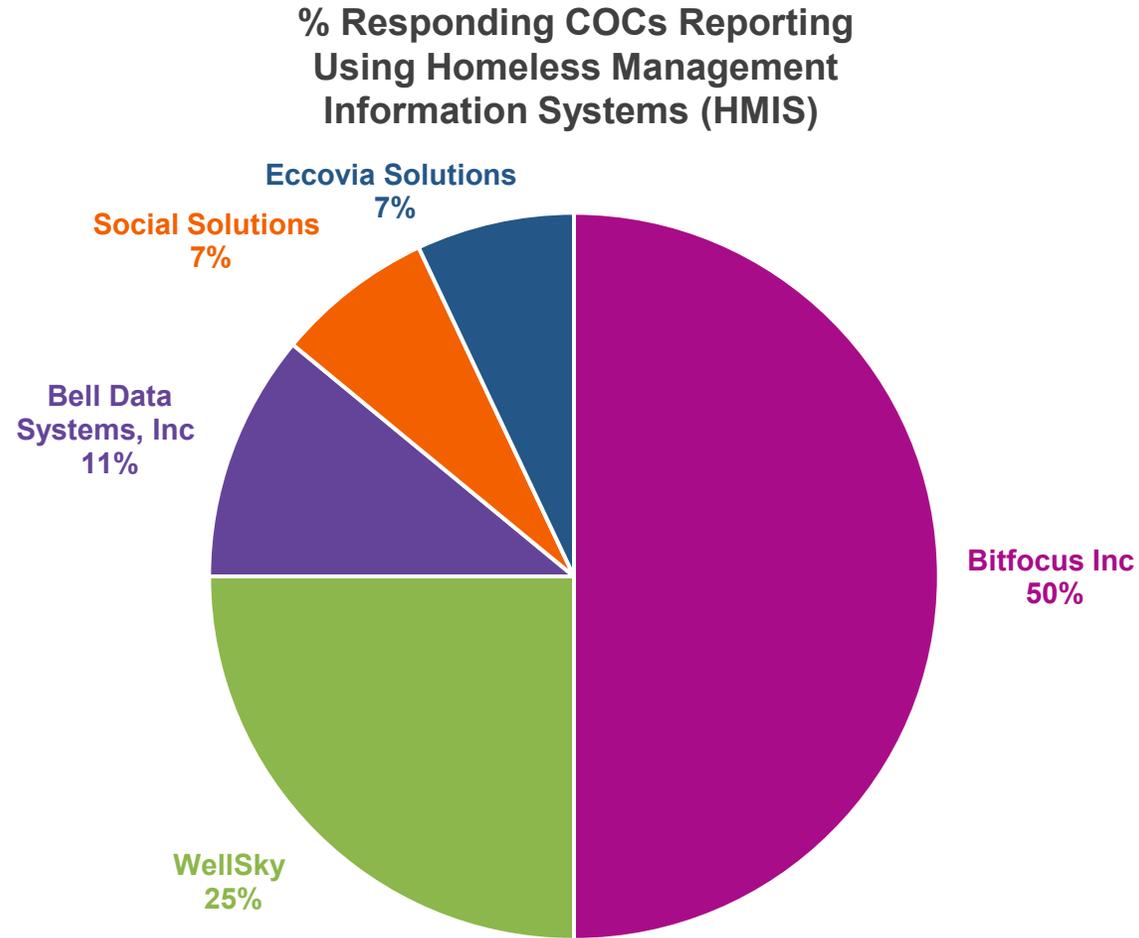
Source: California Health Information Technology Landscape Assessment — Part 2

Continuum of Care Organizations (continued)

Health IT Adoption

All Continuum of Care organizations (COCs) use IT. The main IT system they use is the Homeless Management Information System. HMIS vendors must comply with standards set by the US Department of Housing and Urban Development (HUD).

Structured Data Capture

HUD requires Universal Data Elements and Common Data Elements to be collected by all federally funded projects using an HMIS system, including SSN, birthdate, race, ethnicity, gender, veteran status, disability, and living situation. Also, most CoCs use an assessment to "score" clients to prioritize them for services. The most commonly used is the Vulnerability Index — Service Prioritization Decision Assistance Tool (VI-SPDAT) and gathering self-reported yes/no data on HIV/AIDS status, physical disabilities, developmental disabilities, substance use, mental health, chronic disease, and domestic violence.

Data Sharing Capabilities

CoCs allow HMIS access to county departments and nonprofits that serve people experiencing homelessness, and several CoCs report sharing data with local hospitals and MCPs. The total number of HMIS users in a county can range from 75 to 1,200. In addition, California requires these data to be shared via a statewide Homeless Data Integration System. HMIS systems can be integrated to share data electronically with health care providers, the biggest challenges being limited IT staff and extra work to become a Business Associate of a HIPAA Covered Entity.

Provider Type: Medical Respite Organizations

Medical Respite Health Data Exchange Capabilities
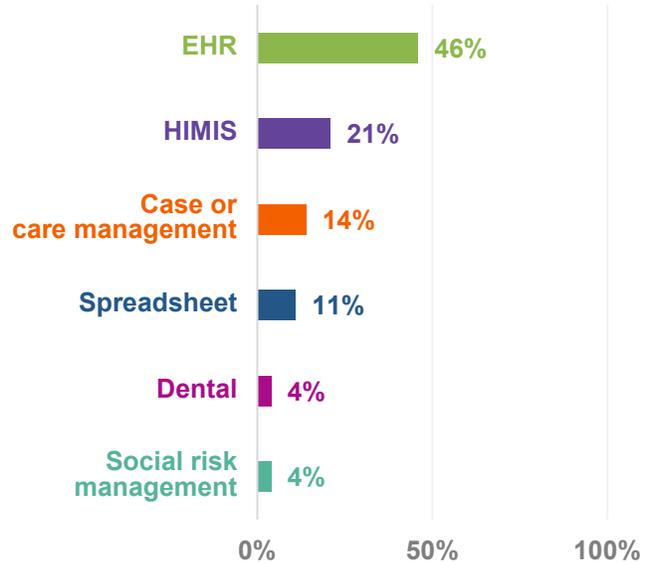
% Respondents Reporting Using This IT System

- EHR — 46%
- HIMIS — 21%
- Case or care management — 14%
- Spreadsheet — 11%
- Dental — 4%
- Social risk management — 4%

% Reporting Using This Method to Send Data

- Yes, using manual methods — 62%
- Yes, using electronic exchange — 44%
- Yes, automatic via system — 25%
- Do not send or make available — 19%

% Reporting Using This Method to Receive Data

- Yes, using manual methods — 69%
- Yes, using electronic exchange — 44%
- Yes, automatic via system — 19%
- Do not receive data — 6%
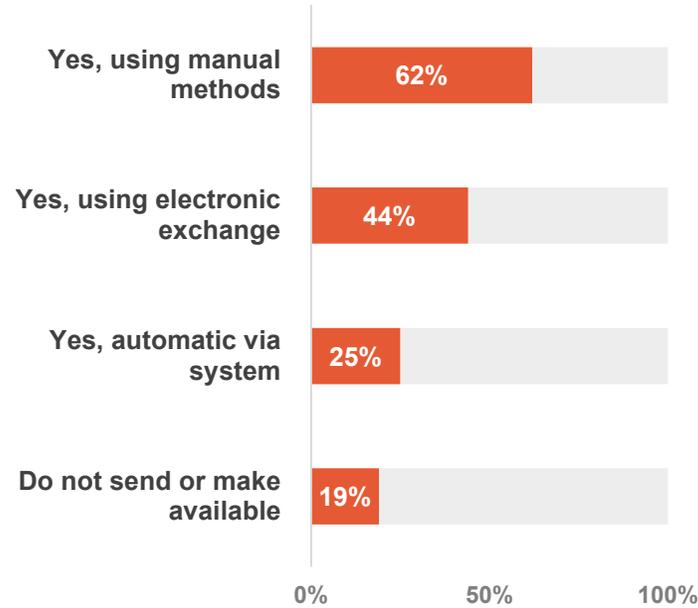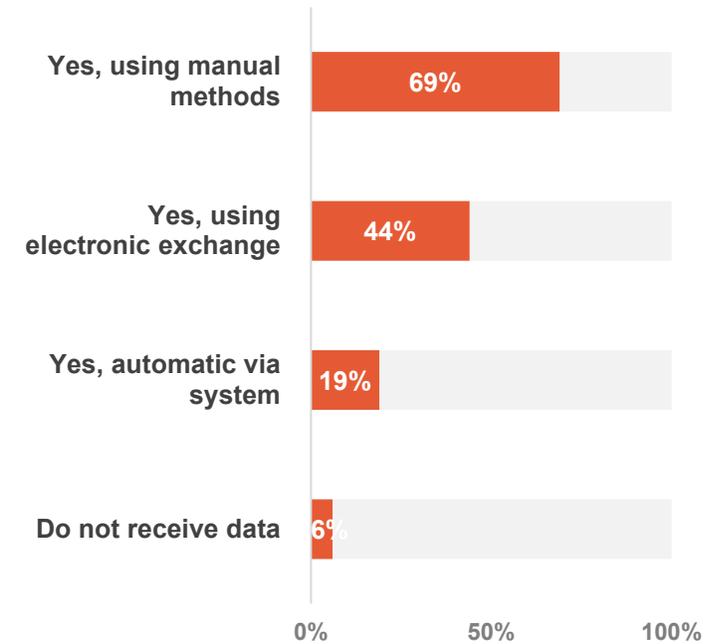
Source: California Health Information Technology Landscape Assessment — Part 2

Medical Respite Organizations (continued)

Health IT Adoption

57% of medical respite organizations use at least one HIT system, typically an EHR or HMIS.

The majority report investing in new data management systems in preparation for CalAIM, including a more user-friendly EHR, new population identification algorithms, and/or a new EHR enhancement module for behavioral health.

Structured Data Capture

- The most common data captured in structured format are race/ethnicity (69%), contact information (69%), and language spoken (56%).

- In addition, facilities report capturing many data elements — housing, probation status, employment, food insecurity, transportation access, exposure to intimate partner violence, social connections/isolation, substance use disorder diagnoses — but data format varies (e.g., structured, unstructured, mixed).

