



Supporting Healthcare Education in Rural Communities

Moderator – Cindy Hamra, JD, MA

Alaska Family Medicine Residency/Bethel YKHC collaboration –

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Alaska Psychology Program – Rebecca Robinson, PhD

Full Circle Health Magic Valley Residency – Josh Kern, MD, MBA

Telemedicine – John Scott, MD, MAC

UW Medicine

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ACADEMIC, RURAL AND
REGIONAL AFFAIRS



Supporting Healthcare Education in Rural Communities: Alaska Family Medicine Residency

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Program Director, Alaska Family Medicine Residency
DIO, Providence Alaska
Family Medicine with OB

UW GME Summit
April 26, 2024

Alaska Family Medicine Residency (AKFMR)

- Only residency that's in Alaska for all years of training
- Sponsored by Providence Alaska Medical Center and Providence Medical Group Alaska
- Started 1997
- 12-12-12 program
- Founded with goal of preparing family medicine doctors to practice in rural Alaska, to help retain doctors in rural communities
- Now we say we will prepare you to practice full scope family medicine anywhere, particularly in rural Alaska
- Majority of Alaska is served only by family doctors (some say 90%)

Unique Alaska factors

- Very few roads
- Locations have small populations (2023 AK Dept Labor & Workforce Development)
 - Alaska: 737,000 people
 - Anchorage: 300,000
 - Mat-Su Borough: 110,000
 - Juneau, Fairbanks : 30,000 each
 - Sitka, Ketchikan: 9,000 each
 - Kenai: 8,000
 - Bethel, Kodiak: 6,000 each
 - Soldotna: 5,000
 - Unalaska: 4,000



Rural training and eventual rural practice

Family Medicine Residencies: How Rural Training Exposure in GME Is Associated With Subsequent Rural Practice. *Journal of Graduate Medical Education*, 2022 Aug; 14(4): 441–450

- Rural exposure during FM residency training is associated with a 5- to 6-fold increase in subsequent rural practice, with a positive dose effect for greater degrees of exposure, yet less than 10% of graduates experience any rural training during their residencies
- Analyzed all 12,162 clinically active physicians who completed an ACGME FM residency 2008 -- 2012
- 14% were practicing in a rural location in 2018
- Almost half of FM residents who spent more than 50% of their training time in rural areas were working rurally in 2018
- 12% of FM residents who had no rural exposures during their residency were working in rural locations in 2018
- 20% of those who had at least some—though 50% or less—rural exposure during residency were working rurally in 2018

Family Medicine Residency Graduates 2000-2023

Total Graduates	Alaska	Anchorage	Rural	Underserved	Tribal/IHS	Private	Meets a target
248	190	88	133	65	67	76	227
	77%	35%	54%	26%	27%	31%	92%

Why is AKFMR successful at getting graduates to work in rural Alaska

- Curriculum structured with rural Alaska healthcare needs in mind
- Rural experience available in all 3 years
- “The Alaska Factor”—those who choose Alaska for residency are more likely to stay
- Alaska wows people
- Recruit heavily with rural mission in mind
- Faculty with rural Alaska experience
- Graduates are there already, which draws more graduates

AKFMR Curriculum

- Family Medicine residency training is 3 years
- Most of AKFMR training is in Anchorage, not an RTT or RTP
- Strong emphasis on inpatient medicine, obstetrics, pediatrics, clinic, Transcultural medicine to prepare residents for remote rural practice
- All residents are required to spend 6 weeks in one of two rural community in R2 year
- Residents have 8 weeks of rural rotations in R3 year
- Some residents spend 3 weeks of ER in R1 year in a rural community

Challenges

- As family medicine training requirements change, a mixed urban-rural (non-RTP) curriculum becomes more challenging
 - 40 weeks of continuity clinic each year
 - 1000 hours in home clinic (FMP)
 - Rural sites are not FMPs
 - Rural sites are focused on full scope experience
 - Rural rotations separate our residents from one another
 - Struggle to get evaluations from rural sites
 - Financial constraints

AKFMR Curriculum

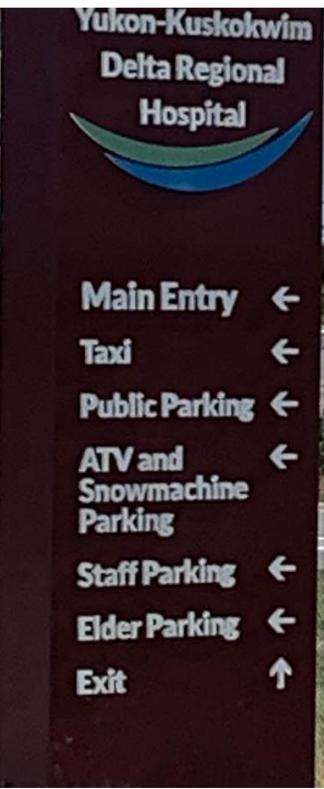
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About the YK Delta

