



# Solutions to Modernize IHS Health Information Technology

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# The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA)

**Quality Payment Program (QPP)** will base compensation to providers on:

- Patient health outcomes
- Activities that improve their clinical practices
- Efficient use of medical resources
- **The meaningful use of certified Electronic Health Records (EHRs)**

2017 is Transition Year for Medicare, will affect payments in 2019

CMS leading way, commercial payors to follow

QPP offers 2 pathways:

- **Merit-based Incentive Payment Systems (MIPS)**
  - Eligible professionals will be measured on quality, resource use, clinical practice improvement, and the ability to capture and share health information.
- **Advanced Alternative Payment Models (APMs)**
  - Value-based payment programs authorized by the ACA to pay for care given to Medicare beneficiaries. These include accountable care organizations (ACOs) that involve two-sided risk models offering not only the potential for increased payment for improving quality and containing costs, but also potential downside penalties for failing to achieve financial and quality targets

# New Standard of Care Is Challenging for I/T/U



*“It is no longer possible to deliver acceptable standards of health care without a superior level of connectivity, not just to the hospital or clinic facility but into the patient’s home as well. Patients their caregivers must be able to electronically access their health information and communicate electronically with their providers. This means connecting to personal health records and other applications made available to patients by the health care provider and its software vendors. This is not only the standard of care but a regulatory requirement.”*

- Less than 10% of homes in Indian country have broadband access and only 70% have basic telephone access. The expansion of cellular service availability has outpaced that of cable and fiber in recent years, but neither is yet sufficient to meet the level of access required for delivery of modern health care, educational, and other services.
- Network bandwidth is a key requirement to successfully provide health care services. Many IHS sites are experiencing challenges to fund the cost of the necessary bandwidth upgrades to make telehealth services successful. Approximately 75% of IHS sites are located in areas defined as ‘rural’ by the Federal Communications Commission (FCC). These rural sites pay a higher percentage of their operating budget than urban locations on monthly circuit costs. When bandwidth upgrades are required, rural IHS sites are frequently asked to fund the capital costs of these upgrades. These projects can range from tens of thousands to over a million dollars in cost, and can take years to complete. In some cases, telecommunication providers are not able to offer any upgrade options for IHS locations.
- At rural IHS sites, circuit outages and restoration times are above industry averages, due to outdated equipment and small regional telecommunication providers covering large geographical areas with long travel times and limited staff. This creates challenges and risks in relying on network connectivity to provide clinical services.



# New Standard of Care Is Challenging for I/T/U



*“If telecommunications infrastructure development is not addressed, it will lead to divergence and inconsistency in the healthcare services which are available and provided across Indian country.”*

- While each year IHS replaces some obsolete network equipment based on funding availability, there continues to be a large amount of network equipment which has reached end-of-support status from the vendor. Industrial averages for IT equipment refresh are normally within 5 years from the date of purchase. A recent analysis of the network equipment on the IHS network revealed that approximately 49 percent of the IHS network equipment is more than 5 years old, with 19 percent ten or more years old.
- During 2016, IHS upgraded network bandwidth at over 50 locations. IHS is moving away from slow speed circuits such as T1 lines (1.5Mbits) to Ethernet circuits which offer bandwidth in the 10 to 100Mbits range. To help fund the monthly recurring circuit costs associated with these upgrades, IHS is increasingly leveraging the financial support provided by the Healthcare Connect Fund (HCF). The HCF is an FCC program to provide rural healthcare providers with financial support for bandwidth charges.
- However, large numbers of IHS facilities do not currently have sufficient bandwidth to offer telehealth and related services. Approximately 50% of the IHS sites are still depending on circuit connections based on one or two T1 lines (3Mbits). Their circuits are constantly saturated with staff experiencing slow response times when using traditional IT applications. The addition of telehealth and mobile health services is not an option at these locations.

# Telecommunications Infrastructure Requirements

- A robust telecommunications infrastructure is critical to a modern health care delivery system, not just for providers but for patients and their families as well.
- The vast majority of IHS and tribal health care facilities are in rural locations with connectivity that is much slower and less reliable than that available in urban settings.
- Capabilities such as telehealth, patient access to records, staff and patient education, clinical decision support, and transmission of medical data and images, are severely hampered by bandwidth insufficiency.
- Upgrading bandwidth can be extremely costly and often must be paid from the facility's health care operations budget.
- In some cases, local telecommunications providers are simply unable to provide the upgrades needed for the health care facilities.
- An unacceptable proportion of network IT equipment at IHS facilities has exceeded reliable operating lifespan and vendor support, but insufficient funds exist to upgrade this equipment.

# Telehealth Requirements

- Several telehealth initiatives have been very successful in Indian country, but are hampered by both technical and organizational issues.
- Bandwidth at rural locations severely limits the ability to deliver telehealth services.
- The IHS has not been funded to support a national telehealth program that would offer both clinical and technical leadership, best practices and analytics.
- Additional funding of \$75 million per year is needed for a fully capable telehealth program. These would have to be new resources, as the agency has no capacity to transfer dollars from other programs to support telehealth. Operational costs would be augmented by third party revenues generated from telehealth encounters, but these revenues will not be sufficient to enable the telehealth program to exist without additional appropriations.
- The IHS recently awarded a large contract for tele-emergency and other specialty telehealth services in the Great Plains Area; however, equal investments must be made in the rest of Indian country who suffer similar issues of poorly resourced facilities and lack of capacity to bring up standards of care to minimal level of safety, much less to meet national accreditation standards.