Data Sharing Capabilities

- Organizations share and receive data using manual and electronic means, with fax/eFax and secure email being most common.

- 25% report sending/making health-related information available to outside organizations, automatically via IT systems, and 81% reported using at least one outside system to view data.

- Almost half medical respite organizations cite challenges to data sharing, such as a disconnect between care management and claims/billing systems, and sharing personal health information securely.

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MENTAL HEALTH & SUBSTANCE USE DISORDER

Population of Focus: Individuals Experiencing Homelessness

Provider Types

Examples:

County behavioral health organizations. Provide mental health and substance use services, directly and through contracts with community-based organizations, and typically operate a county mental health plan (MHP). There are 56 county MHPs.

Substance use disorder treatment facilities. Provide substance use disorder prevention, assessment, and treatment services. California has approximately 1,734 SUD treatment facilities.

Sobering centers. Provide short-term care to allow someone who is intoxicated and nonviolent to safely recover from the debilitating effects of alcohol and drugs. There were approximately 12 facilities across 11 counties in California at the time of the survey.

Population Description

Adults with serious mental health and/or SUD needs meet the eligibility criteria if they are obtaining services through:

- County specialty mental health system (SMHS)
- Drug Medi-Cal Organized Delivery System (DMC-ODS) or Drug Medi-Cal program (FFS)

AND are experiencing at least one complex social factor influencing their health (e.g., lack of access to food, lack of access to stable housing, inability to work or engage in community, high measure of ACEs based on screening, former foster youth, history of recent contacts with law enforcement related to mental health and/or substance use symptoms)

AND meet at least one of the following criteria:

- At high risk for institutionalism, overdose, and/or suicide
- Use crisis services, EDs, urgent care, or inpatient stays as the primary source of care
- Experienced two or more ED visits or two or more hospitalizations due to serious mental health or SUD in the past 12 months
- Are pregnant or postpartum (12 months from delivery)

Notes: Children and youth with serious mental health and/or SUD needs must meet only the eligibility requirements for obtaining services through county SMHS, DMC-ODS, or the DMC program. No further criteria are required to be met. For detailed population definitions and eligibility requirements, see CalAIM Enhanced Care Management Policy Guide (PDF), California Dept. of Health Care Services, last updated September 2023.

Provider Type: County Behavioral Health Organizations

County Behavioral Health Data Exchange Capabilities

County Behavioral Health Agency EHR Platforms, 2022, Before CALMHSA SmartCare Implementation

- Epic 2%
- The Echo Group 2%
- FEI Systems 2%
- Does not use EHR 2%
- InSync 4%
- Krasson Incorporated 6%
- Cerner 44%
- NetSmart 38%
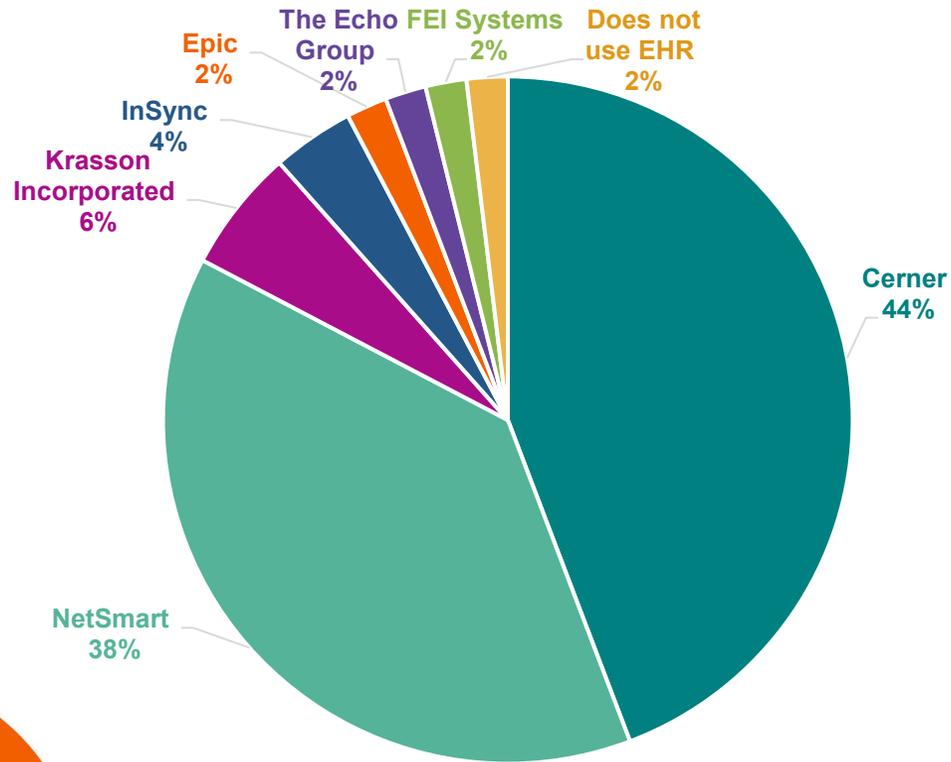
Source: *Innovative Project Plan — Section 0: Multi-County Innovative Project Plan Participants* (PDF), CalMHSA.

% of Medi-Cal Population Involved in SmartCare Implementation, 2023

37%
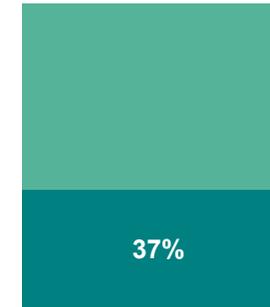
Counties participating: Colusa, Contra Costa, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lake, Marin, Mono, Nevada, Placer, Sacramento, San Benito, San Joaquin, San Luis Obispo, Santa Barbara, Siskiyou, Sonoma, Stanislaus, Tulare, and Ventura

Source: California Health Information Technology Landscape Assessment — Part 2

County Behavioral Health Organizations (continued)

Health IT Adoption

Almost all county mental health plans (MHPs) (98%) reported haveing an EHR. They provide mental health services directly and through contracts with community-based organizations (CBOs). Not all contracted CBOs have an EHR. Counties also deliver substance use services, using either the same IT system as the mental health plan or a different system.

In July 2023, the California Mental Health Services Authority (CalMHSA) and many member county behavioral health agencies initiated a collective implementation of Streamline Healthcare Solution's SmartCare, an EHR for BH data aggregation and interoperability, which additional counties are likely to adopt over time.

Structured Data Capture

Counties document basic demographics, problem lists, assessment results, care plans, and screening outcomes in structured data formats and fields. They report capturing some SDOH data but use a variety of forms rather than a standard assessment tool.

Currently, there is little alignment in how behavioral health (BH) and physical health data are collected and maintained, which makes sharing across electronic systems difficult.

Data Sharing Capabilities

While LA County has created real-time API connections between the MHP and a variety of different EHRs used by their providers, four of the five counties interviewed for this report said they were not able to share data electronically between their EHR and outside systems.

Collaborative use of SmartCare could enable more standardized BH data collection processes and improve sharing across counties and between physical and BH providers.

County BH agencies are not required to participate in California's Data Exchange Framework initiative (DxF).

Provider Type: Substance Use Disorder Treatment Facilities

Substance Use Disorder Health Data Exchange Capabilities

% of Respondents Using Exclusively Electronic Methods for Information Management Tasks

Treatment Plans	Progress Monitoring	Assessments	Store and maintain health records
36%	35%	29%	18%
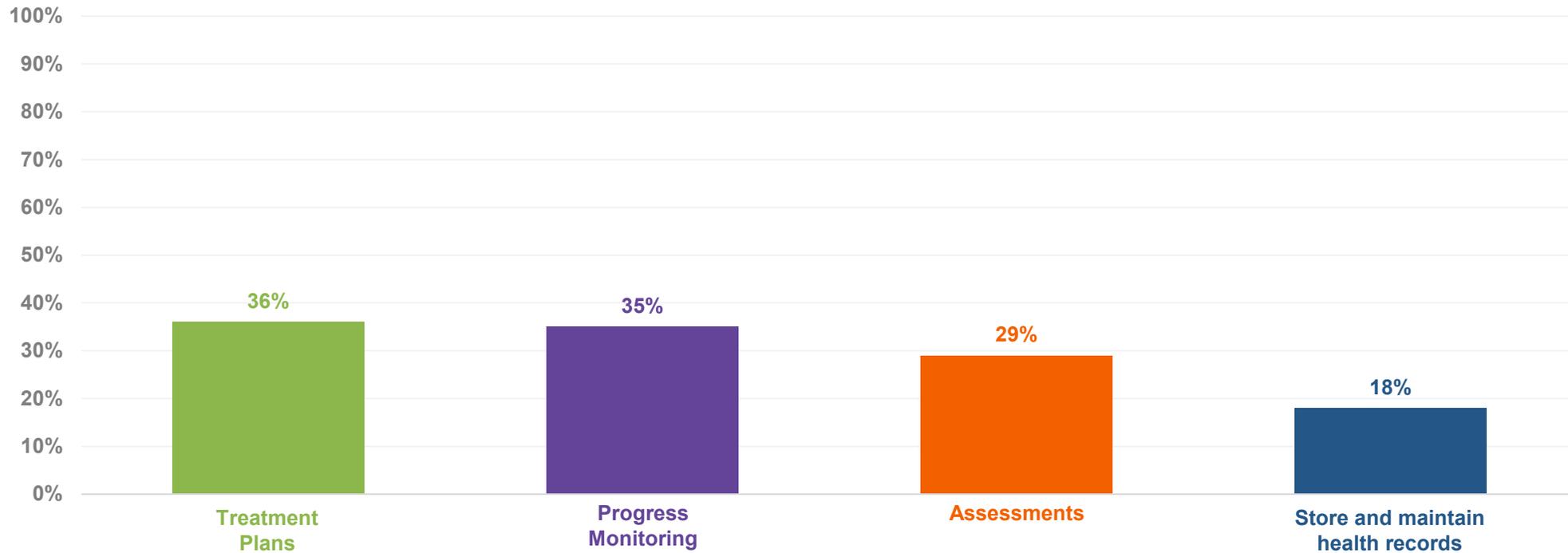
Source: _National Survey of Substance Abuse Treatment Services (N-SSATS): 2020 State Profile — California_ (PDF), SAMHSA.

