INSTITUTE FOR HEALTHCARE POLICY & INNOVATION
UNIVERSITY OF MICHIGAN

The Current and Future State of Telehealth in the United States

DATA AND INSIGHTS

Chad Ellimoottil, MD, MS

Introduction and purpose

- Chad Ellimoottil, MD, MS (University of Michigan)
  - Associate Professor of Urology
  - Telehealth policy researcher
  - Medical Director of Virtual Care, University of Michigan Medical Group

- Agenda:
  - Overview of top policy issues related to telehealth
  - Research on the impact of telehealth on access, quality, and costs
    - What is known?
    - What is unknown?
    - Challenges with uncovering the unknown

Overview of top policy issues related to telehealth

- Prior to March 2020, telehealth was used by <1% of patients and healthcare providers
- During the COVID-19 public health emergency (PHE), telehealth coverage was expanded
- Despite the end of the PHE, most major coverage flexibilities were extended until December 31, 2024

<u>Originating site/geographic restrictions</u>

- **Before PHE**: Patients were required to be in a medical facility within a rural area to participate in telehealth
- **During PHE:** Patient were allowed to connect from home
- **After December 31, 2024:** Return to before PHE

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- **Definition:** Phone call as a substitute for an office visit, not a way to bill patients for quick follow ups
- **Before PHE**: Medicare did not cover phone calls with patients (audio-only telehealth), some commercial payers did
- **During PHE:** Phone calls were universally covered for practical reasons
- **After December 31, 2024:** Audio-only telehealth will not be covered by Medicare

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Payment parity

- Before PHE: Some insurers paid the same for telehealth as in-person visits, Medicare paid the facility rate (lower) for telehealth visits
- During PHE: Most insurers recognized payment parity
- After December 31, 2024: Unclear

Overview of top policy issues related to telehealth

In-person requirements

- Before PHE: No in-person requirements for mental health. In-person requirement for prescribing controlled substances
- During PHE: No in-person requirements for mental health (CMS) or prescribing controlled substances (DEA)
- After December 31, 2024: In-person requirement returns for Medicare

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Interstate telehealth

- Before PHE: Medical licensure rules require patients to be in a state where the clinician is licensed
- During PHE: All 50 states + DC relaxed licensure rules to allow interstate telehealth
- Since about October 2020: Nearly all states have brought licensure rules back

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Other topics

- Telehealth at FQHCs/RHCs
- Telehealth for therapy services
- Consumer Directed Health Plans (HSAs)

118th Congress - Introduced Legislation

Updated 8/20/2023

Introduced Legislation	Bill Number	Sponsor	Support	Summary	Committee of Jurisdiction	Status
Expanded Telehealth Access Act	S. 2880	Sen. Daines (R-MT)	Bipartisan (5)	The legislation would expand the type of practitioners eligible for payment for telehealth services under the Medicare program.	Senate Finance	Introduced September 21, 2023
Helping Ensure Access to Local TeleHealth (HEALTH) Act of 2023	H.R. 5611	Rep. Thompson (R-PA)	Bipartisan (5)	The legislation would provide for permanent payments for telehealth services furnished by Federally qualified health centers and rural health clinics under the Medicare program.	House Energy & Commerce; Ways & Means	Introduced September 20, 2023
Bipartisan Primary Care and Health Workforce Act	S. 2840	Sen. Sanders (I-VT)	Bipartisan (1)	The legislation would improve access to and the quality of primary health care and the expand the health workforce. Specifically, the bill would prohibit hospitals from charging health plans and issuers a facility fee for services provided in off-campus HOPDs and for many services in on-campus HOPDs, including evaluation and management, telehealth and others.	Senate HELP	Passed Senate HELP Committee by a vote of 14-7. The workforce provisions were included in the CR package.
Temporary Reciprocity to Ensure Access to Treatment (TREAT) Act	H.R. 5541	Rep. Latta (R-OH)	Bipartisan (1)	The legislation would provide temporary licensing reciprocity for telehealth and interstate health care treatment.	House Energy & Commerce	Introduced September 18, 2023
Expanding Remote Monitoring Access Act	H.R. 5394	Rep. Balderson (R-OH)	Bipartisan (3)	The legislation would ensure appropriate access to remote monitoring services furnished under the Medicare program.	House Energy & Commerce; Ways & Means	Introduced September 12, 2023
Rural Telehealth and Education Enhancement Act of 2023	H.R. 5308	Rep. Langworthy (R-NY)	Bipartisan (21)	The legislation would reauthorize the Distance Learning and Telemedicine Program of the Department of Agriculture.	House Agriculture Committee	Introduced August 29, 2023
Telehealth Response for E-prescribing	H.R. 5163	Rep. Trone (D-MD)	Bipartisan (5)	The legislation would allow for the use of telehealth in substance use disorder treatment.	House Energy & Commerce;	Introduced August 4, 2023

Federal bills - As of 8/20/2023, there are 26 federal bills

State bills

- Payment parity
- Audio-only
- FQHCs and RHCs

Stakeholders Urge Senators to Avert 'Fast and Slow' Death of Telehealth

In a Senate subcommittee hearing, healthcare stakeholders doubled down on the critical need to make permanent pandemic-era telehealth flexibilities.

