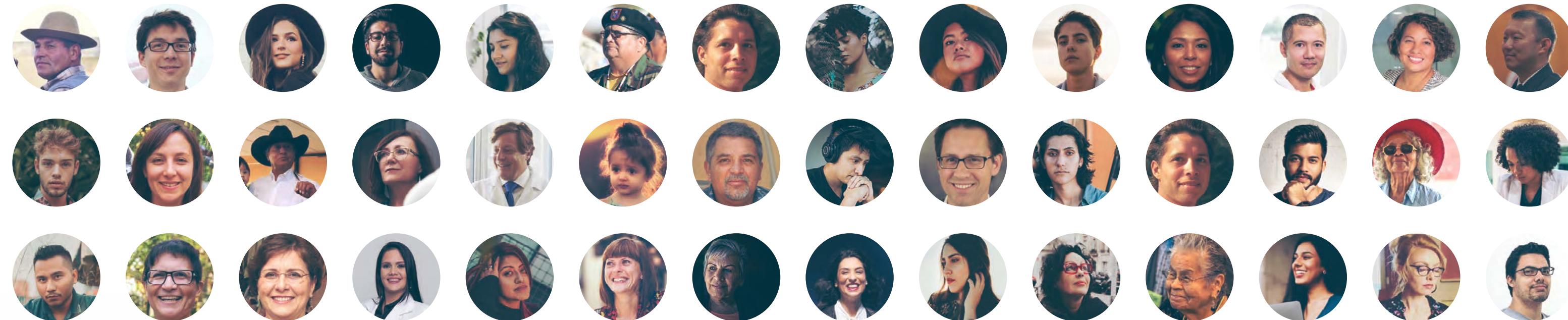




# INDIAN HEALTH SERVICE HUMAN-CENTERED DESIGN

ECOSYSTEM [SECTION 2 OF 11]



# THE I/T/U ECOSYSTEM

# FACILITY TYPES

IHS-Run Facilities

Tribal Facilities

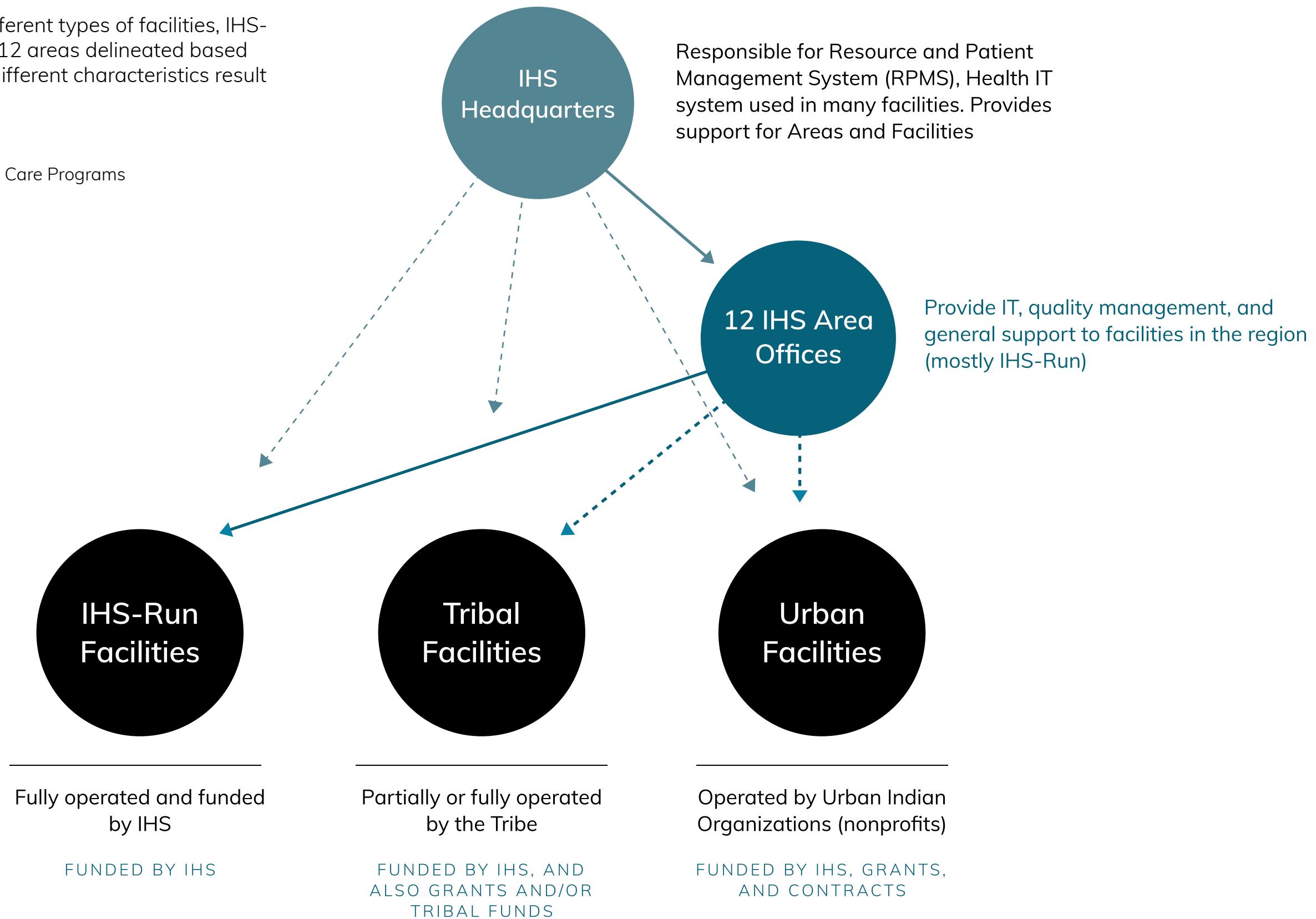
Urban Facilities

Capabilities

# The IHS Organization

The IHS Ecosystem consists of three different types of facilities, IHS-run, Tribal, and Urban (I/T/U), spanning 12 areas delineated based on community and Tribe groups. Their different characteristics result in differences in terms of:

- Funding for services
- Integration with Tribal and Urban Health Care Programs
- Entities in charge of their operations