Substance Use Disorder Treatment Facilities (continued)

Health IT Adoption

Only 18% of substance use disorder treatment (SUDT) facilities report using "exclusively electronic" methods to store and maintain health records.

A higher percentage report their facilities use exclusively electronic methods for various individual information management tasks, such as assessments (29%), progress monitoring (35%), and treatment plans (36%).

Structured Data Capture

The 2020 Substance Abuse and Mental Health Services Administration (SAMHSA) survey indicates that California SUDTs capture and share the substance abuse diagnoses of the patients they treat in a structured format.

Data Sharing Capabilities

SUDT facility trade associations commonly report that behavioral health systems share very little SUD data with primary care organizations, Medicaid managed plans, and Health Information Exchange (HIE) organizations, primarily because federal law (42 CFR Part 2) which is very restrictive and prohibits sharing SUD information without explicit, written consent.

Provider Type: Sobering Centers

Sobering Center Health IT Systems and Practices

% Reporting Having This IT System
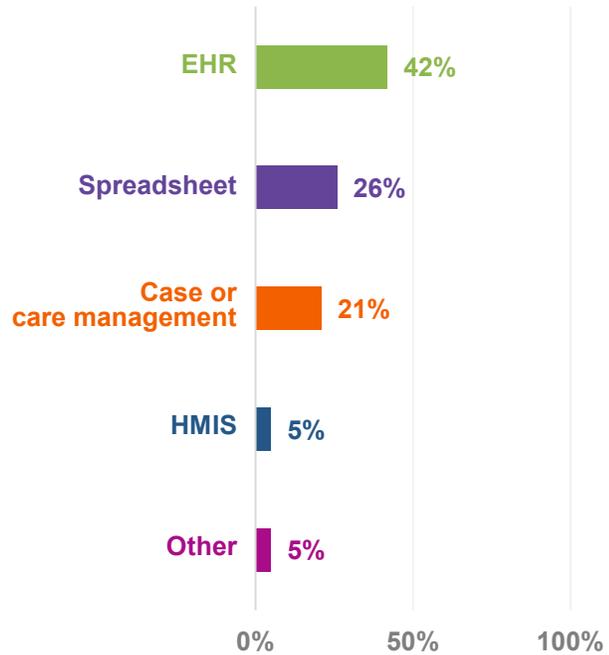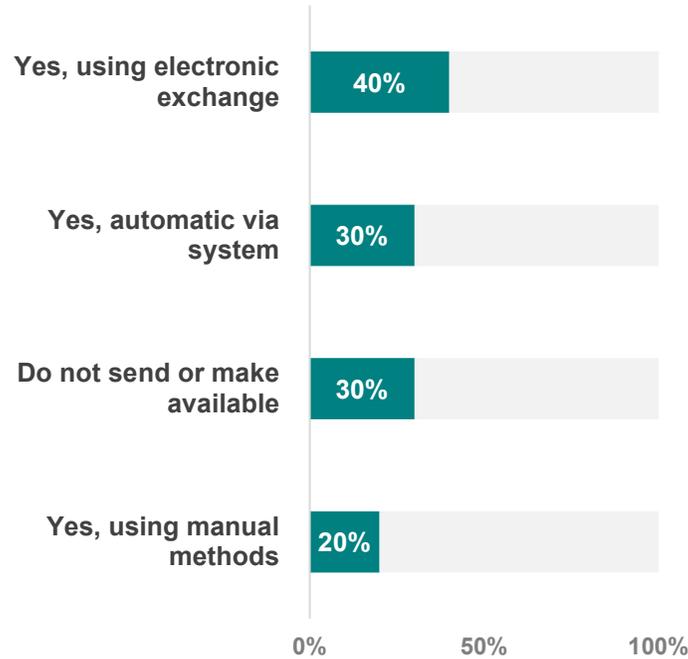
- EHR — 42%
- Spreadsheet — 26%
- Case or care management — 21%
- HMIS — 5%
- Other — 5%

% Reporting Using This Method to Send Data

- Yes, using electronic exchange — 40%
- Yes, automatic via system — 30%
- Do not send or make available — 30%
- Yes, using manual methods — 20%

% Reporting Using This Method to Receive Data

- Yes, using manual methods — 40%
- Yes, using electronic exchange — 20%
- Yes, automatic via system — 20%
- Do not receive data — 20%
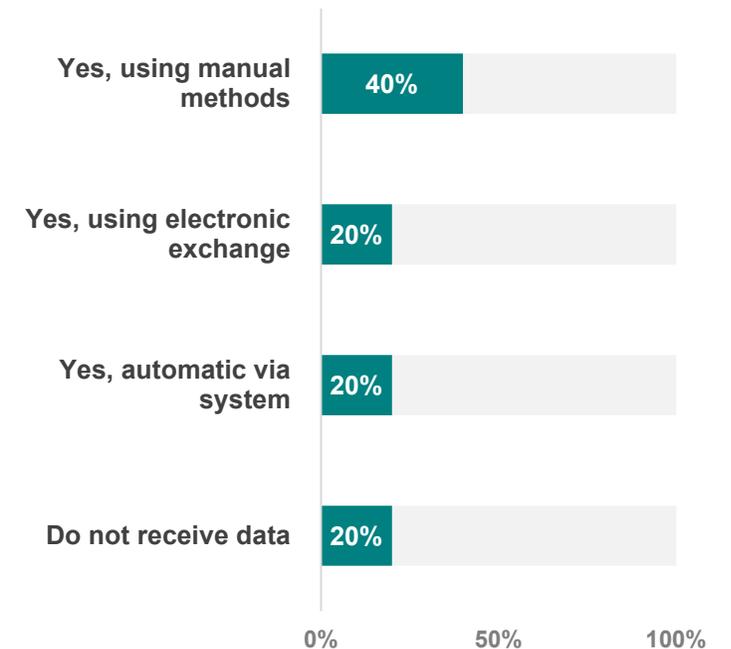
Source: California Health Information Technology Landscape Assessment — Part 2

Sobering Centers

Health IT Adoption

Every respondent reported using an IT system, with 60% using more than one system. 42% of respondents reported using an EHR. The most common non-EHR tools were spreadsheets (26%) and/or a case management system (21%).

Structured Data Capture

Only a handful of data elements are commonly captured in a fully structured way: race/ethnicity (60%), housing status (50%), and contact information (50%). Sobering centers typically also collect information about substances used, food insecurity, language, and referral source.

Data Sharing Capabilities

Seventy and 80 percent of respondents say they send and receive information, respectively, with outside organizations in a variety of formats.

Thirty percent send health information to outside organizations via a health IT system (e.g., a bidirectional referral system or EHR).

The majority rely on fax and email for electronic exchange and do not use local or community health information exchanges.

Most have no specific plan to invest in technology for CalAIM purposes.

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LONG-TERM CARE/NURSING TRANSITIONS

Population of Focus: Adults Living in Community and At Risk for Long-Term Care Institutionalization and Adult Nursing Facility Residents Transitioning to the Community

Provider Types

Examples:

Skilled nursing facilities (SNF). Provide medically necessary inpatient nursing care for chronically ill or short-term residents of all ages. Approximately 1,230 licensed long-term care nursing facilities operate in California.

County In-Home Supportive Services. Administer California's in-home assistance program for eligible aged, blind, and disabled people to enable them to remain in their homes rather than in longer-term facility-based care. There are 58 in California, one per county, with more than 600,000 providers delivering direct personal care to more than 700,000 recipients.

Population Descriptions

Adults living in community and at risk for long-term care institutionalization are adults who: Are living in the community and meet the SNF Level of Care criteria OR require lower-acuity skilled nursing, such as time-limited and/or intermittent medical and nursing services, support, and/or equipment for prevention, diagnosis, or treatment of acute illness or injury, AND are actively experiencing at least one complex social or environmental factor influencing their health (e.g., needing assistance with activities of daily living, communications difficulties, access to food, access to stable housing, living alone, the need for conservatorship or guided decisionmaking, poor or inadequate caregiving, which may appear as a lack of safe monitoring). AND can reside continuously in the community with wraparound supports

**Adult nursing facility residents transitioning to the community:** Are adult residents who are interested in moving out of the institution, AND are likely candidates to do so AND can reside in the community continuously.

Notes: For detailed population definitions and eligibility requirements, see *CalAIM Enhanced Care Management Policy Guide* (PDF), California Dept. of Health Care Services, last updated September 2023.

