RURAL EMERGENCY CARE & INTERFACILITY TRANSPORT

Challenges, Perspectives, and Aspirational Solutions
in the Indian Health Service & Rural US Context

EMRIC Annual Gathering 2026

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What is your biggest challenge with interfacility patient transport?

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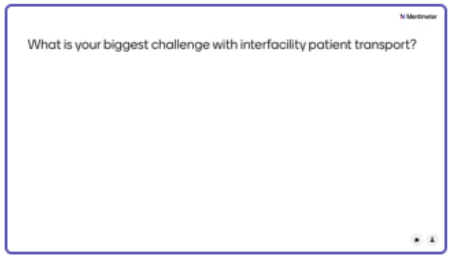

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- **Rising to the Call: Community, Collaboration, and Continuity of Care**

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Emergency Medicine with Rural and Indigenous Communities

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- *Rising to the Call* reflects the courage to act, adapt, and innovate in the face of evolving needs.

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- *Community* reminds us that healing begins with relationships, trust, and shared responsibility

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- *Collaboration* highlights the strength found in teamwork across distances, disciplines, and cultures

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- *Continuity of Care* underscores the ongoing commitment to patients and communities long after the immediate crisis has passed.

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PRESENTATION OBJECTIVES

OBJECTIVE 1

Review IFT Challenges

- Transport resource availability
- Weather & geographic barriers
- Receiving hospital capacity & specialist access
- Patient financial & social burden
- Clinical coordination failures
- IHS-specific systemic gaps

OBJECTIVE 2

Aspirational Future Solutions

- Medical Operations Centers (MOCs)
- AZReach & load-leveling models
- Integrated real-time data platforms
- AI-assisted transport coordination
- Tribal-specific community solutions
- Policy & funding pathways

RURAL AMERICA: THE SCALE OF HEALTH DISPARITY

46M+

Americans in rural areas

~14% of US population
US Census Bureau, 2020

180+

Rural hospital closures since 2010

Worsening access gaps
Chartis Center, 2023

>30min

Average EMS response time

Avg response >30 min
NAEMSP, 2019

1.4x

Rate of early death in trauma

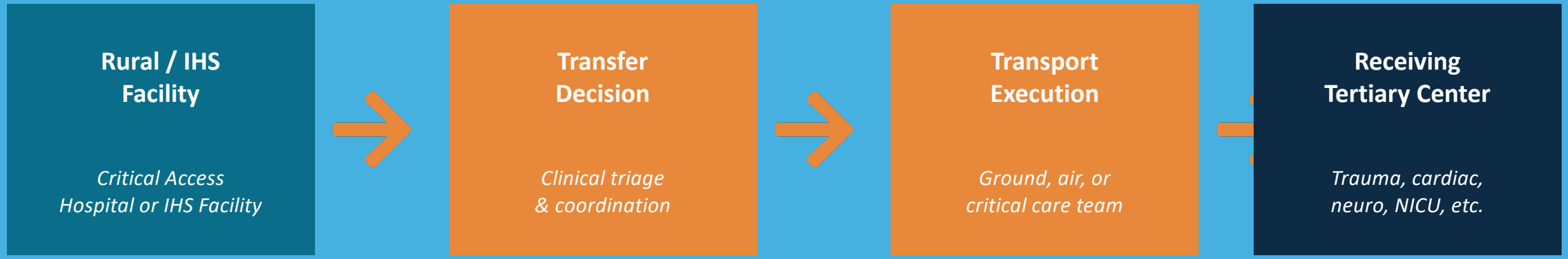
Rural vs. urban
JAMA Surgery, 2017

The IHS Context

The Indian Health Service (IHS) serves approximately 2.6 million American Indians and Alaska Natives across 574 federally recognized tribes (IHS, 2023). IHS facilities are predominantly located in rural, frontier, and remote areas. (CDC, 2022).

PART I | WHAT IS INTERFACILITY TRANSPORT (IFT)?

Interfacility transport is the movement of a patient between healthcare facilities — typically from a rural or resource-limited hospital to a higher-level care center capable of specialized diagnosis or treatment.