# IHS-Run Facilities

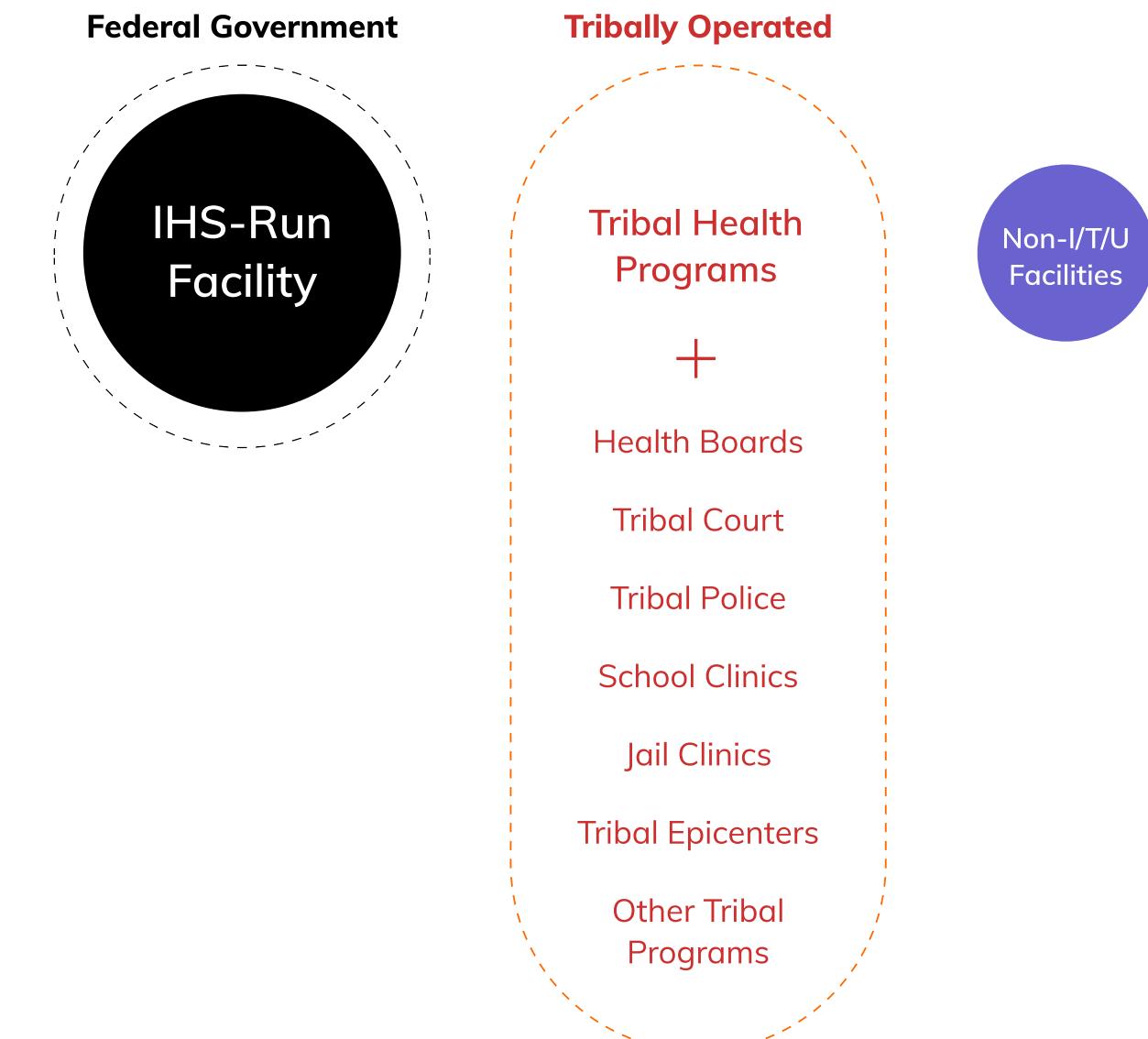
Indian Health Service-run facilities are entirely managed by IHS. Funds come from both IHS and third-party payers (mostly Medicare and Medicaid). They take input and work with communities' governing bodies, but IHS ultimately decides how they will be operated, what resources they will prioritize, etc.

These facilities often focus on primary care, offering higher levels of care through the Purchased/Referred Care program.

They often include Public Health Service (PHS) uniformed staff to cover staffing needs—however, PHS staff can get detailed for other missions at any point.

The quality of relationship between IHS-run facility leadership and Tribal leadership varies; much is owed to poor customer service, lack of referral funds, cultural prejudices, historical mistreatment of AI/AN by Western medicine (research and experimentation without consent, the weaponization of behavioral health, sterilizations without consent). Also, it takes time to develop trusting relationships with Tribal governments. High turnover means that those relationships do not have time to develop.

These facilities are currently operating with RPMS for Health IT.



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Regulated by Federal, State, and Local governments and Public Health Departments

# Tribal Facilities

Tribes may pursue compacting facilities in their reservations under the Indian Self-Determination Act. This is a multi-step process that can take several years. These facilities are allowed to take their IHS shares, complement and expand those with other funds (from grants, from Tribal businesses such as casinos and others, etc.), and run those services on their own, following rules and guidelines determined by IHS, CMS, and others.

## Eligibility

Tribes decide who is eligible for care in these facilities. They can, and often do, expand eligibility depending on the situation, such as various Tribal membership rules, non-Tribal member married to a Tribal member, Tribal family guardianship of a non-Tribal minor, or the whole local community (including all non-Tribal members) and many other situations. These facilities may allow them partial, temporary and/or total access to healthcare in tribal facilities. IHS mandates that they treat all Tribe members from federally recognized Tribes, but services may be limited depending on whether they are funded with Tribal or IHS funds.

## Primary-Care Focused

These facilities may be able to offer higher levels of care in their facilities depending on their funds. They can also use funds from the Purchased/Referred Care program for external referrals.

## Supplemental Health Insurance

Tribes can purchase supplemental health insurance to cover and/or expand services.

## Wellness Programs

Community-based and wellness programs are provided to varying degrees based on available funding through grants, and other alternate resources. These programs, which also exist in tribes with IHS-run facilities, tend to be much more integrated into the care in Tribal facilities.