Provider Type: Skilled Nursing Facilities

Skilled Nursing Facility Health Data Exchange Capabilities

**Methods used by California SNFs to receive patient Information
from Discharging Providers, by Frequency, 2019**
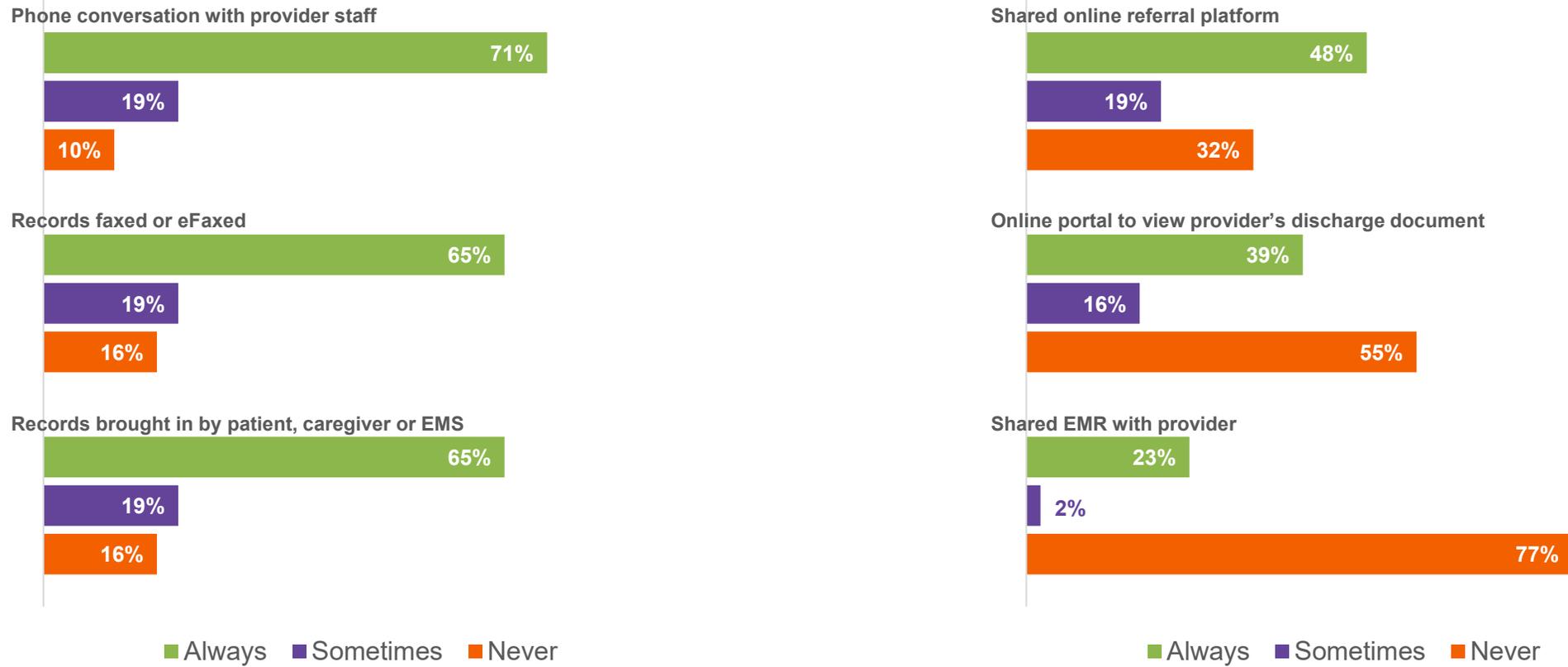
Phone conversation with provider staff
- 71%
- 19%
- 10%

Records faxed or eFaxed
- 65%
- 19%
- 16%

Records brought in by patient, caregiver or EMS
- 65%
- 19%
- 16%

Shared online referral platform
- 48%
- 19%
- 32%

Online portal to view provider's discharge document
- 39%
- 16%
- 55%

Shared EMR with provider
- 23%
- 2%
- 77%

Legend: ■ Always ■ Sometimes ■ Never

Source: *California Health IT Landscape Assessment Final Report*, February 2022 Julia Adler-Milstein et al., California Department of Health Care Services

Skilled Nursing Facilities (continued)

Health IT Adoption

Although no definitive data exist on the adoption of EHRs among SNFs in California, only 32% of the skilled nursing facilities (SNFs) reported that their "physician documentation" was stored within the SNF's EHR (as opposed to within EHRs of attending physicians or affiliated hospitals).

Structured Data Capture

At the same time, 22% to 56% of SNFs indicated they performed various information management functions using "fully electronic" methods, including documenting clinical notes (39%), viewing lab results (28%), entering medication orders (56%), and receiving decision support for medications (33%).

Data Sharing Capabilities

The majority of SNFs reported "always" using nonelectronic methods to receive information about incoming patients from discharging providers, including phone conversations with the discharging hospital (71%), faxes sent by the discharging hospital (65%), and records physically brought in by the patient (65%).

Among SNFs that reported having an EHR, less than 30% reported interoperability with their local hospital EHR.

Source: *California Health IT Landscape Assessment Final Report*, February 2022 Julia Adler-Milstein et al., California Department of Health Care Services

Provider Type: County In-Home Services and Supports

IHSS Health Data Exchange Capabilities

The Case Management and Payroll System (CMIPS) is the Primary IHSS IT System

Statewide system for all 58 counties operated by the CA Department of Health Care Services (CalHHS) Office of System Integrations (OSI).

Supports case management for over 735,000 IHSS recipients.

Enables payroll and reporting for about 640,000 providers.

Case Management Information and Payroll System

Holds end-user data on functional status and needs related to activities of daily living.

County In-Home Services and Supports

Health IT Adoption

The main In-Home Services and Supports (IHSS) IT system is the Case Management Information and Payrolling System (CMIPS), established in 1980, run by the state of California.

Originally a payroll platform used to record provider hours and payment transactions, it was later expanded for case management and most recently updated to meet the 2020 Electronic Visit Verification federal mandate.

Structured Data Capture

CMIPS holds structured IHSS application, assessment, and eligibility data, as well as recipient demographic information (race, ethnicity, language), and is information that social workers collect on their clients' health, functional status, daily support needs, SDOH circumstances, and third-party referrals.

Data Sharing Capabilities

CMIPS data can be viewed by IHSS workers in other counties. The California Office of Systems Integration develops and manages interfaces between CMIPS and other state systems, typically for administrative data sharing.

CMIPS does not interface with provider EHR systems, which limits IHSS staff's ability to access physician notes and information related to inpatient stays.

Some counties share CMIPS data with other types of service provider organizations manually. For example, San Francisco County extracts CMIPS information to coordinate food bank services.

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CHILD & YOUTH WELFARE

Population of Focus: Children and Youth Involved in Child Welfare

Provider Types

Examples:

County child welfare services. Provides services to protect and care for abused or neglected children and their families, including California's foster care program. There are 58 in California, one per county.

School-based health centers. Provide health care services on school campuses including primary care, mental health care, substance abuse counseling, case management, and/or health education. Generally, operate as a partnership between the school district and a community health center, hospital, or the local health department. There are approximately 291 in California.

Population Description

Children and youth who meet one or more of the following conditions:

• Are under age 21 and are currently receiving foster care in California

• Are under age 21 and previously received foster care in California or another state within the last 12 months

• Have aged out of foster care up to age 26 (having been in foster care on their 18th birthday or later) in California or another state

• Are under age 18 and are eligible for and/or in California's Adoption Assistance Program

• Are under age 18 and are currently receiving or have received services from California's Family Maintenance program within the last 12 months

Note: For detailed population definitions and eligibility requirements, see *CalAIM Enhanced Care Management Policy Guide* (PDF), California Dept. of Health Care Services, last updated September 2023.

Provider Type: County Child Welfare Services

County Child Welfare Health Data Exchange Capabilities

Example: foster care data exchange with educational entities

Child Welfare Agency (CWA)

- Maintains Child Welfare System/Case management System (CWS/EMS) with foster care data at the individual level.

- Prepares data for exchange weekly and annually using a secure file transfer.

State Educational Association (SEA)

- Maintains the California Longitudinal Pupil Achievement Data System (CALPADS), with high quality data on student enrollment.

- Merges CWS/CMS data with CALPADS data and makes information available to LEAS and schools.

- SEA shares school placement, enrollment, and attendance info with CWA.

Local Education Agencies (LEAs) / Schools

- LEAs/schools access CWA-SEA data about students in foster care by logging into a state data system, and can integrate them into their local data systems.

Source: _Foster Care Data Exchange Policies and Practices: California_ (PDF), US Dept. of Education, 2022.

County Child Welfare Services (continued)

Health IT Adoption

Although not an EHR, the Child Welfare Services/Case Management System (CWS/CMS) is the main IT system used by county child welfare and social services. The statewide system from IBM, originated in 1997, is maintained by Child Welfare Digital Services (CWDS).

CWDS is currently developing a new statewide system to include behavioral health information, known as the Child Welfare Services-California Automated Response and Engagement System (CWS-CARES).

Structured Data Capture

- CWS/CMS records include diagnoses, observed conditions, medications, hospitalizations, medical tests, referrals, immunizations, birth history, screenings, medical and dental exams, and well-child exams.

- Data are manually entered by social workers or public health nurses. Except for documents and progress notes, most are structured data.

- CWS-CARES will expand to include data fields such as psychotropic medication use and data from the Child and Adolescent Needs and Strengths (CANS) Tool. CANS data include ratings on health and social domains such as mental health, substance use, depression, anxiety, and hyperactivity, among others.

Data Sharing Capabilities

- CWS-CARES has a variety of data interfaces planned to allow for greater sharing of information with county-level systems. CWDS is exploring making a standard data set available to counties via a standards-based API. Given that child welfare providers are not HIPAA covered entities, the API would only make available the medical information necessary to provide care to children in their jurisdiction.

- See also page 26 for an example of foster care data sharing capabilities established under a 2016 memorandum of understanding between CWA and the State Education Association.

Source: *Foster Care Data Exchange Policies and Practices: California* (PDF), US Dept. of Education, 2022.

Provider Type: School-Based Health Centers (SBHCs)