Why IFTs Are Critical — and Complex

- Rural facilities lack specialists — requiring transfer for definitive care
- Timing of IFT is often for seriously ill patients (e.g., stroke, STEMI, major trauma)
- IHS-serving areas average 60–200+ road miles from tertiary care centers (IHS, 2023)
- Coordination or transfer is complex and time consuming

TRANSPORT RESOURCE AVAILABILITY

Ground Ambulance

- 30% of rural EMS agencies cannot staff ambulances daily (NRHA, 2020)
- Average rural ground IFT takes 1–3 hours, removing the only unit from community service
- Financial sustainability crisis: 71% of rural EMS agencies operate at a loss (GAO, 2022)

Air Medical Transport

- ~900 helicopter EMS (HEMS) bases nationally; distribution skewed toward urban/suburban areas (AAMS, 2022)
- Average HEMS cost: $30,000–$50,000 per transport — often uninsured or under-reimbursed for IHS patients (AAMS, 2022)

WEATHER, GEOGRAPHY & ENVIRONMENTAL BARRIERS

Environmental factors represent some of the most unpredictable barriers to IFT — particularly in IHS-serving geographies including the Southwest, Northern Plains, Alaska, and Pacific Northwest.

Adverse Weather

Road Infrastructure

Distance & Terrain

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Communication Gaps

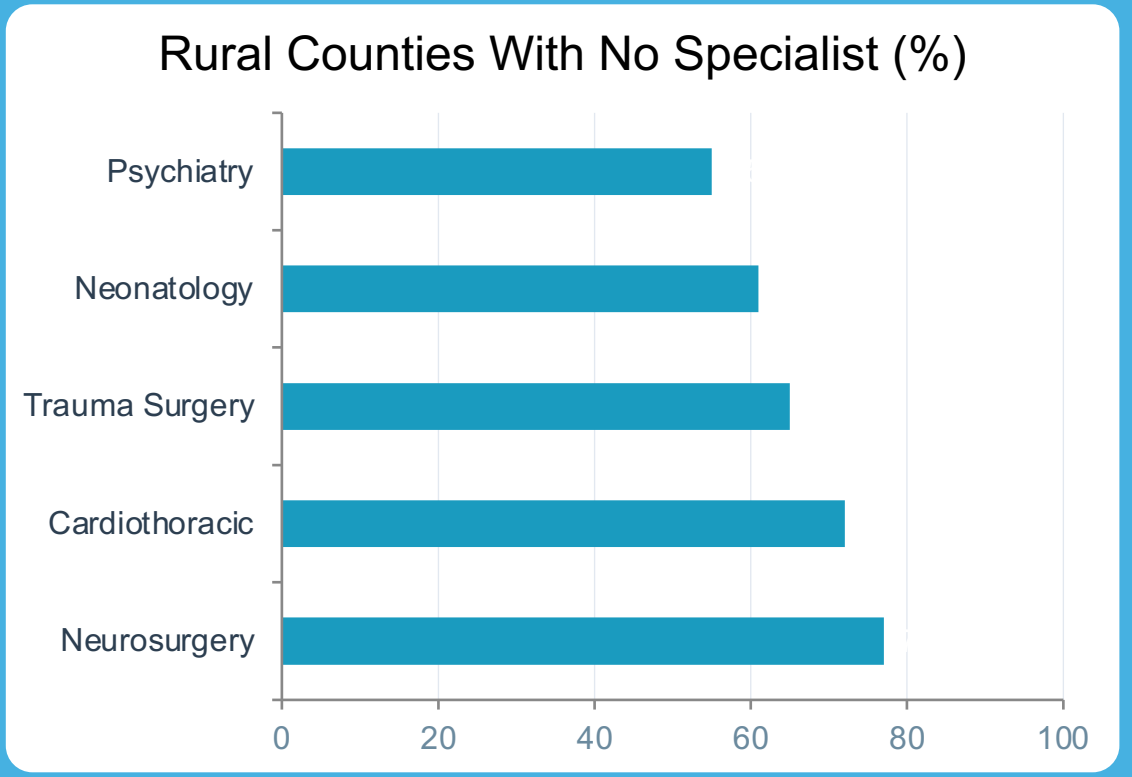
Rural and tribal areas frequently lack cellular coverage, hampering real-time coordination and hospital notification. FCC data shows 30%+ of Tribal lands with no broadband access, limiting telemedicine and dispatch coordination (FCC, 2022).