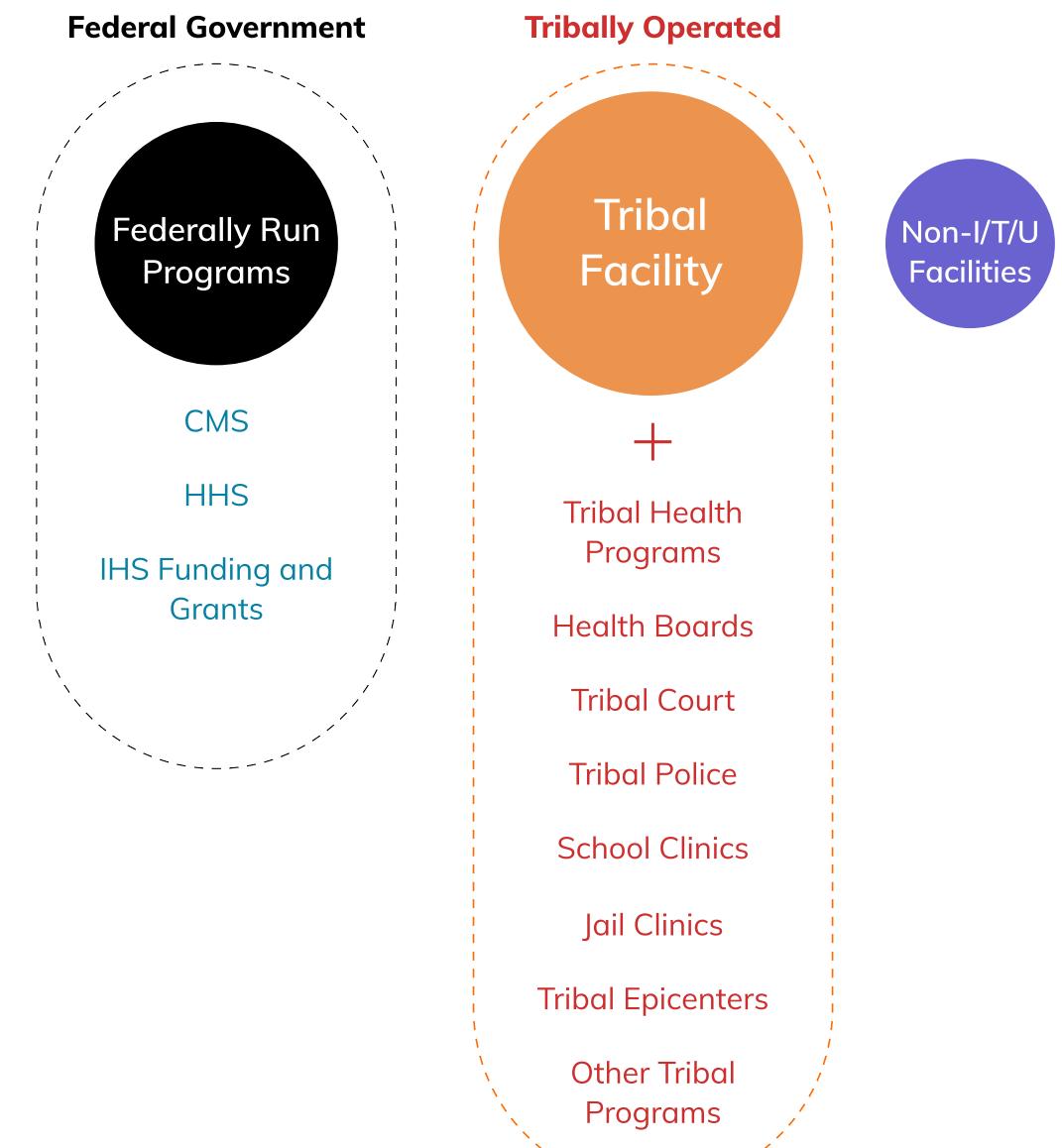
## Grant Reporting

Added responsibility over grant reporting requirements, which vary widely, complicates documentation from EHR to billing.

## Commercial Off-The-Shelf Health IT

Tribes often have migrated from RPMS to a Health IT commercial off-the-shelf system (COTS).

Tribes, but services may be limited depending on whether they are funded with Tribal or IHS funds.



Regulated by Federal, State, and Local governments and Public Health Departments

# Urban Facilities

Urban facilities are part of the Urban Indian Health Program (UIHP), and are funded through IHS, local, state, and federal grants and contracts. These facilities are managed by 41 nonprofit 501(c)(3) across the nation. Urban Indian Organizations (UIOs) define their services based upon the service population, health status, and unmet needs of the Urban Indian community they serve—so they vary widely. At a basic level, they function as community centers. They provide various degrees of healthcare services depending on their type, usually through Urban Healthcare Programs.

## Budget Issues

Urban facilities budget corresponds to 1% of the total IHS budget (plus grants), even though the majority of AI/AN patients lives in urban areas.

## Migratory Population

A large portion of target population is migratory, moving back and forth between city and reservation. They may not be aware of urban facilities.

## Poverty

A large proportion of Urban Indians live in or near poverty and face multiple barriers such as the lack of quality and culturally relevant health care services in cities. They may rely on Medicare/Medicaid, giving them options outside of the IHS system.

## Four Types of Urban Facility

### Full Ambulatory

Programs providing case management of behavioral health counseling and education services, health promotion/disease prevention education, and immunization counseling but not direct medical care services.

### Limited Ambulatory

Programs providing direct medical care to the population served for 40 or more hours per week. Some have specialists in their roster.

### Outreach and Referral

Programs providing direct medical care to the population served for 40 or more hours per week. Some have specialists in their roster.