The Yukon-Kuskokwim Delta region, a lowland river delta

- 75,000 square miles, approximately the land size of the state of Oregon
- more than 23,000 people in 58 rural communities not connected by road
- From the villages, Bethel is only accessible by airplane, boat, and (in winter) snowmobiles/snowmachines and four wheelers. Cars often use the frozen rivers as roads during winter

Bethel

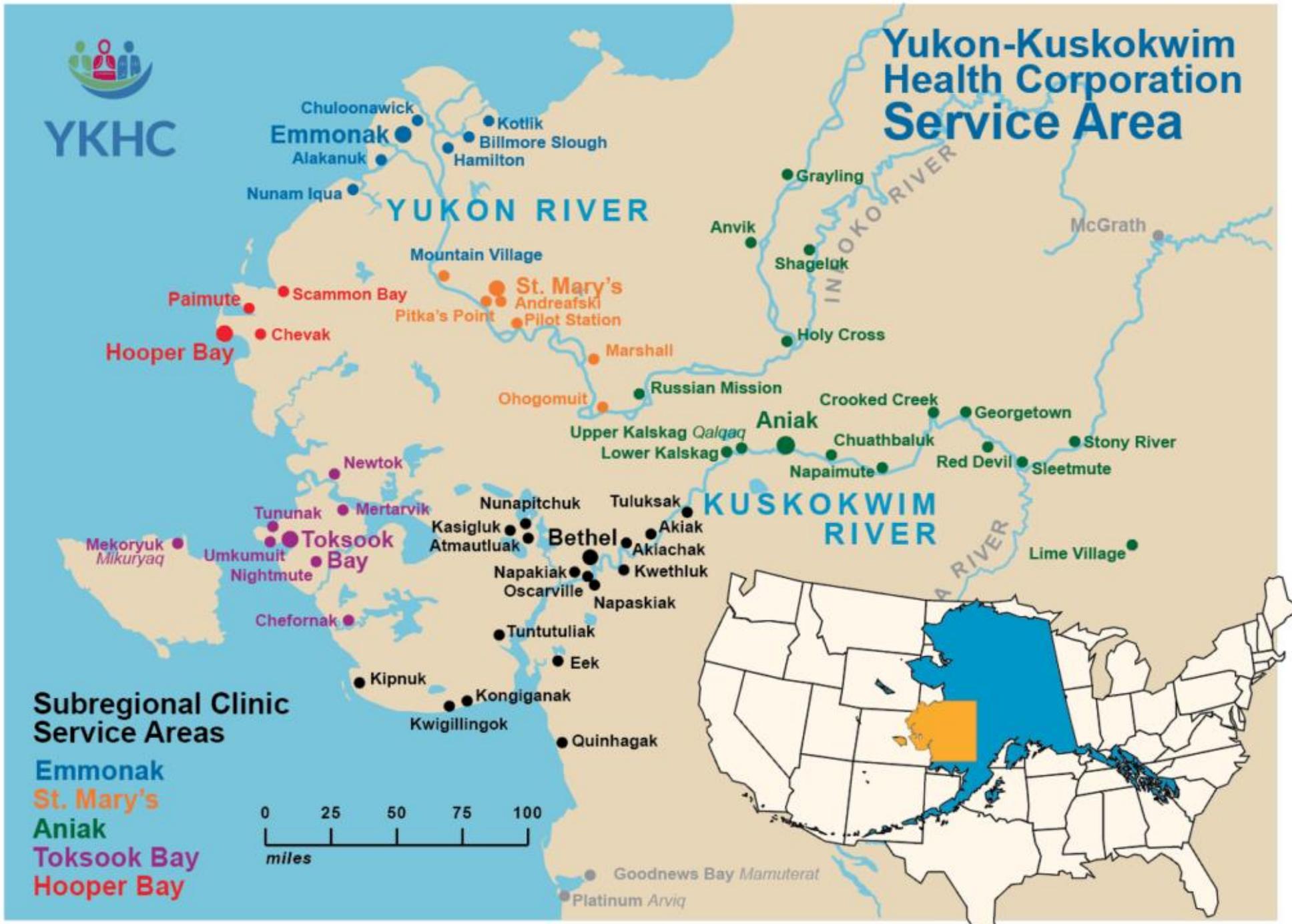


About the YK Delta

- The region is home to three cultures: Yup'ik, Cup'ik, and Athabascan.
- The Yup'ik language is the first language of more than 14,000 people, making it the most widely spoken Alaska Native language today
- Overall population is approximately 82% all or part Alaska Native