Fast and slow death of telehealth

- FAST - originating site and geographic restrictions are reinstated

- SLOW –
  - Lack of coverage alignment among payers
  - Loss of audio-only coverage
  - Loss of payment parity
  - Implementation of guardrails that lack clinical evidence

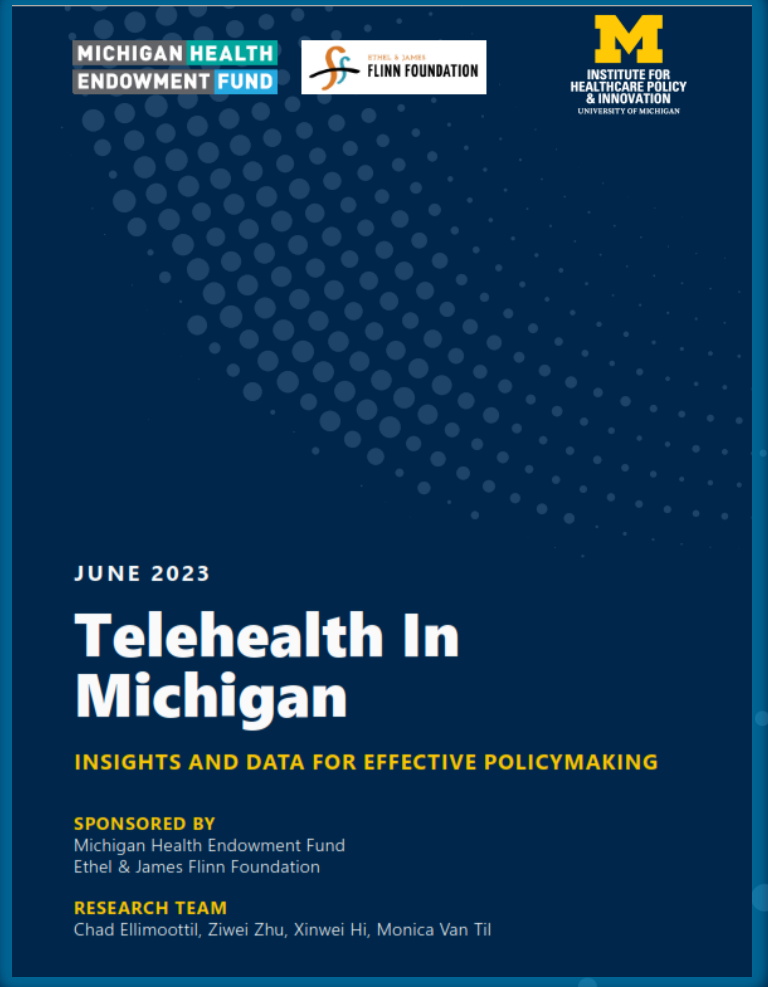
Access

Quality

Cost

What does the research show on the impact of telehealth on healthcare access, quality and costs?

- Pubmed search for telehealth or telemedicine from 2020-2024: 30,360 articles
- AHRQ review of 310 selected studies *Use of Telehealth During the COVID-19 Era* (2023)
- MedPAC report *Telehealth in Medicare* (2023)
- Office of Inspector General *Medicare Telehealth Services During the First Year of the Pandemic: Program Integrity Risks* (2022)
- State specific data *Telehealth in Michigan* (2023)



While no single study or report can definitively capture the entire impact of telehealth on costs, quality, and access, I believe most researchers would at least agree on these three points:

1. Telehealth expansion has not led to runaway healthcare spending or utilization.
2. Telehealth does not compromise quality of care for patients.
3. Telehealth improves access to care.

Access

Quality

Cost

What is known?

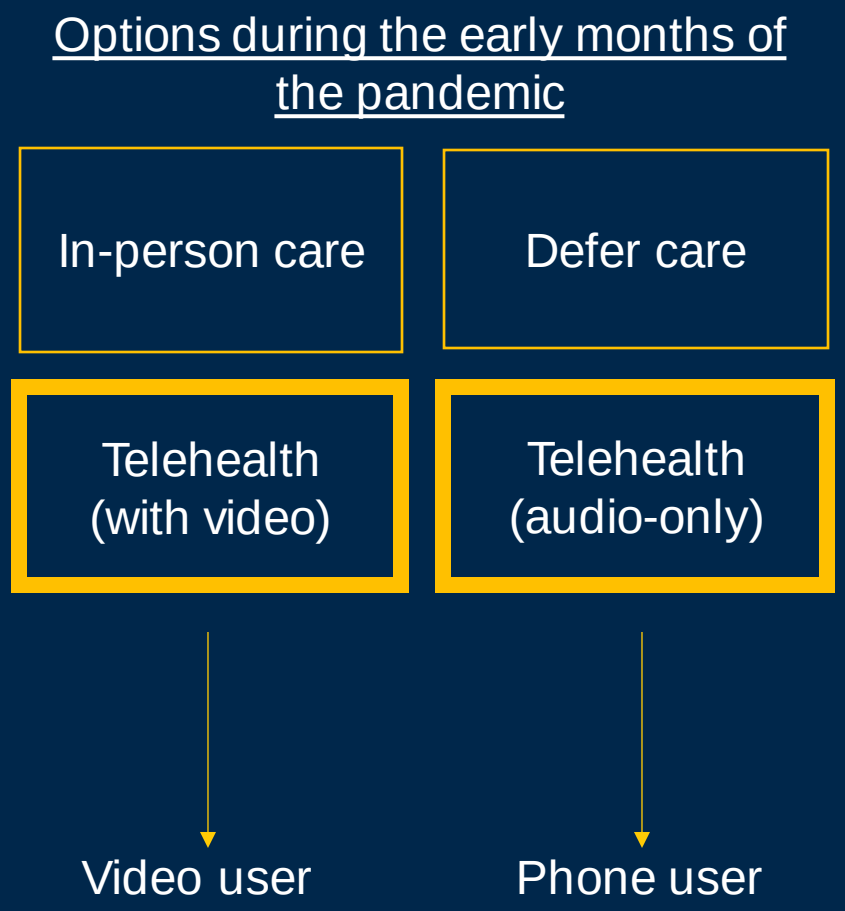
- Telehealth improves beneficiary access to care
  - Enhances patient choice. Reduces travel time. Improves access to expert consultations, clinical trials, 24/7.