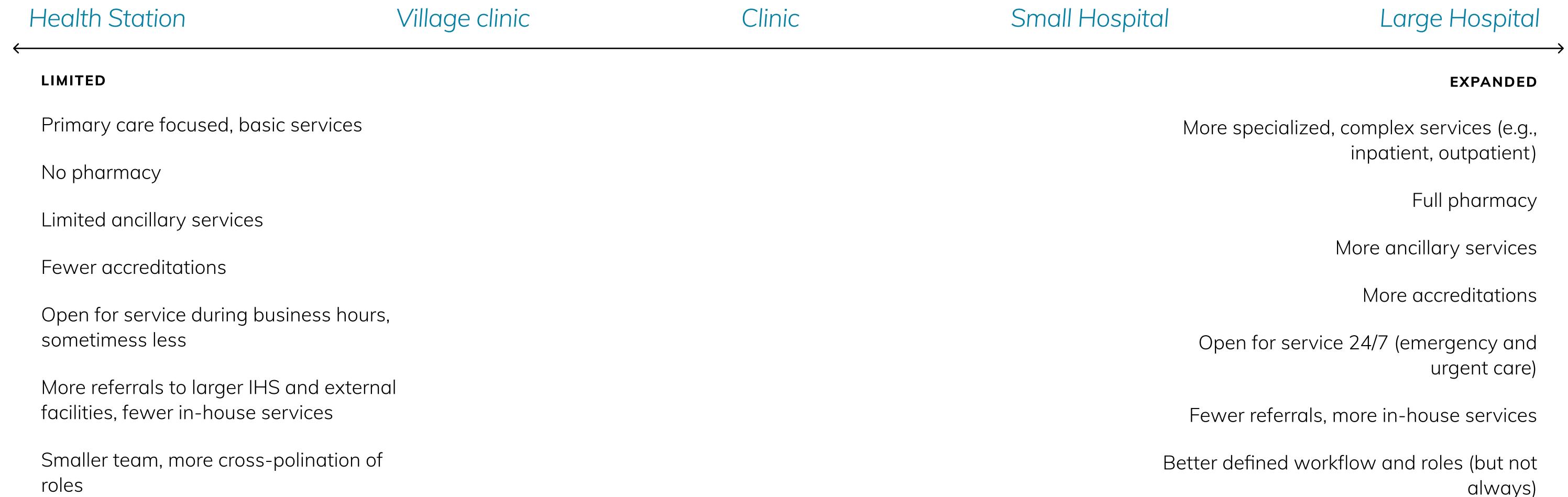
### Residential and Outpatient

Programs providing residential and outpatient substance abuse treatment, recovery, and prevention services.

# I/T/U Facilities Vary in Capabilities

Facility workflows can be widely different based on the number of providers, the skill set available, and historical funding by IHS. As a result, workflows are typically defined at the facility level, or even mandated by each individual provider on their teams.

The size of the facility may not always correlate with its ability to service the number of patients in its community.



# WHAT'S UNIQUE?

# The Treaties and Trust Obligations

## Created to Serve American Indian and Alaska Native (AI/AN) Communities

The system was modified with the unique needs of AI/AN communities in mind, fulfilling legal treaty and trust obligations between federal government and Tribes.

## IHS is the Only Federal Agency That Can Bill Medicare and Medicaid

I/T/U facilities are authorized to receive reimbursement for services provided to Medicare and Medicaid patients. Veteran Affairs (VA) and Department of Defense (DOD), which also run health care systems, do not have that ability. In addition, I/T/Us also bill the Children's Health Insurance Program (CHIP) and private insurance, including those purchased on the Health Insurance Marketplace. CMS reimburses states 100% for services provided to AI/ANs in IHS and Tribally operated facilities—this is commonly referred to as the 100% Federal Medical Assistance Percentage (FMAP). Urban facilities are reimbursed at lower rates. Due to IHS being chronically underfunded, the Medicare and Medicaid support is key to keeping facilities open.

## Eligibility

To be eligible for health benefits at the Indian Health Service, individuals must show proof of enrollment in a federally recognized Tribe or be of American Indian and Alaska Native descent.\* Tribal facilities eligibility rules are decided by their Tribal governments, varying widely.

## IHS is Chronically Underfunded

A report by the Tribal Budget Formulation Workgroup estimated a need for \$16+ billion for medical, dental, community, and public health services in 2021 to serve the population of existing users. Estimates for the whole AI/AN population make the number jump to \$28.84 billion per year.

The 2019 enacted budget appropriations for health services was only \$4.1 billion. This number has remained flat for many years without following the rise of medical inflation. IHS has the lowest federal healthcare expenditure per capita per year—in 2017 it spent just over \$4k/yr per active user, while the national health spending per capita was \$9.7k/yr.

The same report also points out that an additional \$8.77 billion would be needed to upgrade facilities to a modern state—maintaining aging buildings and equipment is a major challenge because of limited resources, and over 1/3 of all IHS hospital deficiencies are connected to the state of the facilities.

## Data Sovereignty

Tribes have the right to own health data for their population in and outside of reservations, even if IHS fully runs the facilities in their territories. Access to an individual's healthcare data across facilities needs to be managed in order to avoid breaking sovereignty.

\* More rules apply: <https://www.ihs.gov/IHM/pc/part-2/p2c1/#2-1.1>

# The Care

## Medical Records Include Cradle-to-grave

The vast legacy of historical patient health data is a result of patients living in a small community and going to the same facility throughout their lives. This data is very important and cannot be taken for granted.

This advantage is critical to mitigate high provider rotation and volume of referred care (causing external records to be difficult to obtain). Patients with Medicare/Medicaid/private insurance may have additional access to private facilities for primary care, which can result in more fragmentation of their records.

## Staffing and Retention Is Challenging

Rules require that I/T/U facilities prioritize hiring AI/AN staff, but it is hard to find staff that fulfills all requirements (e.g., education, background checks). The salary and benefits provided may not compensate for the challenges that come with remoteness. Government hiring benefits incentivize early career doctors to work for I/T/U facilities by helping to pay their student loans, but resource deficiencies and a competitive market cause them to leave once the debt has been paid off. In addition, the hiring process is usually slow, meaning that staff members may accept other offers while they wait for a response.

## Focus on Primary Care Results in a High Volume of Referred Care

Staffing and funding is limited, and the focus on primary care forces patients to travel to pursue specialized care. Patients may not have the resources to pay for travel and lodging, and even when those are covered by Medicare/Medicaid and tribal programs, the travel can be disruptive to their family and work commitments.

## Purchased Referred Care (PRC)

This program is available to patients at IHS and Tribal facilities who cannot access third-party payers like Medicare, Medicaid, and private insurance. PRC funds are limited, even though a lot of the care needs to be referred out. PRC is not available for Urban Facilities, who rely on their specific budget to provide referred care.

Eligibility requirements for PRC are more narrow. Facilities decide if they will cover a referral based on available PRC funds at any given time and on a list of services sorted by priority levels. It is not unusual for this process to take months—time varies depending on how the facility follows the process.

The PRC process and guidelines are outlined on the IHS website. For more information: <https://www.ihs.gov/prc/>

## Care Can Be Fragmented

Some reasons are: focus on primary care at I/T/U facilities and reliance on referrals to external providers for specialty care; patient access to Medicare, Medicaid, and private insurance causing patients to seek care outside of the I/T/U facility; Tribal programs that can be managed independently from the health care facility—though Tribal facilities are able to integrate those more; lack of tools to share electronically, and a health information exchange (HIE)—though this is also an issue in the private sector.

## Focus on Integrated, Holistic Health

Many facilities, particularly Tribal ones, have been able to integrate traditional healing programs and practices, home care, public health, and wellness into healthcare. This offers a number of benefits, such as adapting to the patients' culture, establishing trust with a traumatized population, and addressing and healing from historical trauma through their own culture.

# The Patient and the Community

## Social Determinants of Health

Tribes have some of the worst health disparities and economic conditions of all minorities. They are affected in high proportions by: food insecurity; poverty; adverse childhood experiences; mental health issues; trauma; and lack of interpersonal safety, employment, and financial stability. Their high need for healthcare is disproportionate to the healthcare they have access to.