School-Based Health Center Health Data Exchange Capabilities

% Respondents Reporting Using This IT System

Epic	Next Gen	Welligent	Dentrix	Other	eClinicalWorks	Theranest	Practice Fusion	None, we do not use an EHR system
24%	17%	16%	12%	11%	8%	7%	7%	6%
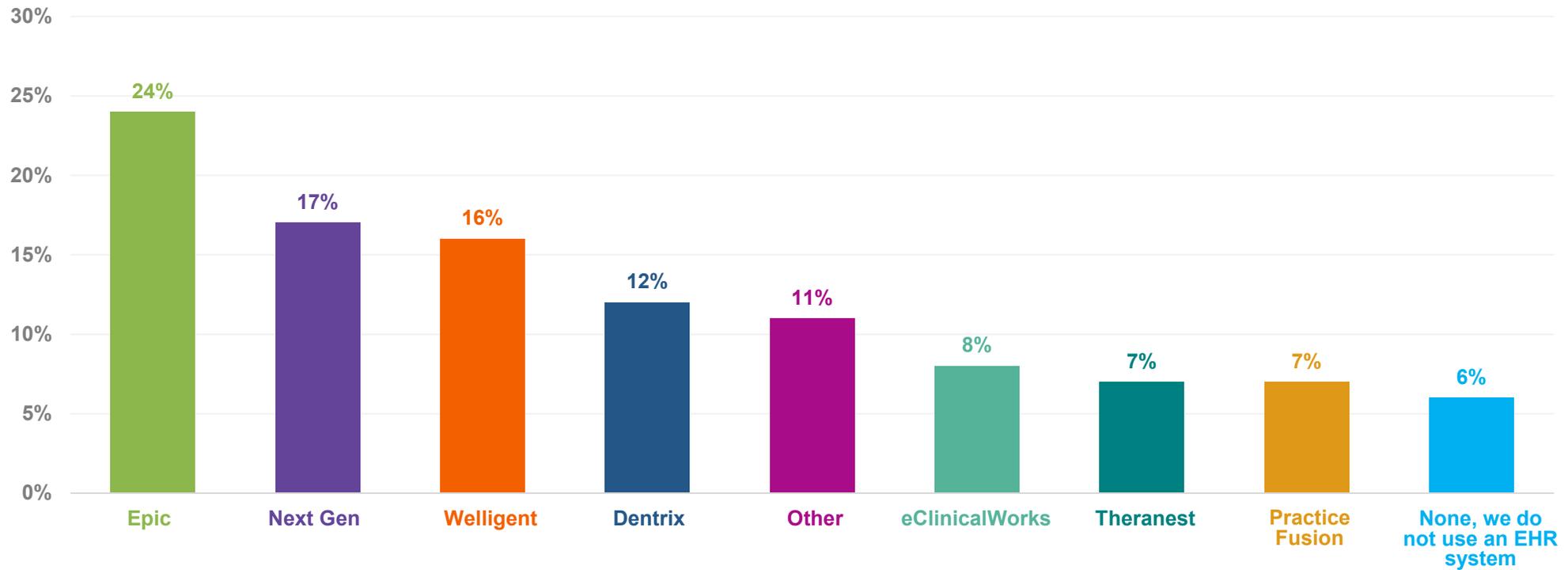
Source: California Health Information Technology Landscape Assessment — Part 2

School-Based Health Centers (continued)

Health IT Adoption

School-based health center (SBHC) IT capabilities vary widely, with provider organizations using commercial EHRs, home-grown EHRs, or another means of electronic documentation (e.g., Excel).

SBHC-affiliated primary care and behavioral health providers typically use the same system to document their clients' physical and behavioral health information.

Structured Data Capture

- SBHCs report documenting demographic and clinical data in structured fields related to the services they provide (e.g. sports physicals, reproductive health, and immunizations).

- Some Social Determinants of Health (SDOH) data may also be captured (e.g., food insecurity, family history), but they are not collected consistently or in a standardized way.

Data Sharing Capabilities

- SBHC data sharing capabilities are largely determined by the organization's affiliated clinic network or health system.

- For the most part, SBHC and school district IT systems do not share health or social needs data, nor do systems support data exchange with local community-based organizations.

- SBHC providers are typically unfamiliar with CalAIM and their role potential in the initiative.

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TRANSITION FROM INCARCERATION

Population of Focus: Individuals Transitioning from Incarceration

Provider Types

Examples:

County jails. Hold people who are awaiting a near-term hearing or trial date, who are due to be transferred to a state or federal prison, or who are convicted of crimes with relatively short sentences. Maintained by local county governments and run by the county sheriff's department. Approximately 115 across 56 counties.

State prisons. Hold people who have committed crimes in California (other than those incarcerated in jails), including all felonies and misdemeanors that do not fall under federal jurisdiction. Managed by the California Department of Corrections and Rehabilitation. Approximately 34 in California.

Population Description

Adults who are transitioning from a correctional facility (e.g., prison, jail, or youth correctional facility) or who have transitioned from a correctional facility within the last 12 months

AND have at least one of the following conditions:

- Mental illness

- Substance use disorder

- Chronic disease / significant nonchronic clinical condition

- Intellectual or developmental disability

- Traumatic brain injury

- HIV/AIDS

- Pregnancy or postpartum

Notes: Children and youth are eligible if they are transitioning from a youth correctional facility or have transitioned in the last 12 months. No further criteria are required to be met. For detailed population definitions and eligibility requirements, see *CalAIM Enhanced Care Management Policy Guide* (PDF), California Dept. of Health Care Services, last updated September 2023.

Provider Type: State Prisons

State Prison Health Data Exchange Capabilities

% of States Reporting They Do or Do Not Conduct Automated, Electronic Data Exchange Between Corrections and Medicaid Agencies as Part of Their Processes to Suspend and Reinstate Coverage of Enrollees Who Become Incarcerated

52%
States Do

48%
States
Including CA
Do Not

California does not conduct automatic electronic data exchange between corrections and the Medicaid agency, according to a 2019 Kaiser Family Foundation Study.
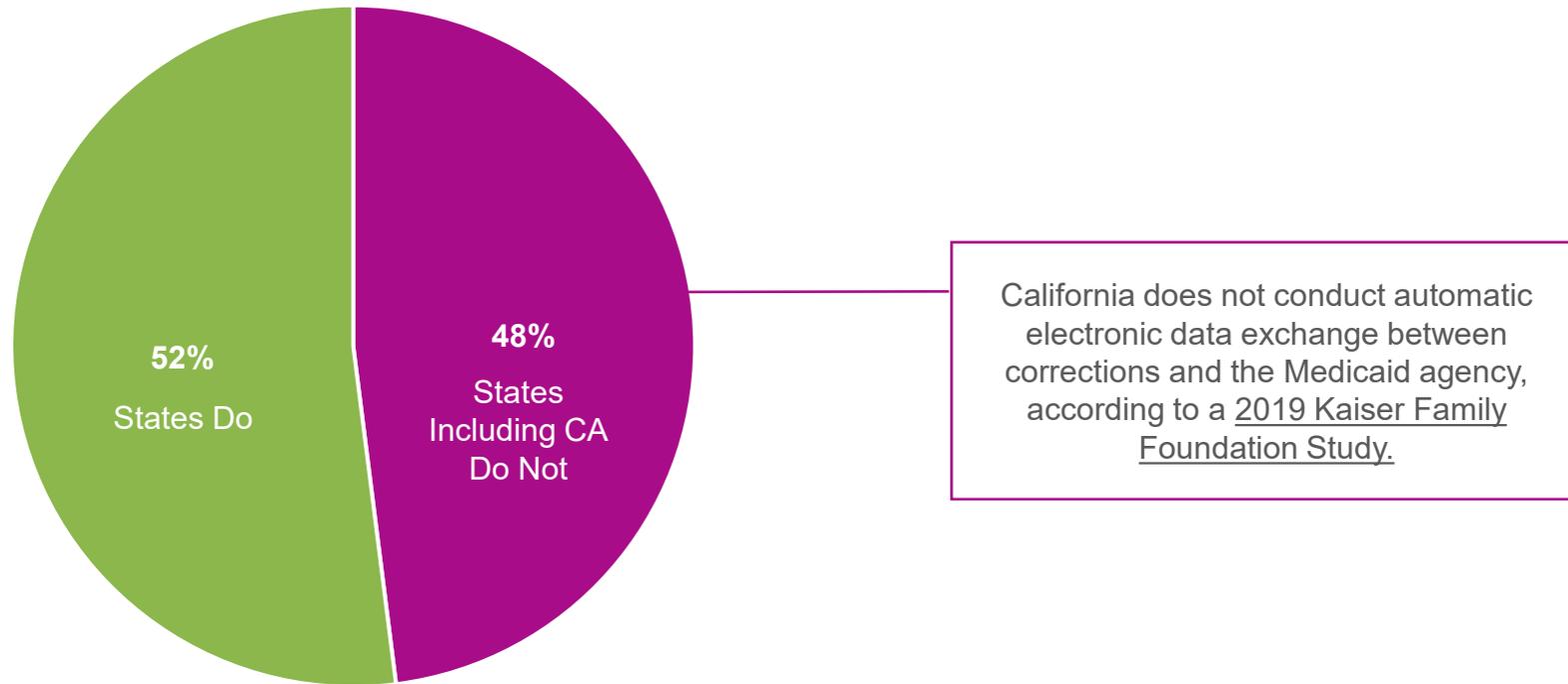
Source: "States Reporting Corrections-Related Medicaid Enrollment Policies In Place for Prisons or Jails" (state FY 2019), KFF.

State Prisons (continued)

Health IT Adoption

All 34 California Department of Corrections and Rehabilitation (CDCR) entities, prison institutions, headquarter locations, and central fill pharmacies use the Electronic Health Records System (EHRS) as their IT system for patient health records.

EHRS is managed by California Correctional Health Care Services (CCHS).

Structured Data Capture

State prison health facilities provide both inpatient and outpatient care; EHRS data and data format are very similar to any standard clinical EHR.

Data Sharing Capabilities

- Most data exchange occurs when inmates are released or are sent to specialist providers. Before release, health information is normally sent via PDF to county health or behavioral health departments upon request. At the time of the survey, CDCR had signed data sharing agreements with 15 of 58 counties.

- EHRS is capable of regular electronic exchange, but IT capabilities of the inmate-receiving counties determine and often limit how much information is shared electronically.

- California corrections and Medicaid agencies do not have electronic, automated data exchange processes in place for suspension and reinstatement of Medi-Cal coverage for enrollees who become incarcerated.