- Digital divide
  - Demographics of telehealth users vs non-users is similar with the exception of age, rural and dual-eligible status
  - There is a well-established digital divide which impacts video vs audio-only use
    - Patients that are older, African-American, on Medicaid, need an interpreter, have low broadband access use audio-only

- Interstate telehealth (across state lines)
  - Although the volume of interstate telehealth as a proportion of total outpatient care in the US is small, interstate telehealth use matters substantially for some states.
  - Important for clinicians and patients near state borders.
  - Established clinician-patient relationships.
  - Rural > non-rural

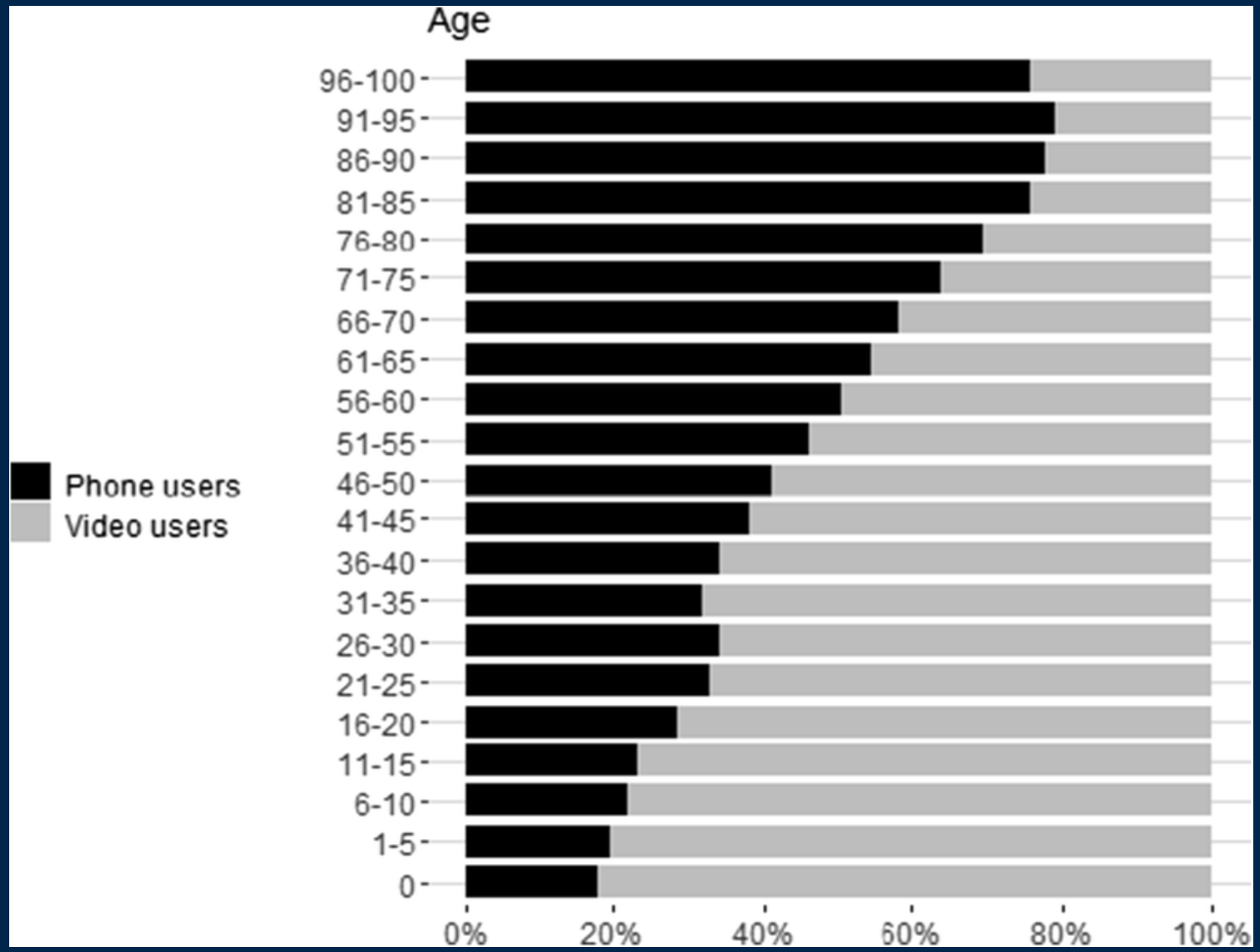
Predictors of Audio-only vs Video Telehealth Visits

- Outpatient electronic medical record data from Michigan Medicine (April through June 2020)
  - Two advantages of this single institution study:
    - Time period when in-person outpatient care levels were low
    - A connection variable allowed us to reliably identify if the video connection occurred



Source: Chen J, Ellimoottil C. Predictors of Audio-Only Versus Video Telehealth Visits During the COVID-19 Pandemic. J Gen Intern Med. 2021