# Biomedical Equipment Requirements

- Funding for upgrading and replacement of outdated biomedical equipment at IHS facilities is only about a quarter of what is needed. The current inventory of biomedical equipment at IHS facilities is valued at approximately \$500 million. This does not include equipment located at tribally-operated facilities, which are far more numerous. According to the American Hospital Association, medical equipment has a typical lifespan of five to six years. This means that the IHS should budget \$90 million annually for biomedical equipment upgrades and replacement at federal facilities. This limited funding has only been able to replace the very oldest equipment.
- Aging biomedical devices put patient safety at risk. Most IHS facilities continue to use outdated health technology with unacceptable probability for failure and consequent risks to patient safety.
- Adding to the urgency at this point in time is the fact that between 2009 and 2012 the IHS leveraged a portion of Recovery Act and HITECH Act dollars to refresh a portion of its outdated biomedical equipment inventory. Those devices have now reached or exceeded their useful life and must be replaced.
- The advanced technical capabilities of modern biomedical equipment introduce complexity both for integration into existing networks and for cybersecurity, requiring an additional layer of acquisition planning, monitoring and governance for biomedical purchases.
- Recurring funding earmarked for biomedical equipment should be increased by no less than \$150 million per year, including funding that will be distributed via the tribal shares process (Note: compare these funding estimate with FAAB report and/or reference FAAB report)

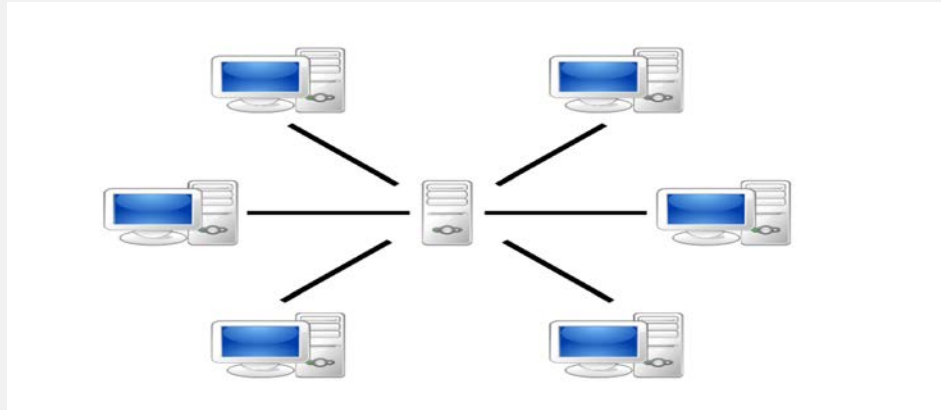
# Health Information System Requirements

- The IHS Resource and Patient Management System (RPMS) is an enormously powerful and successful comprehensive health information system.
- The RPMS has outgrown the agency's ability to support and enhance it due to flat IT funding and the withdrawal of tribal IT shares by large tribes opting for commercial solutions to meet their own requirements.
- Without additional funding for the enhancement and modernization of RPMS, health care services and patient safety throughout Indian country will be increasingly at risk.
- Any "rip and replace" strategy for RPMS would be incredibly expensive: Est. \$1-3.5B
- A more realistic HIT budget increase of at least \$75 million per year for application development would allow IHS to modernize RPMS and enable advanced mobile health technologies. Additional increases to support local workforce development, training and support must also be considered.
- A similar investment must be made for Tribal Information Systems

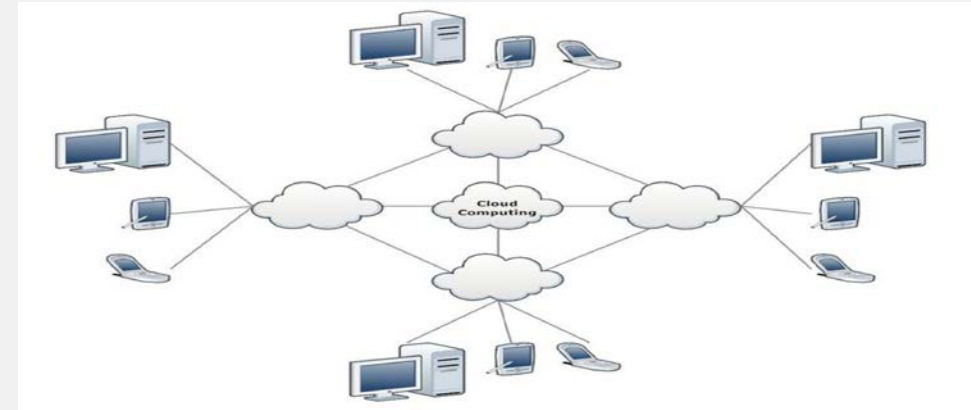


# Certified EHR Options for I/T/U

## LEGACY SYSTEMS



## CLOUD SYSTEMS



IHS RPMS Open Source Solution:

**Key Selling Point: Clinical Data Capture & Reporting (iCare)**

Can pull UDS reports for Dually-funded HRSA CHC Sites

Late Development of Third Party Billing Package

IHS/Tribes control development - Issue with Bureacracy

Commercial Off the Shelf Solutions: Cerner, Epic, Next Gen, others

**Key Selling Point: Third Party Billing Package**

Clinical Data/UDS Reporting - in Development

IHS represents a smaller % of Users - Limited input

Emerging Web-based Solutions: Care Cloud, Azure, Athena Health etc.

Simple and flexible hardware requirements. Any device that has a web browser and an internet connection

No backups are required (data is always backed up in several locations) - if the clinic burns down, you still have your data

Updates are automatic. To receive them the webpage simply needs to be refreshed. This allows for updates to happen regularly, without interrupting workflow. This means cloud software is agile and can be developed faster.

Advantage of the cloud is its "eco-system". Every day more and more products are entering the cloud. Many of these products can be bolted onto each other via integration. This allows software companies to focus on what they're good at, and then integrate with other software products that dedicate their business resources to solving a different business problem.

# Other Policy Opportunities

## Presidential Executive Order on Enforcing the Regulatory Reform Agenda (February 24, 2017)

Each Regulatory Reform Task Force shall evaluate existing regulations (as defined in section 4 of Executive Order 13771) and make recommendations to the agency head regarding their repeal, replacement, or modification, consistent with applicable law. At a minimum, each Regulatory Reform Task Force shall attempt to identify regulations that:

eliminate jobs, or inhibit job creation;

are outdated, unnecessary, or ineffective;

impose costs that exceed benefits;

create a serious inconsistency or otherwise interfere with regulatory reform initiatives and policies;

are inconsistent with the requirements of section 515 of the Treasury and General Government Appropriations Act, 2001 (44 U.S.C. 3516 note), or the guidance issued pursuant to that provision, in particular those regulations that rely in whole or in part on data, information, or methods that are not publicly available or that are insufficiently transparent to meet the standard for reproducibility; or

derive from or implement Executive Orders or other Presidential directives that have been subsequently rescinded or substantially modified.

In performing the evaluation described in subsection (d) of this section, each Regulatory Reform Task Force shall seek input and other assistance, as permitted by law, from entities significantly affected by Federal regulations, including State, local, and tribal governments, small businesses, consumers, non-governmental organizations, and trade associations.

When implementing the regulatory offsets required by Executive Order 13771, each agency head should prioritize, to the extent permitted by law, those regulations that the agency's Regulatory Reform Task Force has identified as being outdated, unnecessary, or ineffective pursuant to subsection (d)(ii) of this section.

## Presidential Executive Order on a Comprehensive Plan for Reorganizing the Executive Branch (April 25, 2017)

Section 1. Purpose. This order is intended to improve the efficiency, effectiveness, and accountability of the executive branch by directing the Director of the Office of Management and Budget (Director) to propose a plan to reorganize governmental functions and eliminate unnecessary agencies (as defined in section 551(1) of title 5, United States Code), components of agencies, and agency programs.

In developing the proposed plan described in subsection (c) of this section, the Director shall consider, in addition to any other relevant factors:

whether some or all of the functions of an agency, a component, or a program are appropriate for the Federal Government or would be better left to State or local governments or to the private sector through free enterprise;

whether some or all of the functions of an agency, a component, or a program are redundant, including with those of another agency, component, or program;

whether certain administrative capabilities necessary for operating an agency, a component, or a program are redundant with those of another agency, component, or program;

whether the costs of continuing to operate an agency, a component, or a program are justified by the public benefits it provides; and

the costs of shutting down or merging agencies, components, or programs, including the costs of addressing the equities of affected agency staff.

# Immediate Action



Recommend that a joint Tribal-Federal think tank be immediately established to guide an independent expert analysis of the program development requirements and return on investment cost-benefit of RPMS as the IHS IT solution, along with an analysis of alternative available solutions. Also provide recommendations under Executive Orders to reduce barriers for future HIT development and deployment. This think tank should be directed to have its analysis complete within 6 months of its first convening.

# The Time is Now!

A photograph of a group of diverse children, including a young girl in the foreground, looking intently at a computer screen. The image is used as a background for the text overlay.

**IMAGINE IF YOU COULD HELP ELIMINATE  
THE DIGITAL DIVIDE**

- Better & Safer Health Care for Our People*
- *Increased Efficiency & Productivity of Care Providers*
- Raise Standards for Quality of Care in Tribal Health*
- Financial Incentives with CMS Reimbursements*
- Health Equity for our Tribal Communities & Promise for a Brighter Future*



WHAT WOULD WE NEED TO CHANGE TO IMPROVE THE WAY WE DO BUSINESS WITHIN OIT?