In addition, these problems affect their ability to obtain access to healthcare even when it is available due to lack of personal transportation, money for gas, cellphone connectivity, lodging if they need to get care outside of their area, etc.

## Mostly Rural

Most locations are rural, with the exception of urban facilities. With rurality, comes the following challenges: staffing in such remote areas is difficult; public transportation may not be available; internet connectivity is spotty for facilities, making systems slow, and downtimes longer to be addressed than in urban settings; cellphone connectivity varies; and weather and elements can limit and delay healthcare response.

## Facilities Serve Small, Closely-knit Communities

A large portion of interviewees noted that they knew and were close to many of their patients. While many staff members noted this aspect made their day-to-day work feel fulfilling, and that it made it easier to get ahold of patients when needed, they also mentioned that patients often feel uncomfortable about knowing the staff socially. This also brings privacy challenges for patients whose relatives work in these facilities.

## Patients Speak Traditional Languages

Some Tribes speak a traditional language daily; while most patients in these Tribes speak English, they might be more comfortable discussing their health in their native language to make sure they fully capture what is being discussed. They need translator services, sometimes available in I/T/U facilities. Many patients prefer, and may only have the option to, ask their relatives to translate. This is less than ideal, as the relative is not an unbiased party. In our interviews, we heard about staff members having to diverge from their day-to-day tasks to help translate for patients.

# ARCHETYPES

# What are Archetypes?

Personas and archetypes are a distillation of design discovery insights meant to describe user needs, goals, pain points and habits—a communication tool that helps teams build empathy towards end-users, and address all use cases. They are developed through analyzing qualitative and quantitative data, and are useful when different types of users behave differently and their various use cases and needs have to be addressed.

The groupings that follow were created based on their Health IT needs, challenges and opportunities identified during interviews with staff.

# I/T/U Archetypes

## CLINICAL PROVIDERS

### Primary Care Providers

Doctors of Medicine, General Practitioners, Physician's Assistants, Nurse Practitioners, Pediatricians, Community Health Aides (CHAPs)

### Emergency, Urgent and Intensive Care

ED Doctors, Nurses, Ancillary Staff, ICU, PACU, NICU

### Specialists

Dental, Optometry, Cardiology, Trauma, Nephrology, Neurology, OB/GYN, Midwifery, etc.

## ANCILLARY HEALTHCARE

### Care Support Team

Nurses, Case Managers, Public Health Nurses, Nutritionists, Dieticians, Social Workers, Clinical Pharmacists, Health Educators

### Pharmacy

Pharmacists, Pharmacy Techs

### Behavioral Health

Therapists, Counselors, Psychiatrists, Social Workers

### Traditional Medicine

Traditional Healers, Medicine Men, Helpers, Pickers

## ADMINISTRATION

### Administrative Roles

Billing, Coding, PRC, Health Information Management, Patient Registration, Patient Benefits Coordinator, Scheduler

### Quality Management

Clinical Informaticists and Quality Health, Quality Managers, Director of Quality Healthcare, Diabetes Control

### Facility Leadership

CEO, other officers (CIO, COO, CFO, CNO—titles and distribution of roles vary), Chief Medical Officer (CMO), Health Directors, Clinic Directors

## COMMUNITY

### Patients

AI/AN population

# Primary Care Providers

Doctors of Medicine, Family Medicine, General Practitioners, Physician's Assistants, Nurse Practitioners, Pediatricians, Community Health Aides (CHAPs), etc.

They are the front line of healthcare for patients. Many of these professionals are trained in Family Medicine, which means they can provide a range of services within OB/GYN, pediatric, and geriatric care. Primary care providers can help patients navigate the health care system, including referrals to specialty care when needed.

## CHALLENGES

- | Time spent in documentation tasks due to EHR lack of usability, meeting quality measures, lack of interoperability
- | Staffing shortages cause heavy workload, no time for Health IT training
- | Lack of connectivity which impedes interoperability and contacting patients

## HEALTH IT OPPORTUNITIES

- | Efficient documentation that includes and educates the patient as part of the process
- | Interoperability with other facilities for labs, notes, imaging, and more—ability to automatically exchange data as part of the workflow
- | A central repository for patient information incorporated into medical records
- | Meaningful notifications and reminders (e.g., recommended screenings that are age- and gender-appropriate)
- | Intuitive clinical decision support through built-in workflows

Primary Care Provider's needs vary based on their experience at each facility:

### NEWBIES

Tend to be outsiders to the community due to the lack of locals with training. Applied to work in I/T/U facilities often because of school loan repayment programs. Face big lifestyle changes when they start working.

### LONG TIMERS

Well-adapted and invested in the community and the culture. They are generally passionate about the organization's focus of helping patients in need.

### CONTRACTORS

Fill in for staffing gaps for short periods of time, from a few days to a few months. There usually isn't enough time to become familiar with the community and the culture, or the Health IT system workflows and protocols.

# Care Support Team

Nurses, Case Managers, Public Health Nurses, Nutritionists, Dieticians, Social Services, Clinical Pharmacists, etc.

They typically interact with patients the most, arranging their care, making sure they are okay. Different from the private sector, they often have to manage transportation and lodging for patients who need to travel long distances for care.

## CHALLENGES

- | Incomplete patient EHR due to activity in external facilities—forces them to track down labs, imaging, and notes from specialists and from other facilities the patient has been to
- | Lack of connectivity in rural areas which impedes interoperability and contacting patients
- | Hard to track patients down (lack of permanent address, cellphone without credits, etc.)—mitigated by nature of small communities

- | Lack of true interoperability results in lots of paper documentation and duplicative tasks
- | Documentation gets in the way of paying attention to patients
- | Lack of standardization of care

## HEALTH IT OPPORTUNITIES

- | Interoperability for external data, notes, labs, imaging, etc.
- | More reliable patient contact information
- | Ability to create and customize quality measure reports to provide preventative care to populations in need
- | Ability to work on multiple charts at once
- | Ability for asynchronous entries
- | Built-in workflow support

# Care Support Team (cont'd)

Different care support roles have specific needs:

## NURSES

- Keeping track of orders that are due is challenging
- Need awareness of orders and results that require attention

## CASE MANAGERS

- Need flexible paneling abilities to help find patients due for screenings
- Heavy responsibility coordinating care of patients (appointment scheduling, transportation, lodging)
- Struggle to reach out to patients due to outdated contact information

## PUBLIC HEALTH NURSES

- Struggle to reach out to patients due to outdated contact information
- Need EHR to work offline while at visits without internet connection—asynchronous updating of charts, notes, and more
- Need more awareness of public health issues

## Integrated Care Teams

Some facilities have adopted a way of organizing teams where a couple of Primary Care Providers share a care support team, plus a nutritionist or dietician, a therapist or social worker for behavioral health, and a clinical pharmacist. This helps them pull in specialized care as needed within the context of a visit without making patients schedule a new appointment with someone they have not been introduced to yet.