Provider Type: County Jails

County Jail Health Data Exchange Capabilities

% Respondents Reporting Using This IT System

- EHR — 61%
- Jail managment — 30%
- Case or care management system — 3%
- Criminal justice public records system — 3%
- State database — 3%

(0% — 50% — 100%)
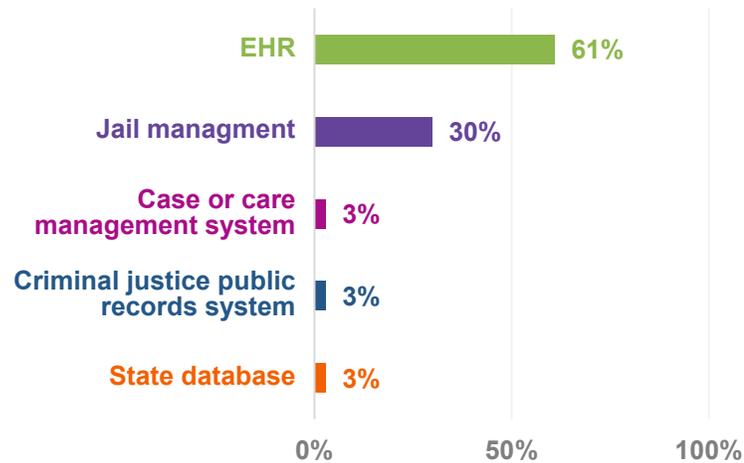
% Respondents Sharing Data Electronically

- Yes, for all/most outside organizations, 5%
- Don't know, 10%
- No, exlusively manual, 4%
- Yes, for some outside organizations, 43%
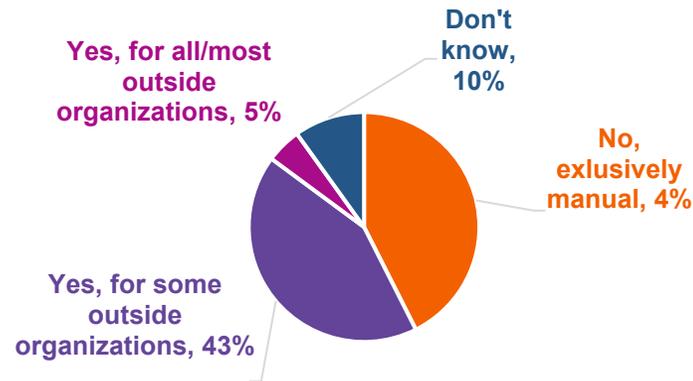
% Reporting Using This Method to View Data
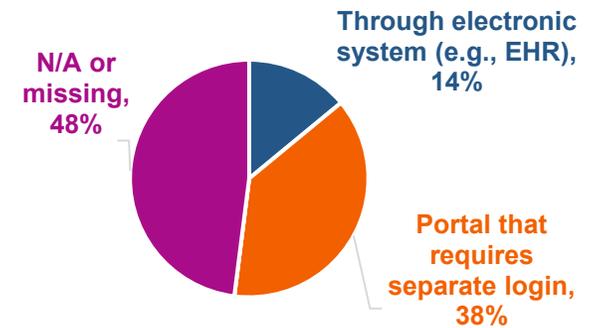
- N/A or missing, 48%
- Through electronic system (e.g., EHR), 14%
- Portal that requires separate login, 38%

Source: *California Health IT Landscape Assessment Final Report*, February 2022 Julia Adler-Milstein et al., California Department of Health Care Services

County Jails (continued)

Health IT Adoption

61% of counties report using an EHR, and 30% use a jail management system.

62% of counties report using a single health IT system, the most common being CorEMR (52%).

Structured Data Capture

- Almost all county jails report capturing race, language, sexual orientation, housing, employment, substance use, chronic conditions, HIV, disabilities, and contact information in a structured electronic format.

- Other social risk factors (e.g., food insecurity, educational attainment, transportation access, etc.) are less commonly captured.

Data Sharing Capabilities

- 43% report using only manual methods to exchange data; another 43% use electronic methods in some instances.

- Over 50% use at least one outside system to view data, commonly through a health portal (38%), and 48% report sending or making health-related information available electronically to outside organizations.

- Roughly half indicate making investments to prepare for CalAIM. Of those, several are working with local county and community providers on automatic file transfers and improved data access.

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AVOIDABLE HOSPITALIZATION/EMERGENCY DEPARTMENT USE

Population of Focus: Individuals At Risk for Avoidable Hospital or Emergency Department Utilization

Provider Types

Examples:

Hospitals. In 2020, 337 of California's general acute care hospitals provided comprehensive inpatient and outpatient services in their local communities. Most of these hospitals operate a licensed emergency department (ED), serving people who have acute medical conditions or who are experiencing trauma or injury. EDs are expected to treat all patients regardless of their ability to pay; they also provide an important entry point for inpatient hospital care.

Medi-Cal managed care plans. In California, nearly all people insured through Medi-Cal are enrolled in managed care plans, which are responsible for physical health care services and a limited set of mental health services for children and adults. Some plans are nationwide "commercial" plans while others are local or regional publicly managed organizations.

Population Description

Adults who meet one or both of the following conditions:

• Five or more emergency room visits in a six-month period that could have been avoided with appropriate outpatient care or improved treatment adherence

• Three or more unplanned hospital and/or short-term skilled nursing facility (SNF) stays in a six-month period that could have been avoided with appropriate outpatient can or improved treatment adherence

Children and youth who meet one or both of the following conditions:

• Three or more emergency room visits in a 12-month period that could have been avoided with appropriate outpatient care or improved treatment adherence

• Two or more unplanned hospital and/or short-term SNF stays in a 12-month period that could have been avoided with appropriate outpatient care or improved treatment adherence

Notes: For detailed population definitions and eligibility requirements, see *CalAIM Enhanced Care Management Policy Guide* (PDF), California Dept. of Health Care Services, last updated September 2023.

Provider Type: Hospitals and Hospital Systems

Hospital Systems Health Data Exchange Capabilities

California Hospitals Engaging in Each Domain of Health Information Exchange, 2014-2020
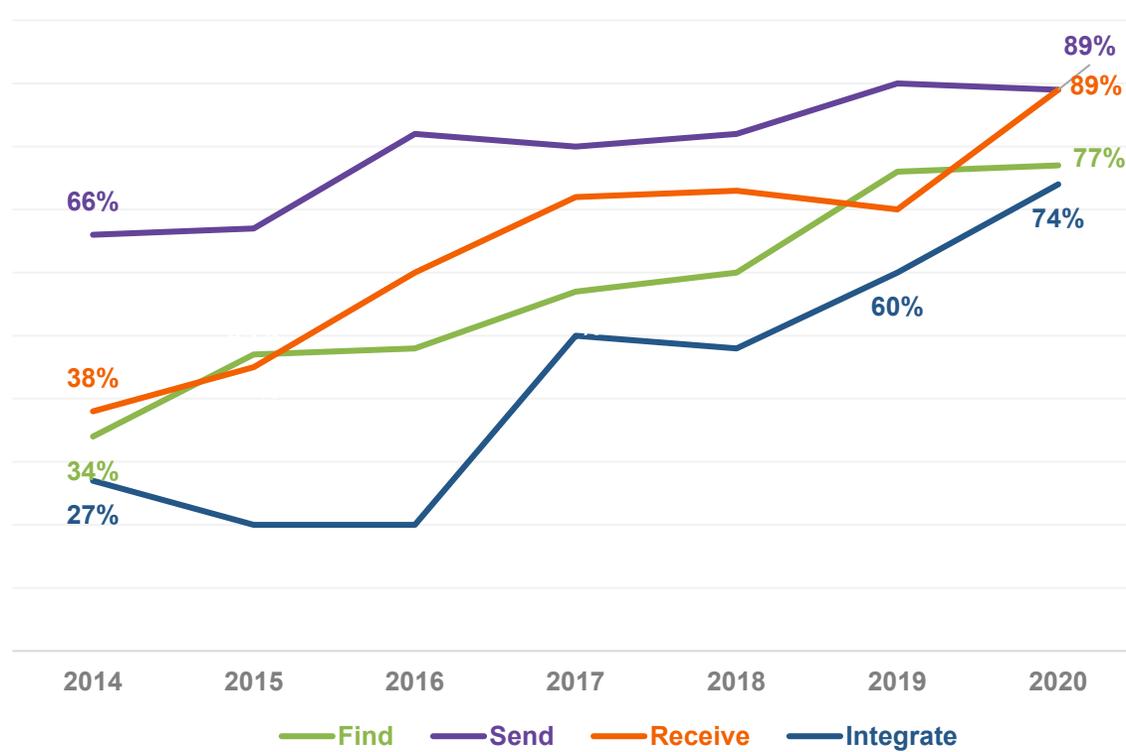
EHR Vendor Market Share Among California Hospitals, 2012 vs 2019
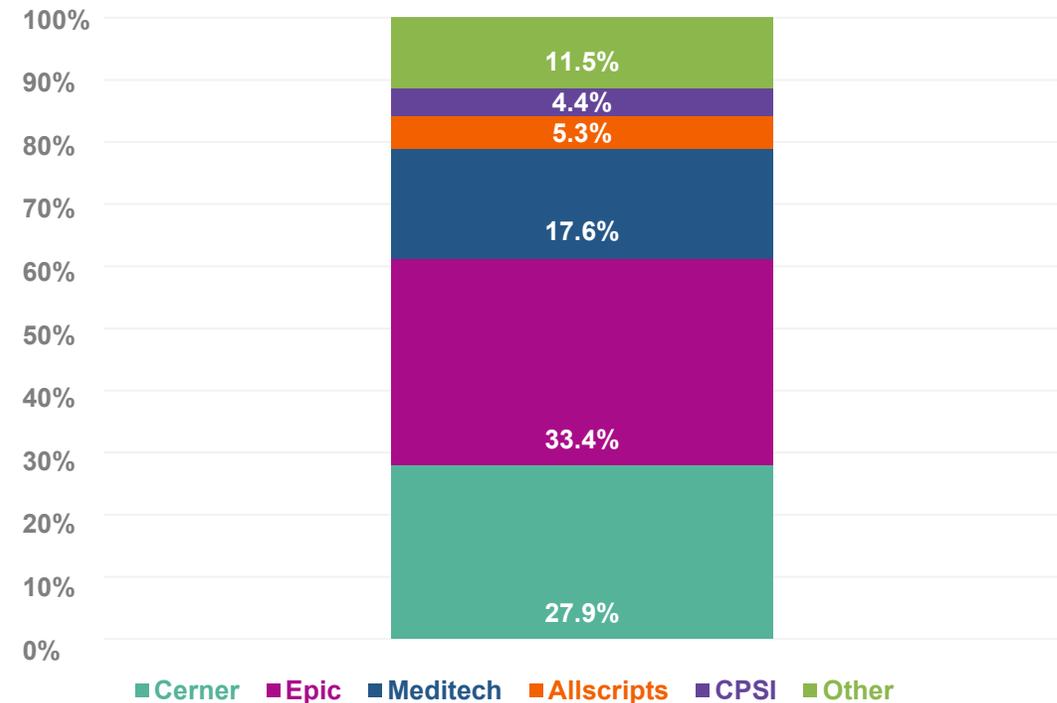
Source: *California Health IT Landscape Assessment Final Report*, February 2022 Julia Adler-Milstein et al., California Department of Health Care Services

Hospitals and Hospital Systems (continued)

Health IT Adoption

According to American Hospital Association (AHA) longitudinal surveys, the proportion of California hospitals that had adopted at least a basic EHR climbed to 96% by 2018. As of 2024, virtually all California hospitals use some type of HER.