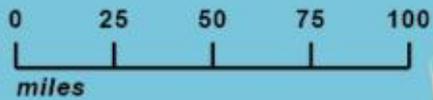


Yukon-Kuskokwim Health Corporation Service Area



Subregional Clinic Service Areas

- Emmonak
- St. Mary's
- Aniak
- Toksook Bay
- Hooper Bay



● Goodnews Bay Mamuterat
● Platinum Arviq

YKHC

- YKHC administers a comprehensive health care delivery system for 50 rural communities in southwest Alaska.
- The system includes community clinics, sub-regional clinics, a regional hospital, dental services, behavioral health services including substance abuse counseling and treatment, health promotion and disease prevention programs, and environmental health services.
- YKHC is a Tribal Organization authorized by each of the 58 federally recognized Tribal councils in its service area to negotiate with the Federal Indian Health Service to provide health care services under Title V of the Indian Self-Determination and Education Assistance Act of 1975.



YKHC Resident experience

- Focused on full scope experience
 - Inpatient adult care
 - Inpatient pediatrics
 - Labor and delivery, including c-sections
 - ER
 - Clinic
 - Radio Medical Traffic
 - Medevac

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Questions?



2023-24 AK-PIC Cohort

Alaska Psychology Internship Consortium (AK-PIC)



Our Mission

To prepare and retain psychologists to provide culturally competent collaborative health care for Alaska's unique and diverse people.



Accredited by the
American Psychological Association

APA Competencies

1. Research
2. Ethical and Legal Standards
3. Individual and Cultural Diversity
4. Professionalism
5. Interpersonal Skills
6. Assessment
7. Intervention
8. Supervision
9. Interdisciplinary Practice



Alaska Competencies

1. Alaska Native Culture & Context
2. Historical & Psychological Trauma
3. Addiction & Harm Reduction
4. Suicide Prevention & Intervention



AK-PIC Sites



**PROVIDENCE FAMILY
MEDICINE CENTER**



**ALEUTIAN PRIBILOF
ISLANDS ASSOCIATION**



**ALASKA PSYCHIATRIC
INSTITUTE**



**NORTON SOUND HEALTH
CORPORATION**



Our Graduates

- AK-PIC has graduated 122 interns
- More than 50% choose to work in Alaska after internship.
- Over 80% of those continue to work in Alaska to this day.
- Most graduates work with underserved populations.

Workforce Concentration Across Regions



SOUTHWEST = 10 Total Positions
 Aleutian Pribilof Islands Association (8 Positions)
 Yukon Kuskokwim Health Corporation (1 Position)
 TDX Holdings, LLC (St. Paul Island) (1 Position)

FAR NORTH = 13 Positions
 North Slope Borough (1 Position)
 Norton Sound Health Corporation (12 Position)

INTERIOR = 9 Positions
 Bassett Army Community Hospital (1 Position)
 Hope Counseling Center (8 Positions)

SOUTHEAST = 1 Positions
 Southeast Alaska Health Consortium (1 Position)

AK-PIC graduates have filled 90 behavioral health positions in Alaska since 2011.

SOUTHCENTRAL = 57 Positions

- Akeela House (1 Position)
- Alaska Counseling and Consulting-Wasilla (1 Position)
- Alaska Native Tribal Health Consortium (5 Positions)
- Alaska Pacific University (1 Position)
- Alaska Psychiatric Institute (9 Positions)
- Alaska Behavioral Health (4 Positions)
- Anchorage Neighborhood Health (1 Position)
- Cornerstone Counseling (1 Position)
- Community Psychology Consultant (3 Position)
- Denali Family Services (1 Position)
- Department of Correction (2 Positions)
- Orion Behavioral Health- Eagle River (3 Position)

- Joint Base Elmendorf-Richardson (1 Position)
- Medical Park Family Care (1 position)
- New Path Counseling (1 Position)
- Northstar Hospital (1 Position)
- Providence Family Medicine Center (7 Positions)
- Providence Behavioral Health (1 Position)
- Providence Crisis Recovery Center (1 Position)
- Providence Neurodevelopmental Clinic (1 Position)
- Seaview Community Services (1 Position)
- Southcentral Foundation (2 Positions)
- True North Psychological Services (2 Positions)
- University of Alaska (4 Positions)
- Veteran's Administration Anchorage (1 Position)

Thank you!