# Specialists

Dental, Optometry, Cardiology, Trauma, Nephrology, Neurology, OB/GYN, Midwifery, Surgeons, etc.

Patients are often required to get referrals outside of I/T/U facilities to get the care they need. However, many facilities employ specialists, sometimes a few times per week, who travel to remote facilities to provide care. They are somewhat rare due to IHS's focus on primary care and difficulties staffing for these roles.

## CHALLENGES

Facilities do not have resources or infrastructure to support specialty clinics—and patients often have to travel to get the care they need

Patients have difficulty transitioning from primary to specialized care—lots of bureaucracy, hard to schedule

Have unique documentation needs that often require specialized EHR software (e.g., pregnancy flow chart, OB history, various types of care plans, clinical pathways)

## HEALTH IT OPPORTUNITIES

Telehealth as a tool can support much of specialty care needs in places with sufficient network infrastructure

EHR with customizations for their documentation needs OR interoperability between their EHR software and specialized software

EHR access for Telehealth providers, along with ability to complete orders remotely

Custom care plans and clinical pathways based on specialty

Better interoperability and enhanced workflows to be able to exchange charts, medications, allergies, labs, imaging, tests, and notes from other providers in the facility and outside, particularly when they get referred

# Emergency, Urgent and Intensive Care

ED/Urgent Care Doctors, Nurses, Ancillary Staff, ICU, PACU, NICU

Professionals in emergency, urgent or intensive care require that HIT is immediate and responsive. Devices must be portable or at least small enough to be used easily at the bedside.

## CHALLENGES

| Documentation requirements can get in the way of patient care but more often is delayed until later in the shift after the emergency or urgency is over resulting in incomplete charting

| Fast, urgent verbal communication between team members results in difficulty tracking orders and Health IT getting in the way of communication rather than helping

| Creating charts takes time

## HEALTH IT OPPORTUNITIES

| Health IT should focus on patient safety—support for emergency protocols, monitoring

| Support for patient safety workflows and flow of care

| Integration with smart machines such as blood pressure machines, thermometers, telemetry, fetal monitoring, IV pumps, etc.

# Diagnostic

Radiologists, Phlebotomists, Lab and Radiology Techs

Many I/T/U facilities include diagnostic departments, but capabilities vary based on staffing, equipment, and expertise.

## CHALLENGES

Staff shortages

External results often need to be sent via fax

Delays in clinical decision making without results coming up immediately on EHR

Inconsistent taxonomies

When patients are transferred to external facilities, providers often perform labs and imaging again—often the tests do not follow the patient.

## HEALTH IT OPPORTUNITIES

Interoperability that allows results from external labs to be recorded into EHR in real time, including full-resolution imaging, dates, and results

Ability for patient to have easy access to past labs and imaging to share with external providers

Better scheduling abilities

Global taxonomy

Clinical decision support following appropriate use criteria (e.g., help determine if a CT scan is necessary, make sure CMS can pay)

Lab Information System (LIS) to support blood banking and microbiology (current RPMS LIS relies on VA for maintenance)

## Needs by Diagnostic Area

### LABS

Some labs may be available in-house, but other samples need to be sent out to external facilities—need higher interoperability to be able to get results faster

Lab orders need to be faxed and cannot be sent via mail due to HIPAA compliance, requiring scanning and printing

### IMAGING

Tests that are not available in-house force patients to travel to get the imaging they need

X-ray may be available, but CT scans and MRIs can be rare

Could be staffed by techs with remote radiologists through Telehealth

# Pharmacy

Pharmacists and Pharmacy Techs

Many IHS and Tribal facilities have a pharmacy or dispensary in-house, as commercial pharmacies may be few and far between.

## CHALLENGES

- | Keeping and maintaining drug lists—no central repository
- | Keeping multiple formularies to account for different inventory
- | No traditional herbs, medicine used by traditional healers in drug lists
- | Limited inventory in remote areas
- | Opioid prescription management and control through prescription drug monitoring program (PDMPs)

## HEALTH IT OPPORTUNITIES

- | Comprehensive, centralized drug lists, with culturally appropriate items like herbs
- | Drug list and formulary management, including links to prescription discount programs
- | Support for vending-machine style pharmacies and lock boxes operated remotely
- | Support for pharmacy Telehealth for patients and staff
- | E-prescribing to outside pharmacies, inbound receiving capabilities of
- | E-prescribing of controlled substances integrated with PDMPs, including documentation and reporting of PDMP checks
- | Support and management for mail order, pick-up
- | Point of sale billing, with support for both Tribal and non-Tribal patients
- | Integration with State vaccine programs

# Behavioral Health

Therapists, Counselors, Psychiatrists, Detox Services, Behavioral Health Aides (BHAPs), Youth and Adult Treatment Centers, Integrated Team Behavioral Health Professionals

This field is one of the most needed in I/T/U facilities due to the high incidence of depression, suicide, and substance abuse in the AI/AN population. At the same time, due to its nature, it is also the field that needs the most cultural sensitivity.

## CHALLENGES

- | Providing culturally appropriate care
- | Privacy and consent controls with other healthcare professionals
- | Staffing with sufficient cultural sensitivity
- | Special needs for documenting individuals, couples, and groups

## HEALTH IT OPPORTUNITIES

- | Documentation adapted for their needs, from group sessions to individual sessions
- | A lot of Behavioral Health needs can be covered by Telehealth where staffing is a challenge and network infrastructure supports it—as long as cultural sensitivity is not compromised and the quality of the connection is good
- | EHR access for Telehealth providers, along with ability to complete orders remotely
- | Ability to work on multiple charts at once

# Traditional Medicine

Traditional Healers, Medicine Men, Helpers, Pickers

Traditional medicine is incorporated in various ways across I/T/U facilities. Some places have whole departments dedicated to the discipline, while others have one Traditional Healer who sees patients individually and helps organize group ceremonies. It is part of a holistic healthcare system at I/T/U facilities, often being incorporated into Behavioral Health, or on its own.