Multiple factors decreased the predicted probability of using video visits



<u>Decreased probability of using video</u>
African-American (-10%)
Interpreter (-19%)
Medicaid (-12.1%)
Low broadband access zip code (-7.2%)

Source: Chen J, Ellimoottil C. Predictors of Audio-Only Versus Video Telehealth Visits During the COVID-19 Pandemic. J Gen Intern Med. 2021

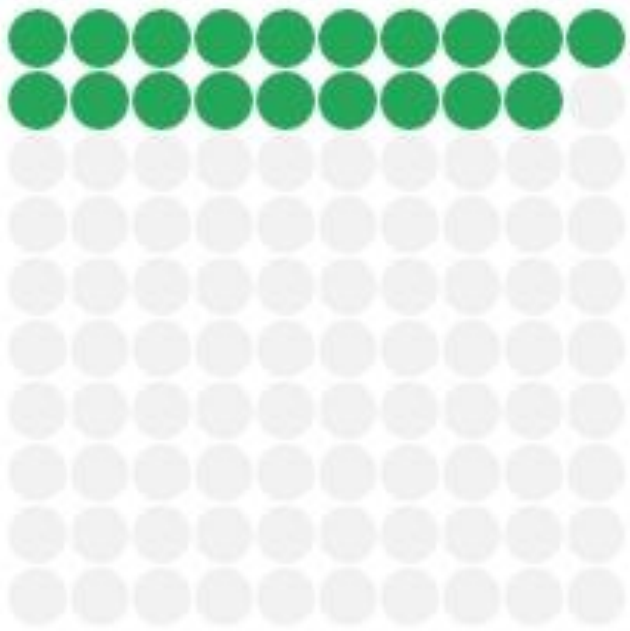
There is a cumulative impact of multiple factors on the probability of using video visits

90%

Young
Non-Medicaid
No interpreter needed

37%

Age >65
+Medicaid



19%

Age >65
+Medicaid
+Interpreter needed

Behavioral Health Specialist Shortage Analysis

- Behavioral health shortage areas = 10 or fewer behavioral health specialists that practice in the county.

- To what extent has the expansion of telehealth improved access to behavioral health specialists in counties facing shortages of such specialists?

County A is a Behavioral Health Shortage Area

In-County A
In-Person

In-County A
Telehealth

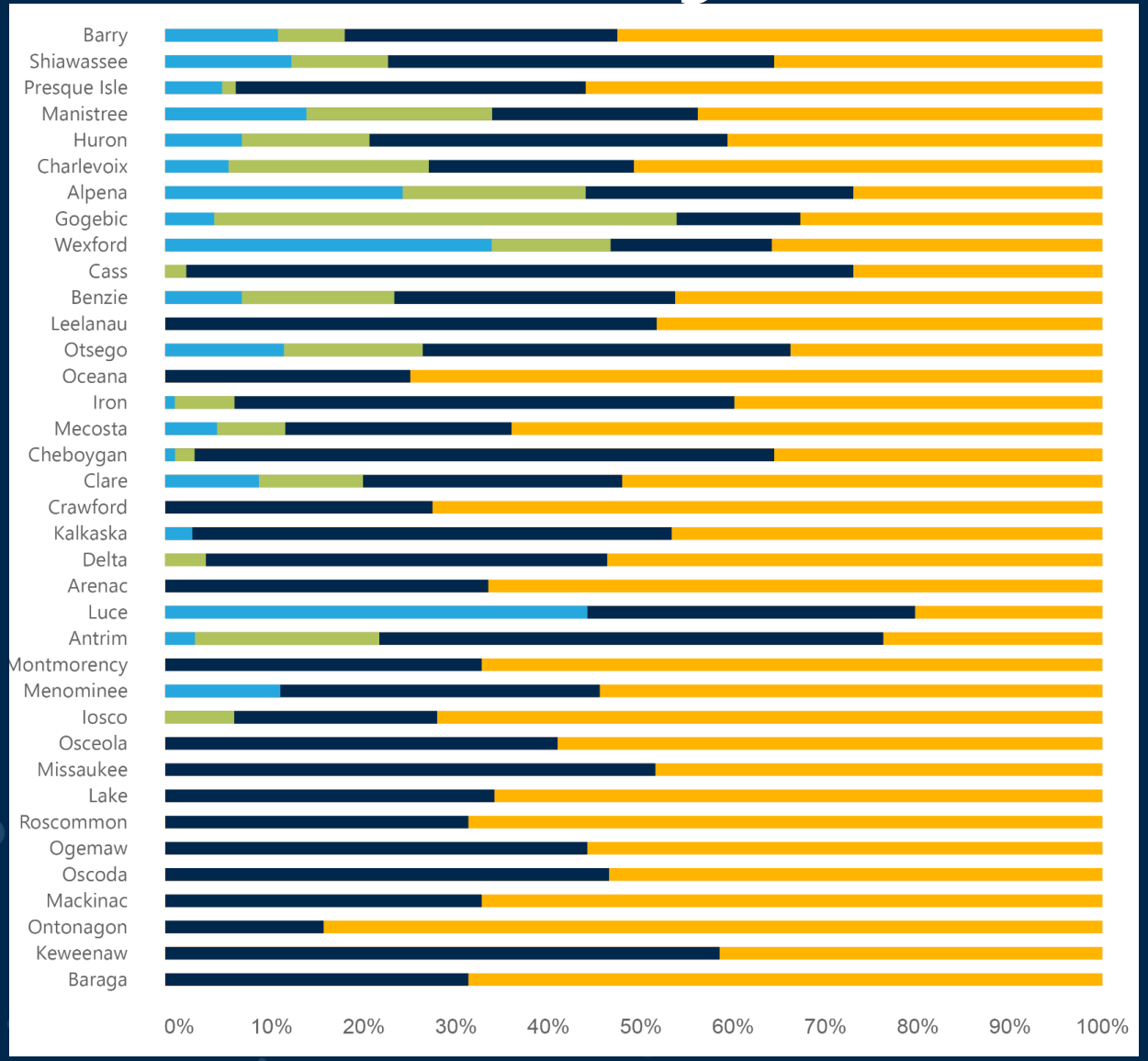
"Convenient Care"