Supporting Rural Communities Through Telehealth



JOHN SCOTT, MD, MSC, FIDSA

CHIEF DIGITAL HEALTH OFFICER, UW MEDICINE

PROFESSOR, MEDICINE

April 26, 2024

Disclosures

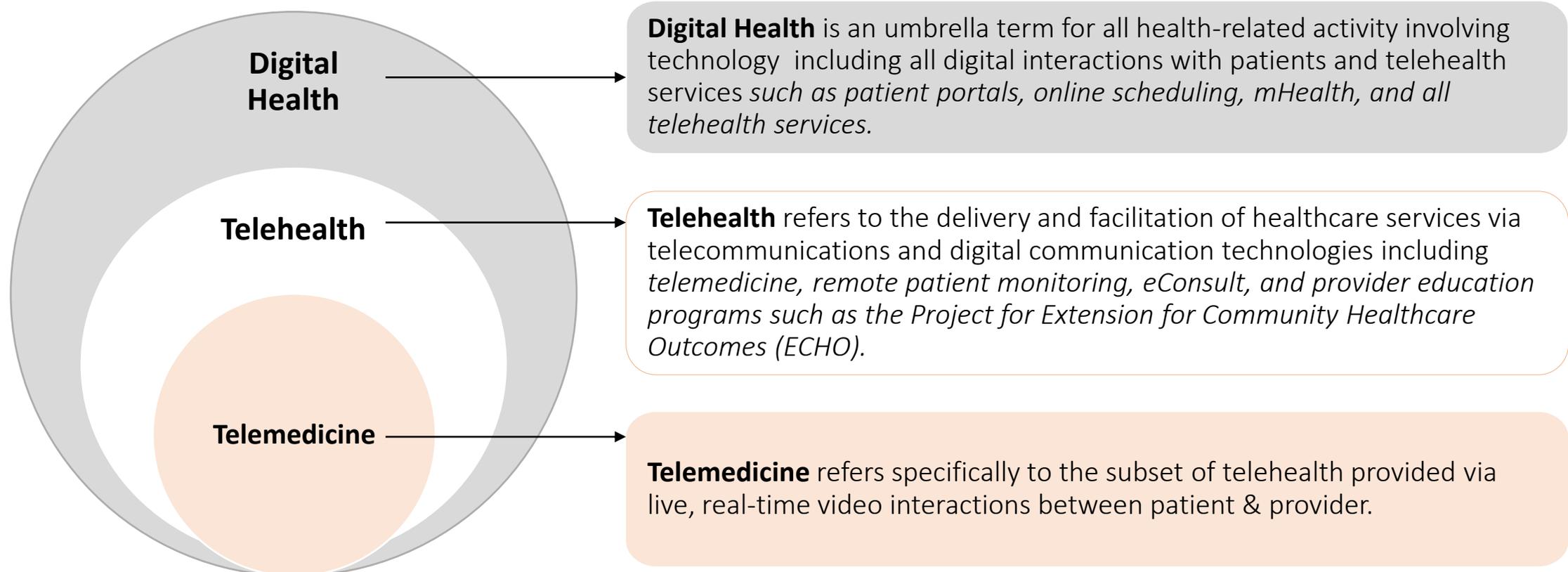
- I serve on data adjudication cmte for Novo Nordisk on cardiovascular medication, Premera Blue Cross P&T cmte, and Guidepoint for viral hepatitis
- I serve on the AI cmte for the Washington State Medical Assn; all views are my own.

Outline

- Definitions
- eConsults
- Project ECHO
- Telehealth elective for UW medical students
- The role of AI/ML in medical education

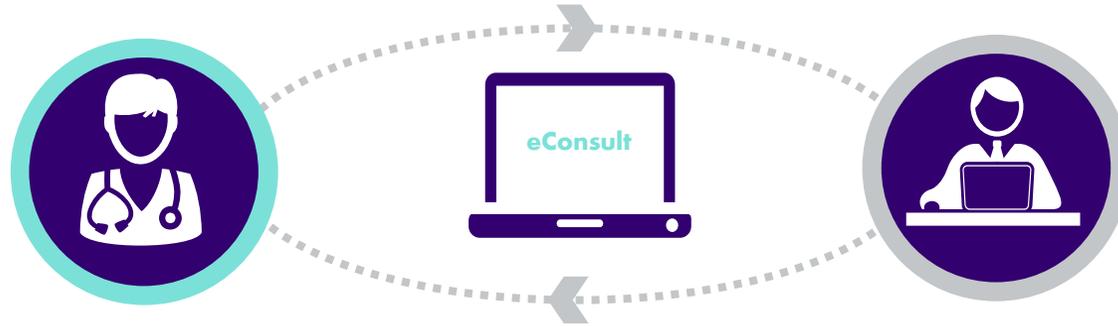
Digital Health, Telehealth & Telemedicine

The terms **telemedicine** and **telehealth** are often used interchangeably, however there are differences.



eConsult Program

eConsults are a **cost-effective** solution to **improve access** to specialty care



Referring Provider

"I have a clear clinical question for a specialist to help me manage my patient's care plan."