Interviewees from Traditional Medicine and the patients who used it both acknowledge that it may have a different role from so-called Western Medicine; it may be a resort when something very serious health-wise is happening, or when they need psychological or spiritual help.

Just like other providers, they may need to enter notes, care plans, and herb-based medicines. Practices and philosophies vary, with many being shared across Tribes.

## CHALLENGES

Sharing prescription of herb medicines with other providers—different practices use different herbs

Disclosure of patient's EHR to other providers

## HEALTH IT OPPORTUNITIES

Comprehensive drug lists that contemplate all the herbs used in their practice—to avoid drug interactions

Ability for facilities to decide what patient information from Traditional Medicine should be disclosed or kept private

Documenting ceremonial tobacco use

# Sub-Acute Care

Inpatient Rehab, Long Term Care, Skilled Nursing Facility, Assisted Living Facility, Home Healthcare, Hospice Care, Residential Treatment, Outpatient therapies (e.g. Physical/Occupational/Speech)

These services have been grouped together due to the many challenges they face around availability and staffing, particularly in rural areas.

## CHALLENGES

Struggle with no-shows—patients often don't have access to transportation to attend appointments long-term, and it's difficult to balance with other life obligations

Many of these services are available outside of tribal areas and/or far from the patients, forcing them to find transportation and lodging far from their community to adhere to treatment plans

The commitment required to participate and benefit from these services often affects not only the patient, but also their immediate family

Exchange of information between primary care providers and post-acute care teams

Sometimes services are offered in the patient's home, where internet connection isn't a guarantee

## HEALTH IT OPPORTUNITIES

Most of these services are only possible in person, but telehealth (provider-to-provider and patient-to-provider) can help compensate for some staffing challenges

Automated exchange of records in EHR about the patient between different facilities and providers taking care of them

Asynchronous documentation on EHR

# Administrative Roles

Billing, Coding, PRC, Health Information Management, Patient Registration, Patient Benefits Coordinators, Schedulers

They manage claims, referrals, and patient records (integrity and release).

## CHALLENGES

Obtaining the correct information from patients—often due to lack of interoperability

Heavily paper-based processes

Difficulty verifying check insurance/payer eligibility, enrollment status

Wide variety of billing requirements (different payers, different Medicare/Medicaid rules per state, different grants) from facility to facility based on the types of payers they can support

Wide variety of distribution of roles and responsibilities from facility to facility, based on staffing and skill set—affects workflows and standardization of processes

Low patient awareness of Patient Health Record (PHR)

Lack of coordination among different roles in patient registration, check in and scheduling, especially at large sites where roles are more specialized

## HEALTH IT OPPORTUNITIES

Tribal membership to define different levels of care eligibility

More access to a variety of payers, so that the facility can rely less on IHS

Electronic, paperless consent forms, registration, communications, scheduling, and refills

Interoperability for easier release of information processing

Ability to quickly identify patients without a third-party payer who may qualify

# Administrative Roles (cont'd)

Different administrative roles have specific needs:

## SCHEDULING

- Outdated patient contact information
- Difficulty confirming appointments with patients (lots of no-shows)
- Lots of paper-based communications to schedule appointments (patients may not have an active cellphone line at all times)
- Patients are hard to reach out to without a current address or an alternative mode of contact
- Need a Patient Portal to empower patients to schedule appointments for when it is convenient for them

## PATIENT REGISTRATION AND CHECK-IN

- Patients have a hard time understanding document requirements such as birth certificates for newborns, insurance (patients often think they do not need to provide it at IHS and Tribal facilities), and updated contact information
- Complex Tribal eligibility requirements can be hard to check—may need to call enrollment offices in other Tribes, which often does not happen
- Need ability to find patients registered in other facilities or who have not visited in years
- Need better ability to create temporary charts

## PATIENT BENEFITS COORDINATOR

- Program information and applications are disjointed
- May struggle with keeping up with all available programs and finding the right ones for patients if they have other tasks on their plate

## HEALTH INFORMATION MANAGEMENT

- Information is often distributed between different systems, and both digital and paper—it is hard to find whether the documentation requested exists
- Usage of paper in patient registration, check in, and consents results in duplicative efforts, errors, and HIPAA compliance issues

# Administrative Roles (cont'd 2)

Different administrative roles have specific needs:

## PURCHASED REFERRED CARE (PRC)\*

- Backlog in processing PRC requests caused by PRC process and long waits to schedule appointments
- Lack of funds to address all the PRC referrals
- Need ability to update patients and providers electronically on the referral progress
- Need automatic prioritization of cases for PRC board to review
- Need automated process to verify medical priorities and eligibility

## CODING

- Need electronic process for sending referral to external provider, including all EHR documentation
- Need ways to empower patient to choose provider early on in the process
- Need ability to request electronic invoice and EHR documentation from external facility for payment
  - Need fast updating of EHR with records from authorized provider

## BILLING

- Provider documentation may not fully support coding requirements
  - High burnout, repetitive work
  - Providers using "general" codes result in more work
- 
- Variable requirements from third-party payers result in claims with errors that end up being denied
  - Keeping track of payments in Accounts Receivable is challenging—need revenue cycle monitoring tools
  - Struggle with bookkeeping and accounts receivable—need account-based billing instead of claim-based, allowing for interim billing to keep books updated
  - Struggle with external facilities billing the client for referred care—should bill back to the facility, NOT the patient

\* The PRC process and guidelines are outlined on the IHS website. For more information: <https://www.ihs.gov/prc/>

# Quality Management

Clinical Informaticists and Quality Health, Quality Managers, Director of Quality Healthcare, Diabetes Control

Work closely with providers and care support staff with using Health IT to make sure quality measures are achieved, and that facility is performing the best it can.

## CHALLENGES

It is hard to have a full picture of how the facility is performing and where action needs to be taken—this issue can even affect their accreditations

Need to work and share aggregated data with external entities, such as CMS, Epi Centers, Health Boards, and Tribal Programs

Constant staff turnover in each facility makes it challenging to create standard workflows optimized for quality measure capture

Technology and hardware available are often old and not well maintained, often not able to support modern software

## HEALTH IT OPPORTUNITIES

Accountability for care via metrics

Flexible reporting tools for variable workflows

Seamless integration of reports into Health IT

Tools for monitoring progress (e.g. dashboards)

Flexible reporting abilities based on customized data input workflows

Flexible paneling abilities to help achieve care quality measure targets

Quality Assurance and Performance Improvement tools

Custom reports that allow them to work with external entities and take action based on the data—from reporting to infection control and more

Support for standardization of care based on available staff at each facility—including time for training and educational materials

# Quality Management: Reporting

Matched with the variability in staff skill set and division of roles and responsibilities, reporting requirements cause data capture workflows to vary widely from facility to facility.