In-County B
In-Person

In-County B
Telehealth

"Improved access"

Percentage of Behavioral Health Specialist Visits Provided by Out-of-County Specialists via Telehealth (Yellow Bar) in Michigan Counties with Shortages of Behavioral Health Specialists, 2021



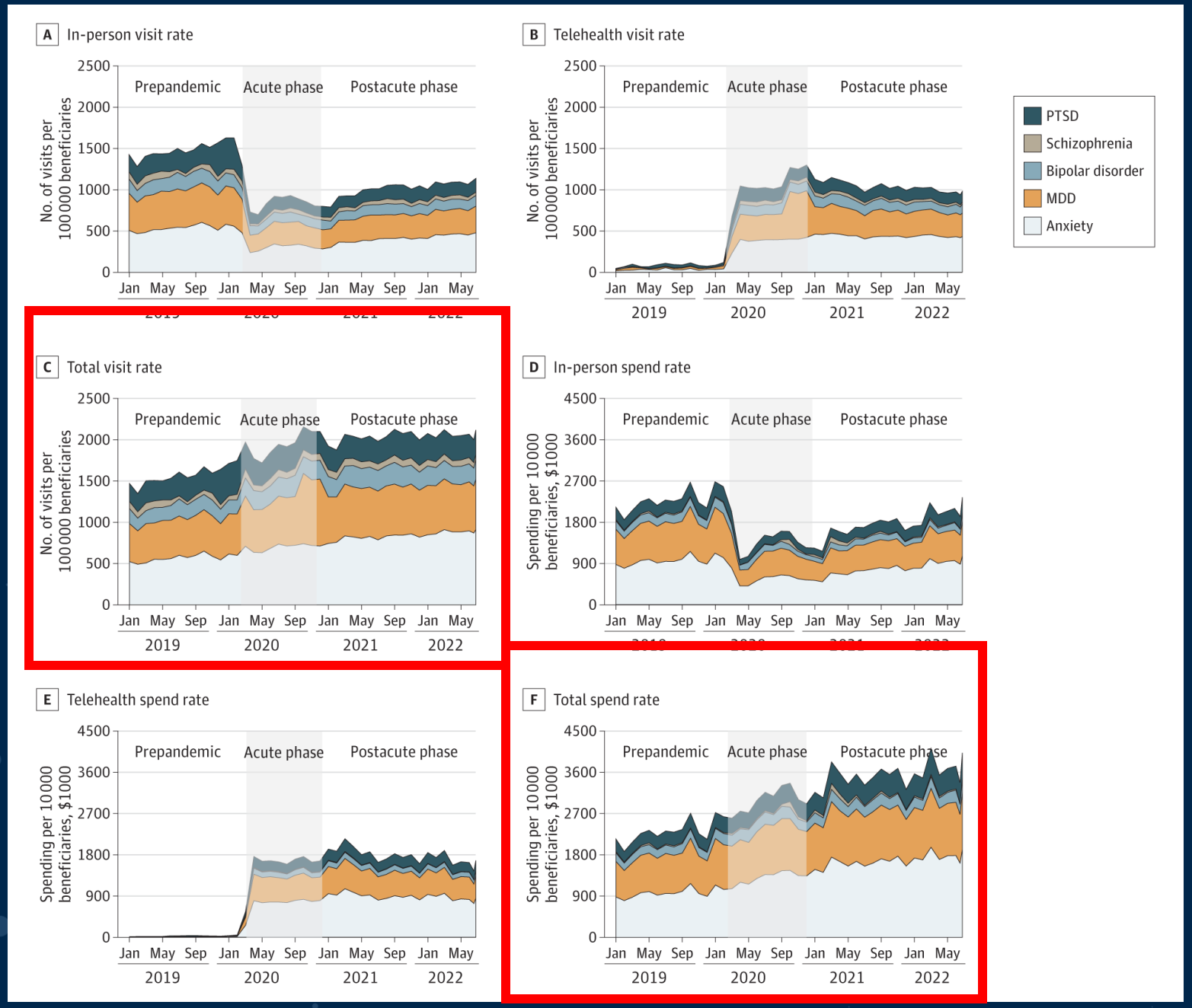
- In 2021, 82% of behavioral healthcare delivered to Medicare patients living in areas with shortages of behavioral health specialists came from professionals located in a different county.
- 47% of visits to these specialists were conducted via telehealth.
- Telehealth has improved access to care in counties with behavioral health specialist shortages

What is unknown and needed to inform policy?

- Does access to care via telehealth improve a specific clinical outcome?
  - Opioid use disorder - Lin et al→access to telehealth→longer engagement on medication treatment for OUD, which is associated with reduced risk of relapse and overdose.
  - Sickle cell - Literature shows that access to hematologist improves outcomes.