- » Timely access to specialty input
- » Improved continuity of care for patients

Specialist

"I reply with recommendations and next steps for the patient so the referring provider can continue managing the patient's care."

- » Improved access for higher acuity patients and new patients
- » More efficient referrals

eConsults

- » Secure written exchange between providers
- » Condition-specific templates
- » Include relevant labs, tests, images
- » 3 business-day turnaround

Impact

- » Over 25,000 eConsults completed since 2016

Specialties live in the UW program

- » Allergy
- » Cardiology
- » Dermatology
- » Endocrinology
- » Gynecology
- » Hematology
- » Weight Loss
- » Palliative Care
- » Nephrology
- » Neurology
- » Psychiatry
- » Pulmonary Medicine
- » Rheumatology
- » Urology

- » Over **90% of queries successfully handled via eConsult**, others converted to in-person

Project ECHO (Extension for Community Health Outcomes)

Multidisciplinary **education** and **case consultations** help clinicians care for patients in their own community

Program Overview

- » UW Medicine was the second ECHO program in the United States
- » ECHO is now live in 80+ countries on 6 continents
- » Over 500 publications

Virtual ECHO Session

- » 1 session/week, on average, per discipline
- » 10-15 min educational session, CME credit available
- » Clinicians present de-identified cases, sent to UW Medicine in advance
- » Multi-disciplinary case consultation & treatment plan development
- » Session materials made available

Available Specialties

- » HIV/AIDS
- » Viral Hepatitis
- » Tuberculosis
- » Geriatrics
- » Antimicrobial Stewardship
- » Multiple Mental Health
- » Long COVID
- » Dementia
- » Pediatric diabetes mellitus
- » Maternal Health



Telehealth Elective: FAMED 691

- 2 week elective for 3rd and 4th UW SoM students
- 100% virtual
- Spend time with specialists and PCPs seeing patients by telemedicine
- Attend Project ECHO sessions
- eConsults with Dermatology
- Complete Washington State provider training, obtain certificate

AI/ML in Medical Education

- UW policy is evolving on use of AI by students, right now is at discretion of individual course director
- No formal teaching on topic
- Opportunities for personalized teaching

write a quiz question appropriate for a second year medical student testing knowledge of antimicrobial resistance mediated through plasmids

- A. Plasmids can directly mutate the bacterial chromosome, making all E. coli resistant.
- B. Plasmids can be transferred between bacteria through conjugation, allowing susceptible bacteria to gain resistance genes.
- C. Plasmids weaken the bacteria, making them more susceptible to other antibiotics.
- D. Plasmids increase the virulence of the bacteria, making them more likely to cause infections.
- E. Plasmids can be broken down by the immune system, rendering the bacteria susceptible again.