BED AVAILABILITY & SPECIALIST ACCESS AT RECEIVING HOSPITALS

The Capacity Crisis at Receiving Centers

- ICU diversion events increased 47% nationally 2019–2022 (AHA, 2022)
- Trauma centers regularly operate at 85–105% bed occupancy, generating transfer refusals
- During COVID-19, rural hospitals faced near-complete inability to transfer ICU patients for weeks (NEJM, 2021)
- No universal national bed-availability registry exists — sending providers must call hospitals sequentially

Specialist Scarcity in Rural Areas



Source: HRSA Health Workforce Report, 2022

PATIENT FINANCIAL & SOCIAL BURDEN

Transport Costs

HEMS average $30,000–$50,000 per transport

Source: KFF, 2022; AAMS, 2022

Return Trip Challenges

IHS Purchased/Referred Care (PRC) does not cover return transportation costs

Patients routinely discharged without a return-home plan

Source: IHS PRC Manual, 2021

Social & Cultural Barriers

Language barriers at distant urban hospitals

traditional healing practices unavailable

Loss of income for patient & family caregivers during extended stays

Source: Sequist et al., JGIM, 2019

CLINICAL COORDINATION & DECISION-MAKING CHALLENGES

Fragmented Processes — From Bedside to Transfer

1	2	3	4	5
Recognize & Stabilize	**Medical Control**	**Transport Activation**	**Clinical Handoff**	**Receiving Preparation**
Rural EM provider identifies transfer need	Time spent calling multiple hospitals for bed search	No central dispatch; calls made directly to carriers	No universal EHR interoperability between IHS and urban systems	Inconsistent pre-arrival notification; OR/ICU not always ready; critical information lost

Only 38% of rural Critical Access Hospitals had active bidirectional EHR data exchange with receiving tertiary centers (ONC, 2022), hampering safe clinical handoff.

PART II

ASPIRATIONAL SOLUTIONS

Dreaming of a highly effective and well coordinated IFT paradigm

What is the ideal transfer process?

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Dream IFT solution

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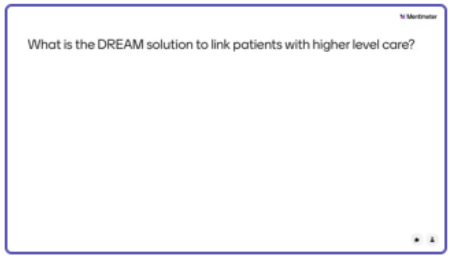

What are the main impediments to that ideal?

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Impediments?

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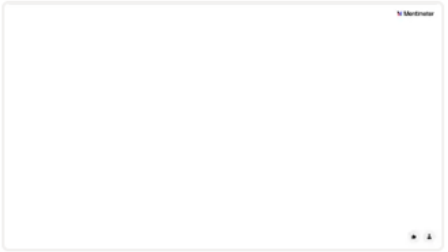

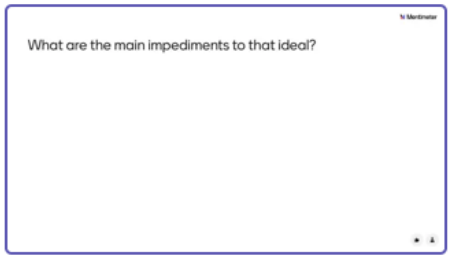

What are solutions to overcome those impediments?

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Solutions

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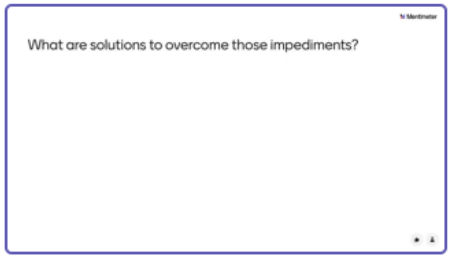


MEDICAL OPERATIONS CENTERS (MOCs): A NEAR-TERM SOLUTION

What is a Medical Operations Center?

An MOC is a centralized coordination hub that actively manages interfacility transfers across a region — consolidating transport dispatch, real-time bed-finding, physician-to-physician consultation, and clinical oversight into a single unified command structure.