Venders Epic and Cerner dominate the California EHR market, with over 60% share in 2019.

Structured Data Capture

Every EHR is designed to capture most patient-level health data in structured fields. Social needs and behavioral health data fields may be missing.

Data Sharing Capabilities

California hospital engagement in robust electronic data exchange — finding, sending, receiving, and integrating patient data with outside systems — increased from 7% to 59% between 2014 and 2020.

By 2020, 89% of hospitals reported sending patient data electronically, and 74% reported integrating data sent by others into their own systems.

Further growth is expected with CalAIM and the DxF, where hospitals play a critical role in providing real-time notifications and data to improve care coordination and population health management efforts.

Source: *California Health IT Landscape Assessment Final Report*, February 2022 Julia Adler-Milstein et al., California Department of Health Care Services

Provider Type: Managed Care Plans

Managed Care Plan IT Systems and Practices

% Respondents Reporting Using This IT System

- Claims system — **100%**
- Case or care management system — **100%**
- Utilization management system — **100%**
- Membership system — **86%**
- Other — **64%**
- Population health management system — **64%**
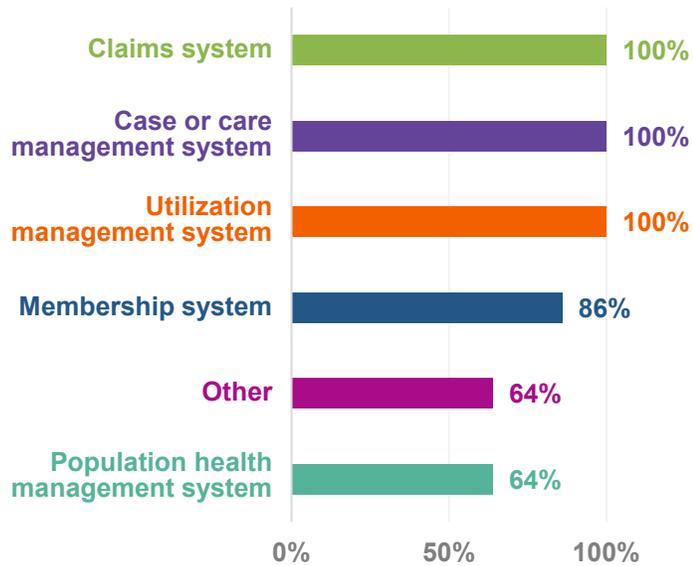
% Respondents Using These Methods to Send Data

- Mix manual and electronic methods — **64%**
- Only electronic methods — **21%**
- Only manual methods — **7%**
- Missing — **7%**
- None — **0**
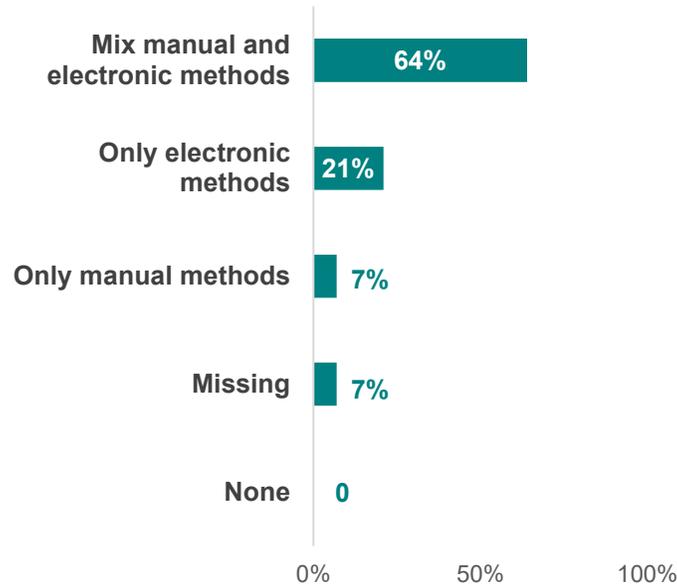
% Respondents Reporting Using These Methods to Receive Data

- Mix manual and electronic methods — **79%**
- Only electronic methods — **7%**
- Only manual methods — **7%**
- Missing — **7%**
- None — **0**
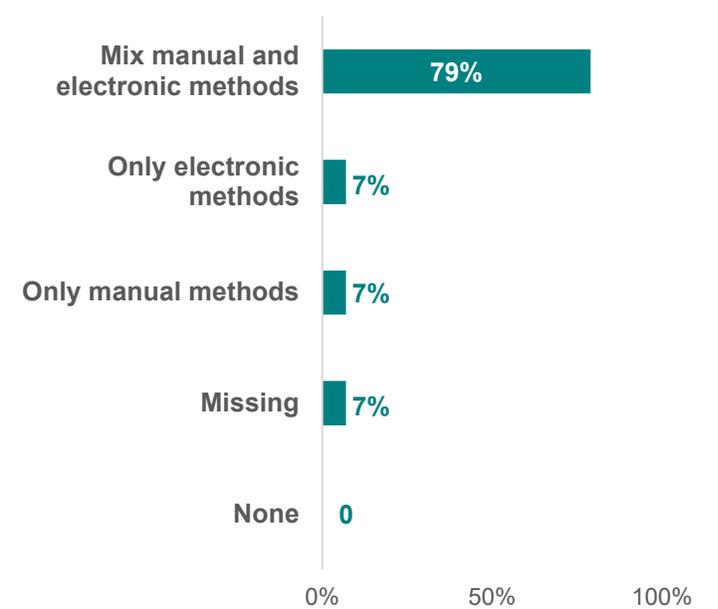
Source: California Health Information Technology Landscape Assessment — Part 2

Managed Care Plans (continued)

Health IT Adoption

MCPs typically have multiple systems to support different business needs, with primary systems for care delivery and coordination being utilization management, case management, and/or population health management systems. While some MCPs have traditional EHRs, most use platforms specifically customized for payer organizations (e.g., Altruista, Cognizant, MDK, ZeOmega).

Structured Data Capture

MCPs most commonly capture race/ethnicity (57%), language (57%), and contact information (64%) in a structured electronic format. Almost all MCPs (93%) report using national data standards in some contexts; 50% collect all DHCS SDOH priority Z codes.

Additional information may be collected in nonstructured formats: housing, incarceration, probation, employment, food, education, transportation, exposure to violence, social connections, substances, SUD, and physical activity.

Data Sharing Capabilities

The majority of MCPs use a mix of electronic and manual methods to send and receive information. Many (43%) report sharing information electronically via a National Exchange Network; 64% do so through a local or regional HIE organization. Depending on the type of network they use, 25%–50% say they share data bidirectionally. Just 21% report sending and/or making health-related information available to outside organizations using only electronic methods.

MCPs' primary data-related CalAIM concerns are standardizing how data are shared and establishing data sharing processes with nontraditional community support providers.

Source: *California State Medi-Cal Health Information Technology Plan*

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CROSS-SECTOR COMPARISONS OF DATA EXCHANGE CAPABILITIES

Cross-Sector Comparisons of Data Exchange Capabilities

▪ **It is difficult to compare the data exchange capabilities of service providers surveyed by UCSF for this report because the primary purpose, function, operations, reporting requirements, and descriptive language of these organizations are unique and varied.**

▪ **Ultimately, common terminology and approaches will be needed to make progress on data exchange measurement, design, and implementation.**

▪ **Illustrations on the following three pages attempt to compare aspects of HIT adoption, data capture, and data exchange from across sectors where possible.**

Cross-Sector Comparisons: EHR Adoption in California by Provider Type

Estimated % of Respondents Reporting Using an EHR

Bar chart values:
- State prisons: 100%
- County behavioral health/mental health plan: 98%
- Hospitals*: 96%
- School-based health centers: 94%
- Office-based physicians*: 79%
- County jails: 61%
- Medical respite: 46%
- Sobering centers: 42%
- Skilled nursing facilities*: 32%
- Substance abuse treatment facilities**: 18%
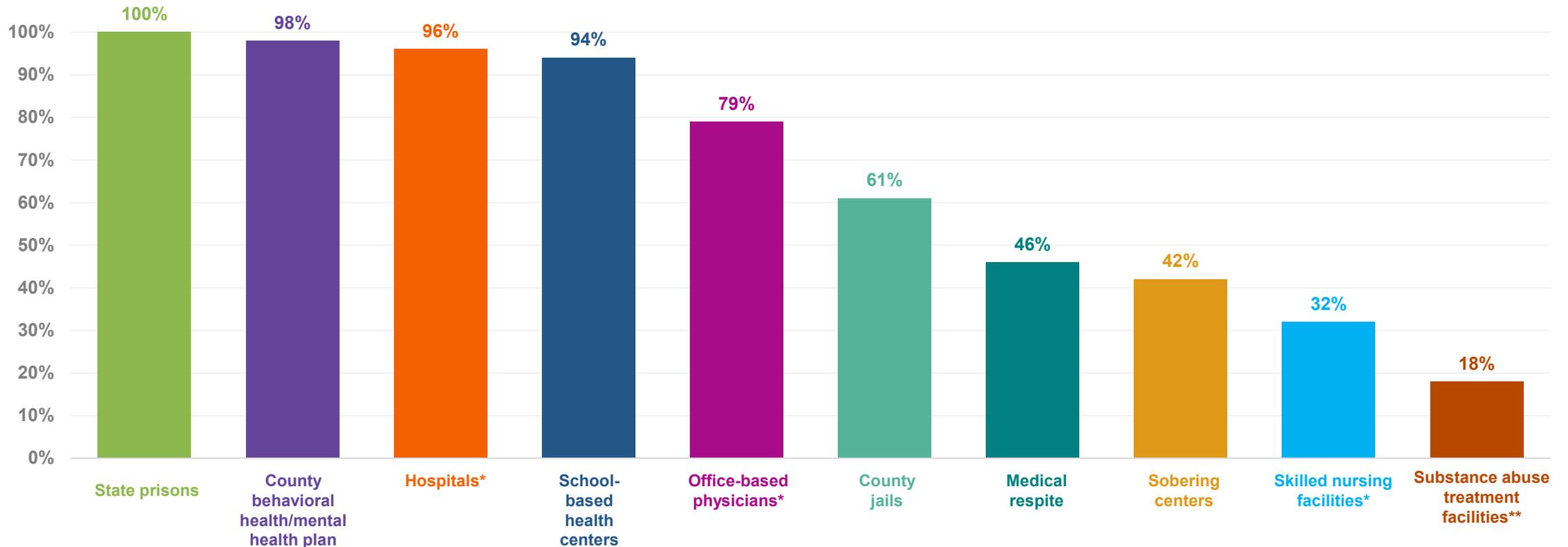
Notes and assumptions: * Adoption data provided in Part 1 of report. **Assumed 100% of California state prisons have adopted an EHR based on Part 2's qualitative interviews. Medicaid managed care plans excluded here, given the primary use of IT systems is payer-specific functions (e.g., utilization management and care/case management systems).