Issues with AI/ML

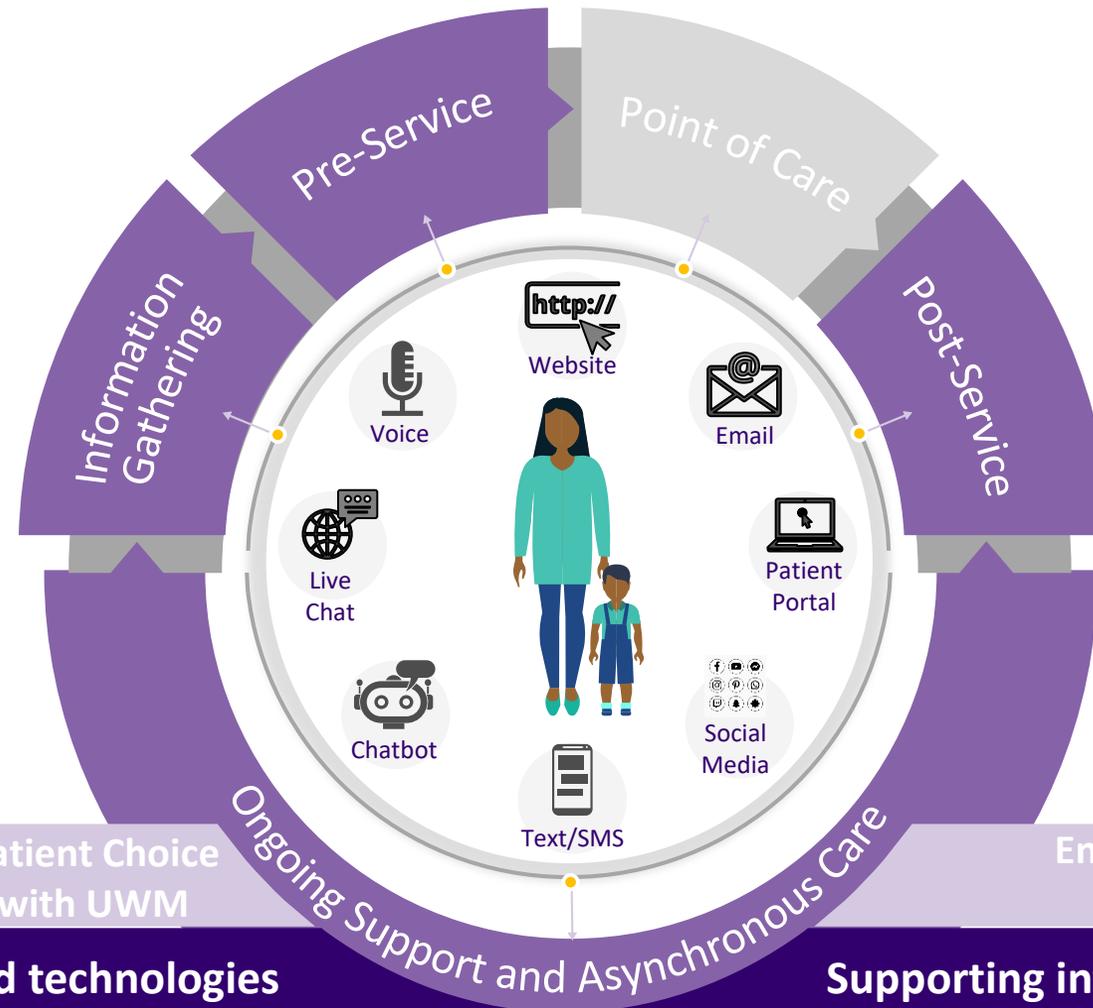
- Accuracy (“garbage in, garbage out”)
 - Hallucinations occur up to 20% of time
 - “Despite the appearance of cognition, algorithms are simply a reflection of our own data, usually generated in the past.” (Dorr et al)
- Bias
- Security (malware, spoofing, Trojan horses, hacking)
- Privacy
- Legal
- Intellectual Property/Honesty

Further reading and resources

- [The AI Revolution in Medicine: GPT-4 and Beyond.](#) Peter Lee, Carey Goldberg, Isaac Kohane. Pearson, 2023.
- Ground Truths blog by Dr. Eric Topol: [The GPT-x Revolution in Medicine](#), Mar 27, 2023 and [When M.D. is a Machine Doctor](#), Jan 15, 2023.
- [Weapons of Math Destruction.](#) Cathy O’Neill, Crown: New York. 2016.
- Dorr DA, Adams L, Embi P. Harnessing the Promise of Artificial Intelligence Responsibly. *JAMA* Mar 27, 2023.
- Haupt CE, Marks M. AI-Generated Medical Advice—GPT and Beyond. *JAMA* Mar 27, 2023.
- Coalition for Health AI
- National Academy of Medicine
- UW Center for Computing Integrity and Policy Science (CHIPS): www.uwchips.org

Questions?

What *IS* the Digital Front Door?