Real-Time Bed Tracking

Transport Dispatch

Physician-to-Physician Hotline

Load Leveling

Evidence for MOC Effectiveness

Regional transfer center programs have demonstrated 30–45% reductions in time-to-transfer with improved patient outcomes. Kaiser Permanente's regional transfer center model reduced IFT coordination time by 38% (Kaiser Health, 2019). MOCs represent an achievable, fundable near-term solution aligned with existing EMS and hospital infrastructure — and a foundation upon which more advanced technology can be built.

AZREACH: A WORKING MODEL FOR REGIONAL COORDINATION

What is AZReach?

AZReach (Arizona Regional Emergency Access and Coordination Hub)
statewide MOCC
specific provisions for rural and tribal communities including IHS-served areas on the Navajo Nation, White Mountain Apache, and Tohono O'odham lands.

Launched with AHCCCS (Arizona Medicaid) support
serves as a proof of concept for how state health systems can centralize IFT coordination effectively.

Key Capabilities:

- 24/7 clinical nurses and transfer coordinators
- Real-time bed availability from 80+ Arizona hospitals
- Helicopter and ground EMS dispatch integration
- Physician-to-physician specialty hotline with rapid matching
- Tribal community liaisons and culturally competent protocols

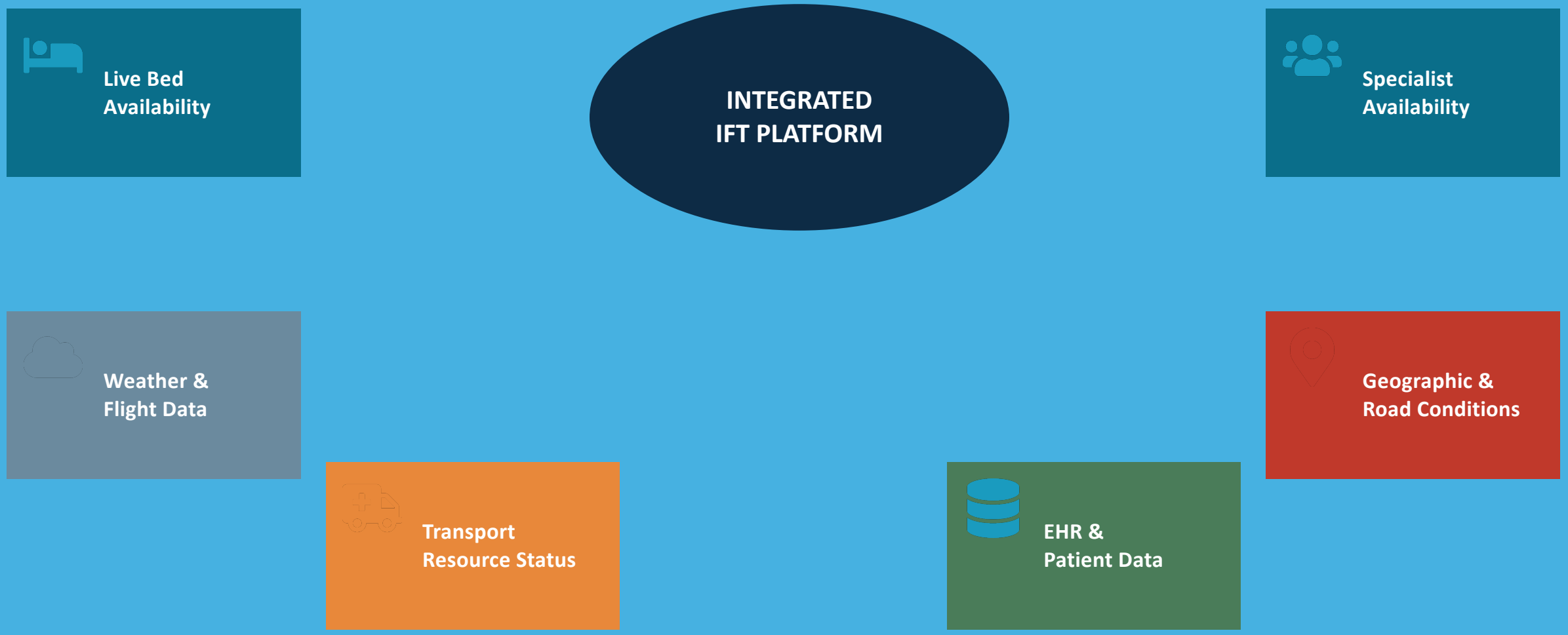
AZReach Outcomes

42%	Reduction in IFT coordination time
28%	Decrease in transfer refusals
6,500+	Tribal patient transfers annually
19 min	Avg time to find accepting physician