Cross-Sector Comparisons: Structured Data Capture

Examples of Variability in Data Element Collection

Race/Ethnicity

Estimate % of Respondents by Provider Type Collecting Structured Data

- Medicaid Managed Care Plans†: 57%
- Sobering Centers: 60%
- Medical Respite†: 69%
- County Jails: 95%
- County Behavioral Health††: 100%
- Continuum of Care: 100%
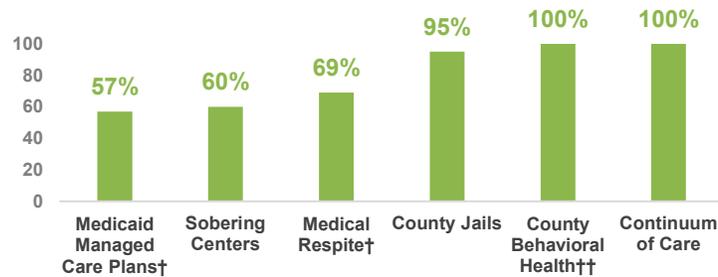
Housing Status

Estimate % of Respondents by Provider Type Collecting Structured Data

- Medicaid Managed Care Plans†: 0
- Sobering Centers: 50%
- Medical Respite†: 50%
- County Jails: 86%
- County Behavioral Health††: 100%
- Continuum of Care††: 100%
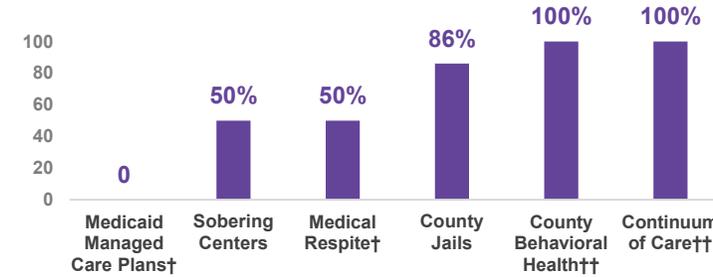
Food Insecurity and/or Access to Food

Estimate % of Respondents by Provider Type Collecting Structured Data

- Medicaid Managed Care Plans†: 0
- Medical Respite†: 25%
- Sobering Centers: 30%
- County Jails: 33%
- County Behavioral Health††: 100%
- Continuum of Care††: 100%
- In-Home Support Services††: 100%
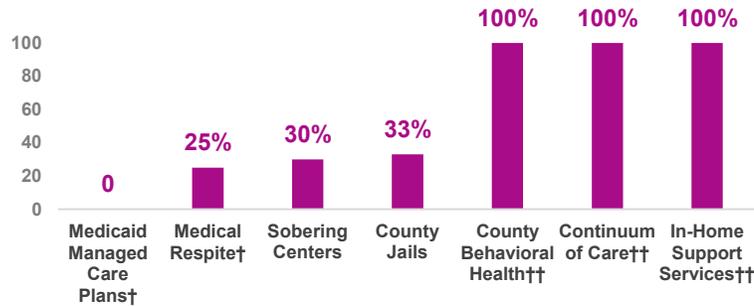
Substance Use Disorder Diagnoses

Estimate % of Respondents by Provider Type Collecting Structured Data

- Sobering Centers: 20%
- Medicaid Managed Care Plans†: 36%
- Medical Respite†: 50%
- County Jails: 100%
- Continuum of Care††: 100%
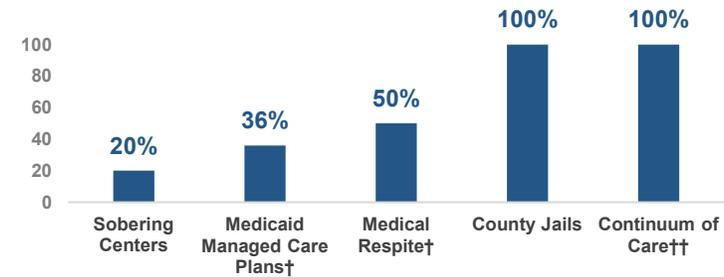
Notes and assumptions:* Missing values for provider type. † Derived from qualitative interview findings indicating: Counties routinely document basic demographic data (e.g., zip code, race/ethnicity), SmartCare enables counties to collect structured SDOH data, including housing status and food insecurity, IHSS surveys cover clients' important social needs, including access to food and transportation, CoCs are required to report client's substance use and participation in the Special Nutrition Assistance Program.

Cross-Sector Comparisons: Electronic/Automated Data Sharing,
Variability by Sector

Estimate % of Electronic and/or Automatic Method to Send Data

Esitmate % Provider Type Using Electronic and/or Automatic Methods to Receive Data

Sector	Send Data	Receive Data
Continuum of Care	100%	29%
California Hospitals	89%	82%
Sobering Centers	70%	40%
Medical Respite	69%	63%
County Jails	48%	
Medicaid Managed Care Plans	21%	7%
County Behavioral Health	20%	20%
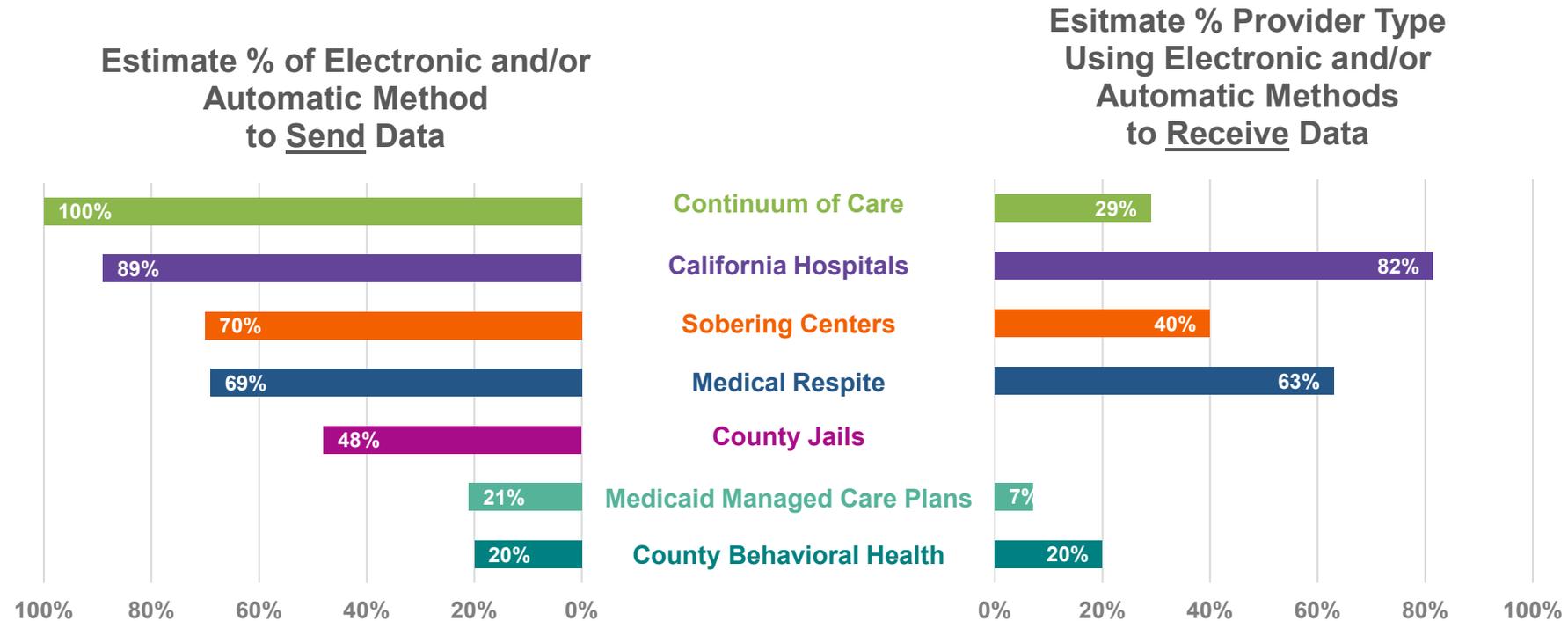
Notes and assumptions: California hospital data sharing practices sourced from Part 1 of the report. Other sector estimates derived from quantitative and qualitative research in Part 2. Some assumptions were made: **CoCs.** The 100% estimate for sending data is because every CoC is required to share data with the California Homeless Data Integration System (HDIS). The 29% estimate for receiving data is based on qualitative interviews. Two of the seven interviewed (San Diego / Imperial and San Luis Obispo) reported receiving data imports from other homeless service provider agencies, **County BH.** The 20% estimate is based on five qualitative interviews, with four interviewees reporting they are not currently able to share data electronically between their EHR and outside systems, with Los Angeles County as the exception, **Jails.** Survey respondents indicated they send data to all/most or some outside organizations, 5% and 43%, respectively. The survey did not ask about receiving data, but qualitative interviews indicated this was rare. **Sobering centers and medical respite.** Estimates are based on the sum of electronic/automatic data sharing for both methods of sending and receiving data, as each was its own item in the administered survey, **Medicaid managed care plans.** The survey asked about manual, mixed method, and electronic sending and receiving of data.