- More on provider shortage areas

- Research challenges and ideas
  - Separating out "new access to care" via telehealth vs substituting in-person care for telehealth
    - Bene A has used in-person care for mental health visits, but is now using telehealth (substitute)
    - Bene B has never used mental health services, but is now using mental health services via telehealth (new access)



- RAND analysis
- 38% increase in utilization
- 53% increase in spending

- This does not account for secular trends in increasing mental health dx.

Cantor JH, McBain RK, Ho P, Bravata DM, Whaley C. Telehealth and In-Person Mental Health Service Utilization and Spending, 2019 to 2022. *JAMA Health Forum*. 2023;4(8):e232645.

Access

Quality

Cost

What is known?

- The association between telehealth and quality depends on the:
  - Condition
  - Modality of telehealth (telehealth vs RPM)
  - Quality measure
- ER visits/hospitalizations (video visits): Our research, MedPAC, AHRQ shows no meaningful difference
- AHRQ review - Across a variety of conditions, telehealth produced similar clinical outcomes as compared with in-person care; differences in clinical outcomes, when seen, were generally small and not clinically meaningful when comparing in-person with telehealth care.
  - ER visits — No difference overall, but lower for some conditions like surgical care
  - Hospitalization — No difference overall, but lower for some conditions like surgical care
  - Readmission — No difference overall
  - Mortality — No difference overall
  - Clinical outcomes — No difference overall
  - Adverse events — No difference overall
  - No show rates — Favors telehealth, low strength of evidence
  - Duplication of service — No difference overall
  - Change in therapy/med — No difference overall
  - Adherence — No difference overall
  - Paraclinical (updated labs) — Favors telehealth, low strength of evidence

	Ellimoottil/Li et al.	MedPAC
Outcome	Risk-adjusted ambulatory care–sensitive (ACS) hospitalizations and emergency department (ED) visits per 1,000 fee-for-service (FFS) beneficiaries	Risk-adjusted ambulatory care–sensitive (ACS) hospitalizations and emergency department (ED) visits per 1,000 fee-for-service (FFS) beneficiaries
Setting	Michigan	National
Study period	January 1, 2019 (pre) June - September 30, 2020 (post)	Last 6 months 2019 (pre) Last 6 months 2021 (post)
Level of analysis	PCP Practice	Hospital Service Area (HSA)
Exposure	Low, medium, or high tertile of practice-level telehealth use based on the rate of telehealth visits from March 1 to August 31, 2020,	Low and high tertile of HSA-level telehealth use based on visits from second half of 2021
Analysis	DID	DID
Conclusion:	High telehealth - Slightly higher rate of ACS visit rates (+2.1/1,000 FFS)	"Little change" (+1.63/1,000 FFS in hospitalizations, no difference in ED visits)

Li KY, Ng S, Zhu Z, McCullough JS, Kocher KE, Ellimoottil C. Association Between Primary Care Practice Telehealth Use and Acute Care Visits for Ambulatory Care-Sensitive Conditions During COVID-19. JAMA Netw Open. 2022 Mar 1;5(3):e225484.

What is unknown and needed to inform policy?

- Hundreds of studies on quality of care have been completed
- In nearly all studies, telehealth does not compromise quality of care
- Quality depends on the condition, type of telehealth and quality measure, so it is unclear what type of study will move the needle for policymaking
  - Piecemeal telehealth policy making has not been effective (e.g., ESRD, telehealth in value-based models only)