The workflow development, configuration, and data export ends up being extremely onerous to the care team, and even with standardization of care, those requirements add time and work to the care process and documentation. There are several types of reports, with some varying more than others. A lot of the measures at a macro level are the same but change slightly at a micro level (e.g., denominator or user population), resulting in misalignment and duplication of reporting efforts.

Privacy is a critical factor to consider in reporting—an important part of the process is to sanitize the data when necessary so that it does not inadvertently reveal protected patient information to unauthorized parties.

## HRSA/UDS

If facilities receive financial support from HRSA, they need to report UDS measures to make sure facilities are providing quality care.

## CMS

Has multiple quality reporting programs, with different sets of quality measures: Promoting Interoperability (or Meaningful Use—Medicare and Medicaid); IQR\* (Inpatient quality reporting—Medicare only); QPP\* (Quality Payment Program—Medicare only—lack of reporting or poor results can affect payments). Medicaid is reported at the state level.

## IPC - Improving Patient Care

This program's goals are to increase QI capacity and provide technical assistance to support the implementation of the Patient Centered Medical Home (PCMH) model of care. Requires the monitoring and reporting of 21 measures to improve outcomes.

## GPRA

GPRA and GPRAMA are federal laws that require all federal agencies to integrate performance measurement into their annual budget justifications. In the Indian Health Service, the clinical measures are synonymous with GPRA reporting.

\*Use Electronic Clinical Quality Measures

# Facility Leadership

CEO, Other Officers (CIO, COO, CFO, CNO—titles and distribution of roles vary), Chief Medical Officer (CMO), Health Directors, Clinic Directors

Roles distribution varies widely in this category. Some facilities only have a CEO or Executive Director, while others have officer-level roles for various departments, depending on their capabilities, size of staff and skill set.

## CHALLENGES

It is hard to have a full picture of how the facility is performing and where action needs to be taken—this issue can even affect their accreditations

Need to work and share aggregated data with external entities, such as CMS, Epi Centers, Health Boards, Tribal Programs

Need to measure and track effectiveness on different measures based on the local community needs and local and state government requirements

## HEALTH IT OPPORTUNITIES

Customized analytics for business intelligence to report and improve outcomes: oversight, monitoring, administrative, and statistical requirements. Examples include wait times, inpatient quality reporting, opioid surveillance, National Accountability Dashboard for Quality (required for IHS-run facilities, may include other facilities that choose to share their data), and more

Panel management tools (local and facility-level immunizations by state), connection with epidemiology registries (local, state and CDC-level—such as diabetes and complications, influenza-like illnesses, STIs, and cancers)

Same needs as Quality Management staff

# Tribal and Urban Healthcare Programs

CEO, Other Officers (CIO, COO, CFO, CNO—titles and distribution of roles vary), Chief Medical Officer (CMO), Health Directors, Clinic Directors

There are several actors working closely with I/T/U facilities, sometimes dependent on the EHR, but who are not employed by I/T/U facilities. They typically are placed under various Tribal government organizations. I/T/U facilities are dependent on these programs to provide more holistic care to their patients. Tribal and Urban facilities tend to incorporate them more seamlessly, while IHS-run facilities tend to struggle integrating them due to their different governing bodies.

## CHALLENGES

Need various levels of access to EHR to get their job done—see patient information, get reports done for grants, and other tasks

Need ability to document their work onto EHR (e.g., educators who need to document they educated someone on tobacco cessation, diabetes prevention programs that need to document when someone showed up to their fitness class, etc.)

## HEALTH IT OPPORTUNITIES

Reciprocity of data between IHS and Tribal programs

Ability to enter data into EHR

## Grand and Funders Reporting

Urban and Tribal programs rely heavily on federal (HRSA, SAMHSA, AMRQ, others), state and local grants and funders to keep doors open and to provide more services to their communities, particularly around preventative and community-based healthcare. Each grant has its own definition of how to measure success, and payment relies on the successful delivery. IHS sites cannot apply for grants, but Tribal and urban facilities do.

"Other organizations don't rely on grants as much as I/T/U."

— Staff member

# Patients

A large portion of these patients suffer with housing instability, food insecurity, safety, transportation difficulties, financial insecurity, lack of employment, education, family and community support, as well as all the ramifications of these issues. Often score low on many/all social determinants of health.

It would be impossible to encapsulate the richness of situations for the AI/AN patient within the scope of this study. However the HCD team was able to capture some insights around their Health IT needs. More investigation is needed.

## CHALLENGES

- || High fragmentation of care between I/T/U and non-I/T/U facilities, so PHR is fragmented
- || Need to call for appointments and Rx refills, it takes a lot of time
- || Sometimes transient, so it is hard to provide a fixed address for communications

## HEALTH IT OPPORTUNITIES

- || Empowerment and clear guidance to make informed decisions about their health through their Patient Health Record (PHR)
- || Access to their PHR and PHR of the loved ones they care for—in easy-to-understand language
- || Online scheduling (including transport, lodging, and home care), prescription refill, and reminders
- || Guide to help them find appropriate, accessible healthcare based on their location, symptoms, and health history
- || Culturally-relevant health and wellness information

# Patients (cont'd)

## Patients by Location Type

### THE RURAL PATIENT CHALLENGES

- Experience difficult access to healthcare, particularly specialty care due to the remoteness of their locations
- Lack of cellphone connectivity in many areas
- Some, especially elders, may speak English as a second language
- Live in small, tightly-knit communities with a strong collective mindset (everyone knows everyone)

### THE URBAN PATIENT CHALLENGES

- Expect IHS to cover their healthcare as per treaty and trust responsibilities, so may resist enrolling in Medicare/Medicaid or other third-party payers
- May need more human interaction and expect less from technology
- Often migratory, living seasonally between Tribal and Urban areas
- Struggle to find culturally-sensitive healthcare
- Often living in poverty, rely on Medicare and Medicaid
- May expect more interaction with technology
- Less access to good nutrition ("food deserts") and traditional foods
- Often unaware of Urban facilities

"If I needed, I would go into the ER, and get into a lot of debt I guess"

—Urban Patient

## Caring for Loved Ones

### PROXIES

The AI/AN patient is often well-connected to their community, and has a strong sense of family. As such, parents, guardians, and custodians need to have easy access and control over their health information and their loved ones as needed, when given the permission.

# HHS / IHS Health IT Modernization

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