Omni-Channel Approach – Patient Choice
in *how* they communicate with UWM

Ensuring equitable access
for all UWM Patients

Coordination of tools and technologies

Supporting interactions with UW Medicine

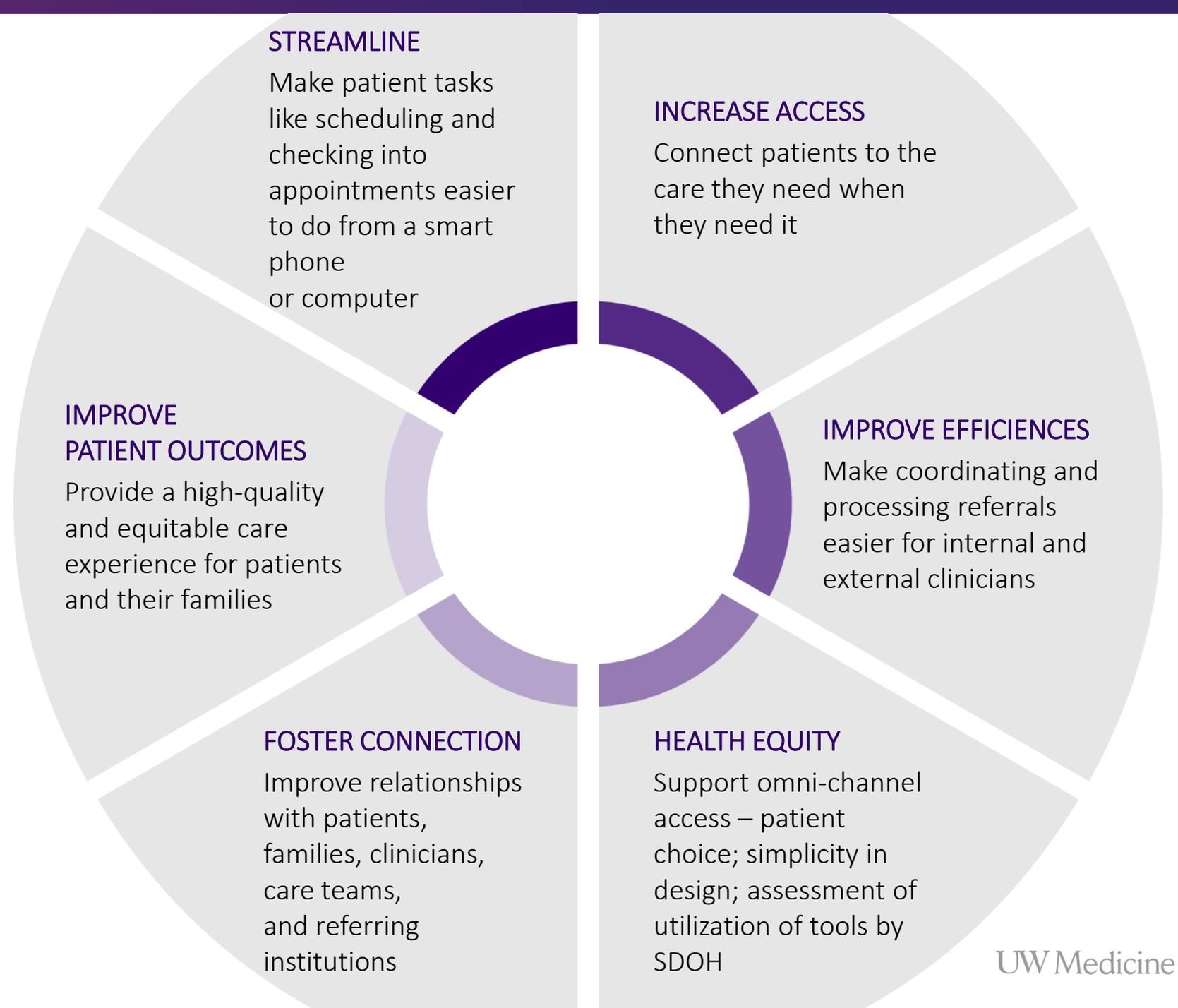
Across the full spectrum of the patient journey

Digital Health Office

- Newly formed in 2022, outgrowth of Telehealth which started in 2013
- Dyad leadership: Chief Digital Health Officer (Scott) and Senior Director (Shumway)
- Reports to Chief Medical Officer and President, UW Medicine Hospitals & Clinics
- 15 FTE
- Responsible for digital front door strategy and deployment
- Owner of patient's digital health journey

Digital Health Goals

VISION: To present a seamless experience that deepens and broadens UWM's relationships with our patients, families, referring providers, and care teams, allowing for intuitive and efficient interactions when and how they prefer