- Research challenges and ideas
  - Claims-based measures of quality

Access

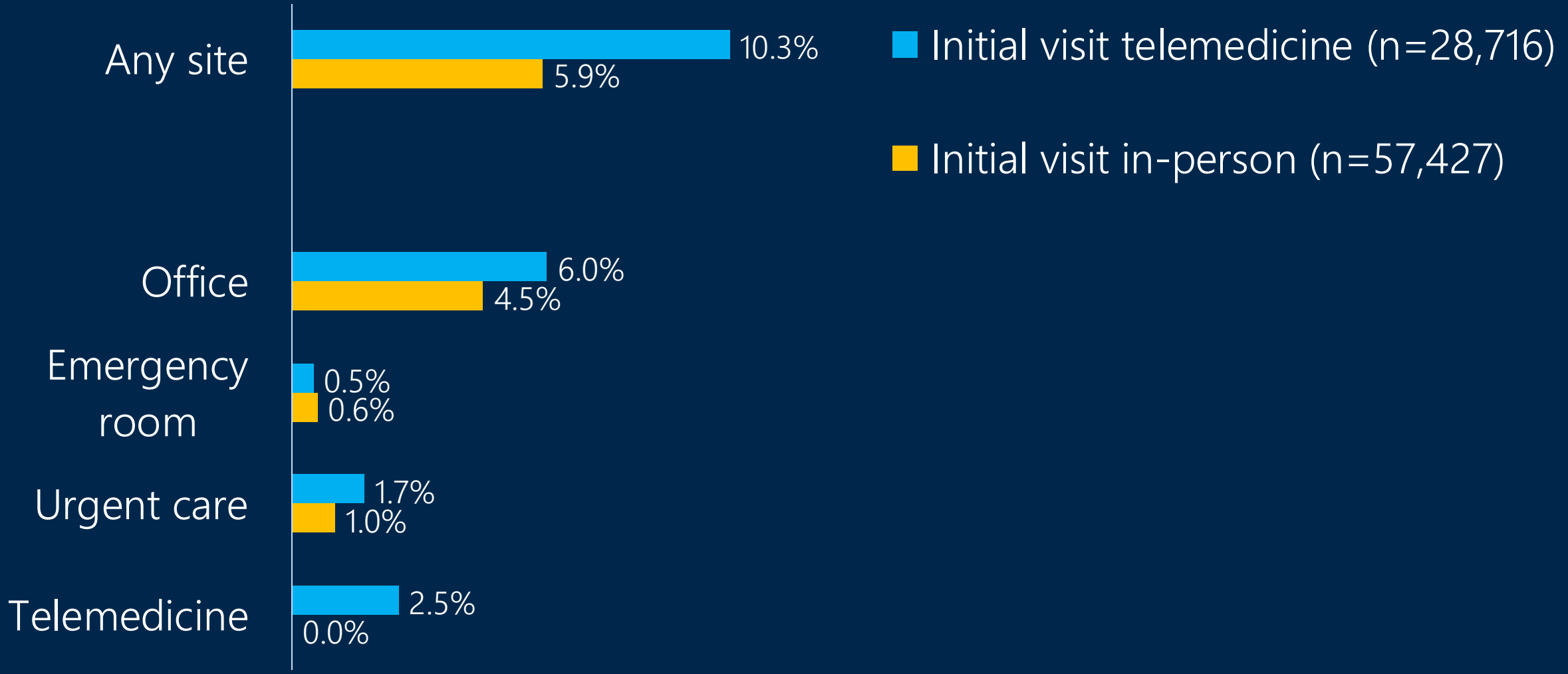
Quality

Cost

What is known?

- No evidence of runaway healthcare utilization or spending
- Patient savings – numerous studies have shown savings to patients and caregivers in travel, parking, opportunity cost
- Return visits within a short interval – mixed findings, but usually the difference is usually small
- A very low percentage of healthcare providers display patterns of fraud and abuse (0.2%)
- MedPAC
  - Total cost of care for Part A and Part B services per FFS beneficiary
  - "Slightly higher spending in HSAs with high intensity telehealth use"

Telemedicine visits for URI symptoms lead to a 4% higher rate of secondary visits within 7 days



Source: Li K, Ellimoottil C. Association between Telemedicine Visits for Acute Respiratory Infections and Downstream Related Visits. (Health Affairs)