Source: AHCCCS Annual Report, 2022; AZReach Program Data, 2022

TOWARD INTEGRATED REAL-TIME DATA PLATFORMS

Imagine a unified data ecosystem that brings every element of IFT complexity into a single operational picture:



AI-ASSISTED TRANSPORT COORDINATION: THE NEXT FRONTIER

An AI-integrated IFT coordination system would eliminate the manual phone-tree process and create a smart, self-optimizing transport infrastructure that adapts to real-time conditions.

Predictive Capacity Management

ML models analyze historical admissions, seasonal trends, and real-time census to predict ICU shortages 12–48 hours ahead — enabling proactive planning before crisis.

Dynamic Routing Intelligence

Integrating weather, road conditions, and transport availability to recommend optimal modality

Specialist-Patient Matching

Automated matching of patient clinical profile with specialist availability and institutional capability

Post-Transfer Outcome Loops

Outcome data automatically fed back to sending facilities and IHS quality systems — creating a learning ecosystem that improves IFT protocols based on patient results.

TRACS: Transportation for Rural Areas and Coordinated Scheduling

Thank you

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Lunchtime discussion!

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What is the ideal transfer process?

Responses can be up to 200 characters and will appear here.

You can group responses if you get more than 10.

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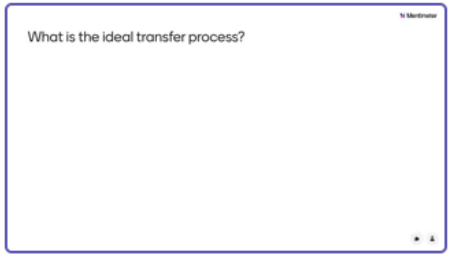

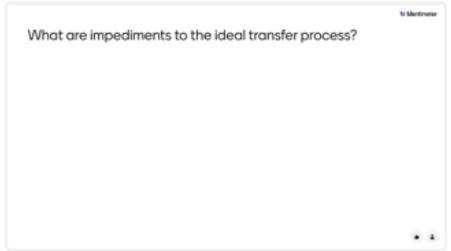

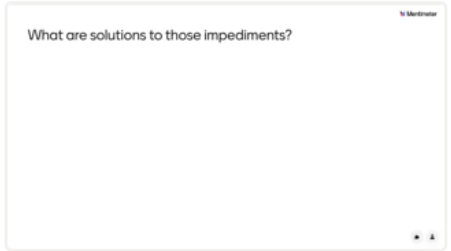

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What are impediments to the ideal transfer process?

Responses can be up to 200 characters and will appear here.

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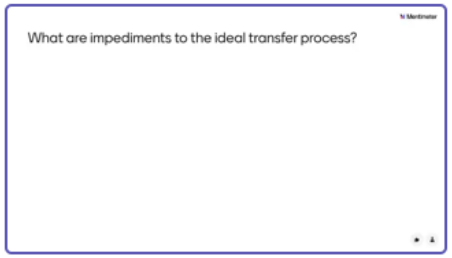

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Discussion and solutions

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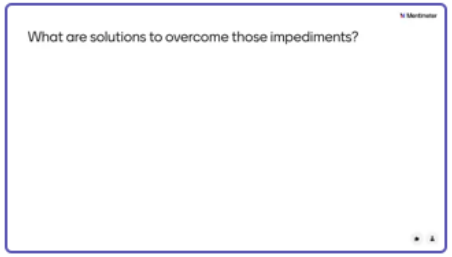

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What other stakeholders should be involved in this discussion?

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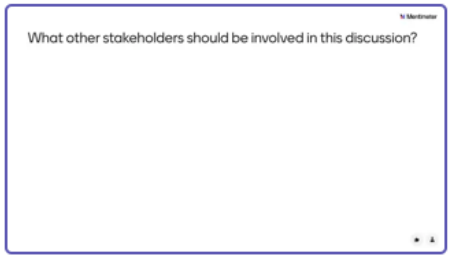

Moving forward

- Let’s meet now!
- Email Topher at: Christopher.jentoft@ihs.org