Digital health helps improve efficiency

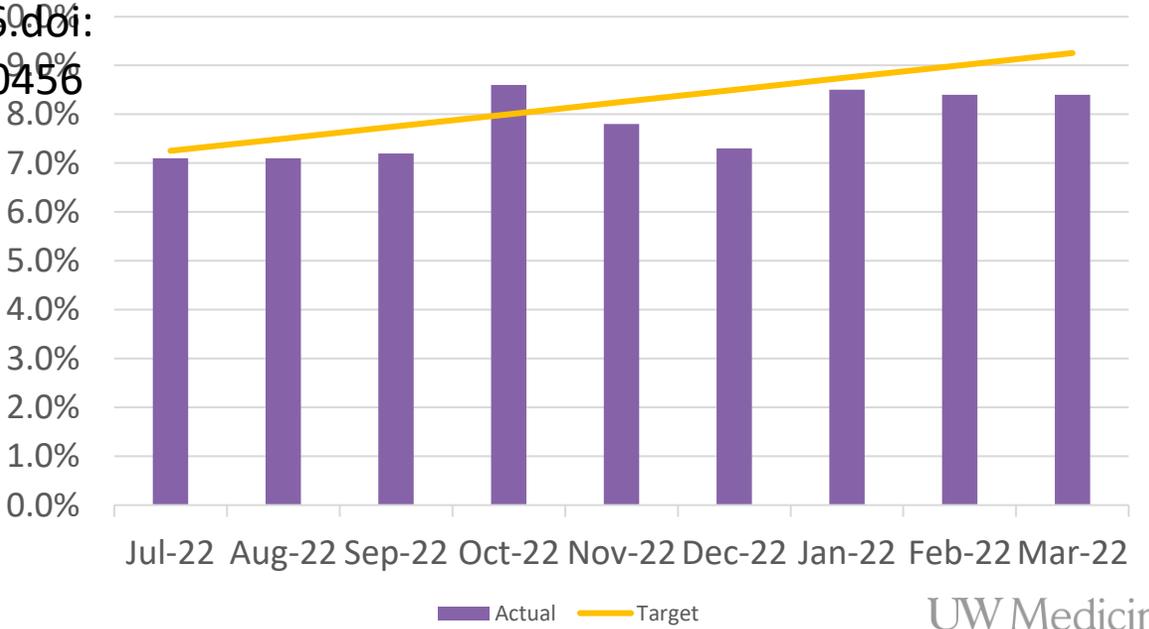
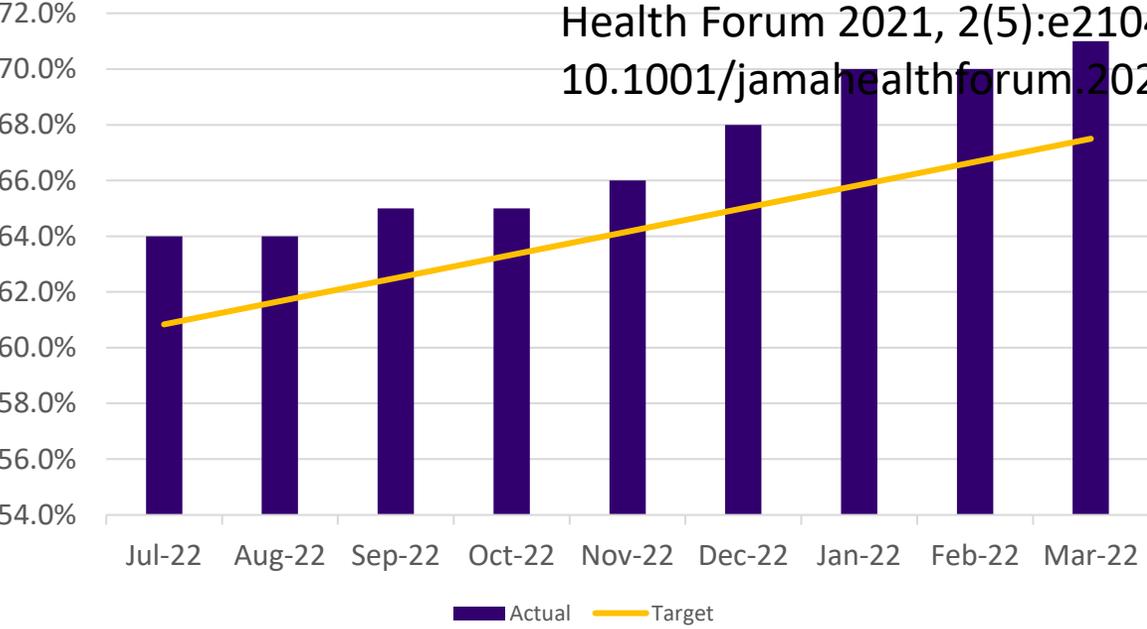
Enable, expand, and leverage capabilities to engage patients, supporting automated and/or self-service options

Increase **MyChart Enrollment** focusing on self-service capabilities

Optimize and expand availability of **Online Scheduling** capabilities

Source: Gaye M, Mehrotra A, Byrnes-Enoch H, et al.

MyChart Enrollment Association of e-Consult Implementation With Access to Specialist Care in a Large Urban Safety-Net System. *JAMA Health Forum* 2021, 2(5):e210456. doi: 10.1001/jamahealthforum.2021.0456
 Baseline: 60% - FY23 Goal: 70%
 Baseline: 7% - FY23 Goal: 10%



UWM Digital Health Office Leadership Team



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