Office of Inspector General Report on Fraud and Abuse

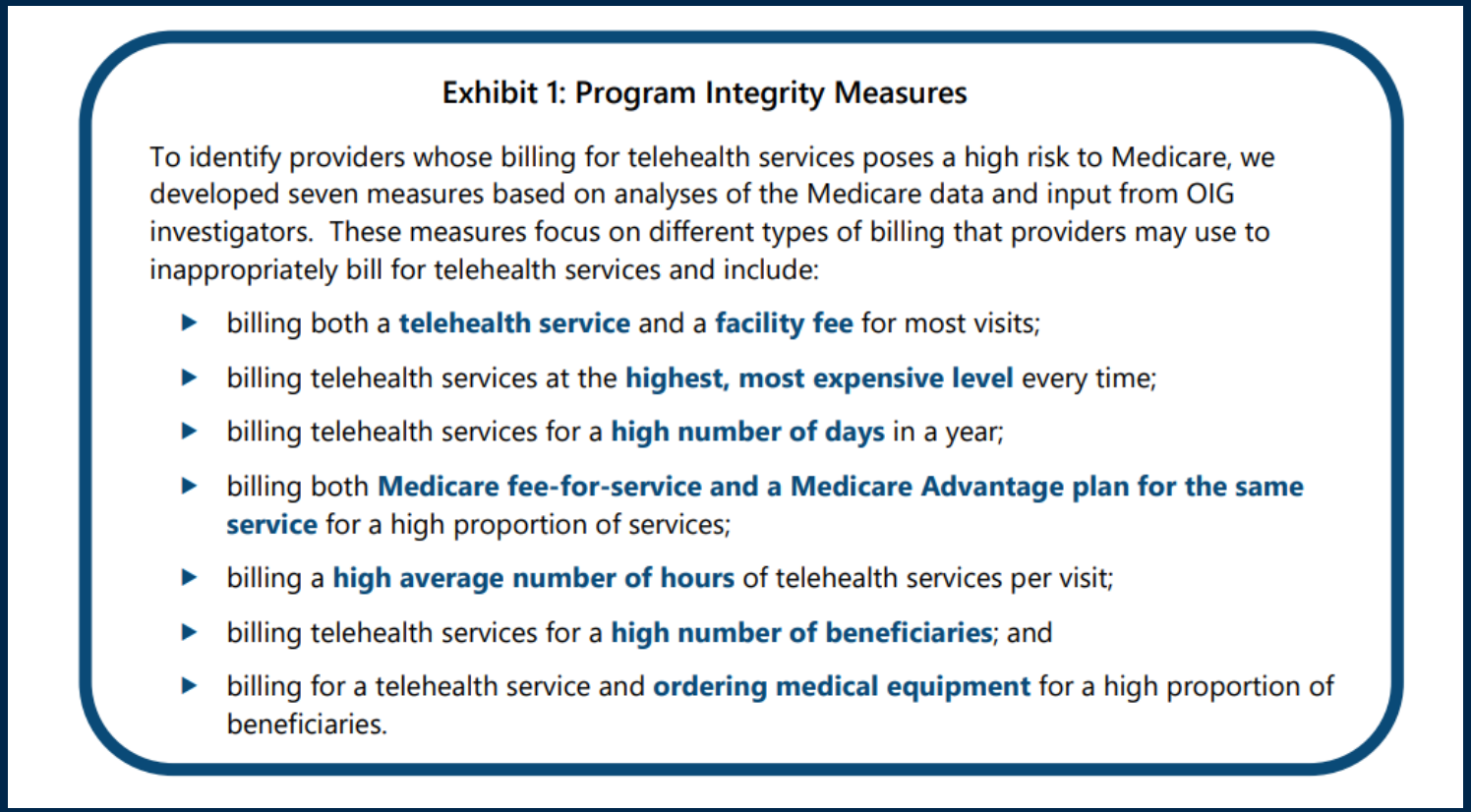


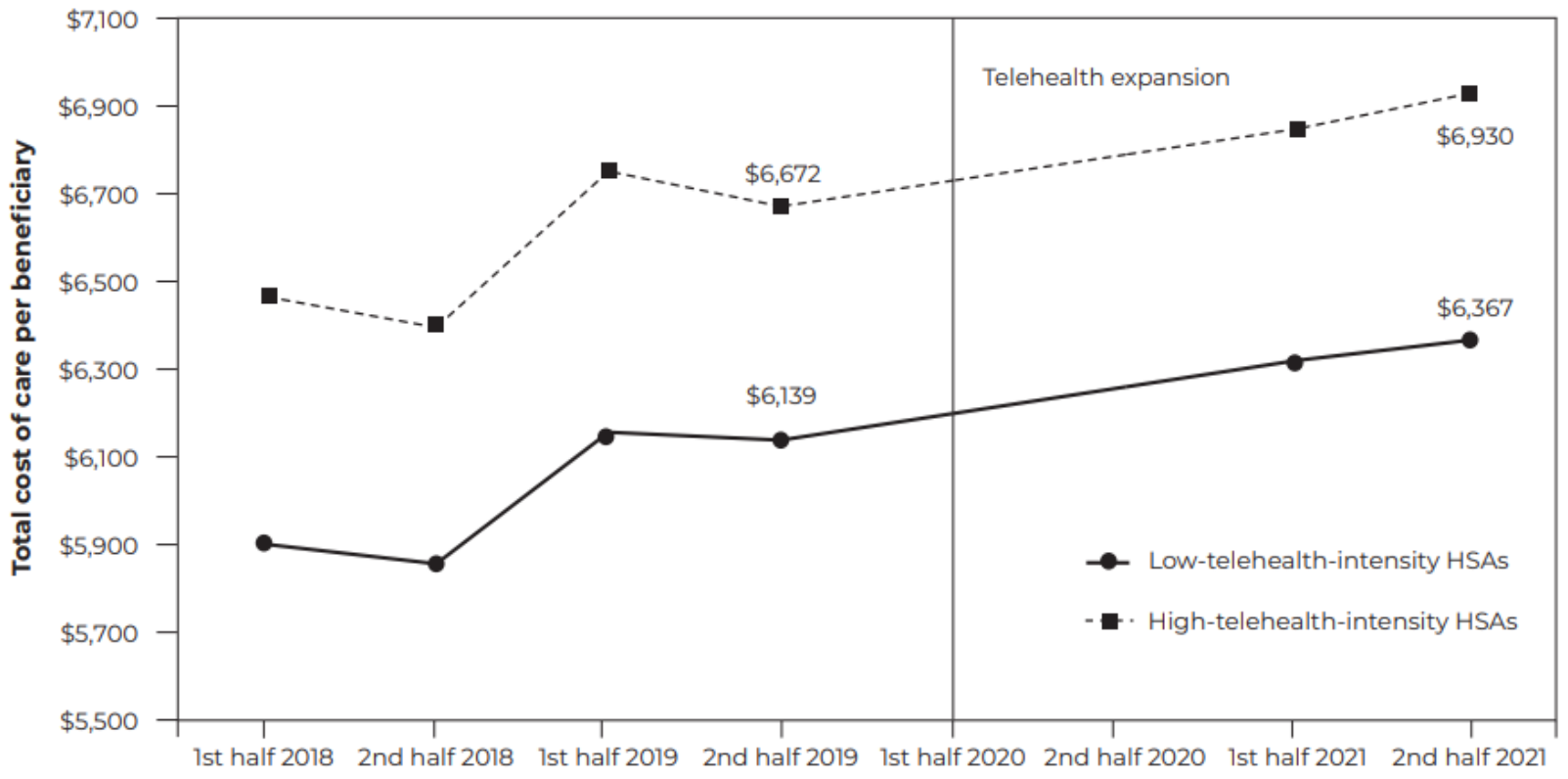
Exhibit 1: Program Integrity Measures

To identify providers whose billing for telehealth services poses a high risk to Medicare, we developed seven measures based on analyses of the Medicare data and input from OIG investigators. These measures focus on different types of billing that providers may use to inappropriately bill for telehealth services and include:

- billing both a **telehealth service** and a **facility fee** for most visits;
- billing telehealth services at the **highest, most expensive level** every time;
- billing telehealth services for a **high number of days** in a year;
- billing both **Medicare fee-for-service and a Medicare Advantage plan for the same service** for a high proportion of services;
- billing a **high average number of hours** of telehealth services per visit;
- billing telehealth services for a **high number of beneficiaries**; and
- billing for a telehealth service and **ordering medical equipment** for a high proportion of beneficiaries.

- 742,000 providers who billed Medicare for telehealth were evaluated
- Only 0.2% displayed a pattern of fraud or abuse

FIGURE 7–10 **Total cost of care per beneficiary across low- and high-telehealth-intensity HSAs**



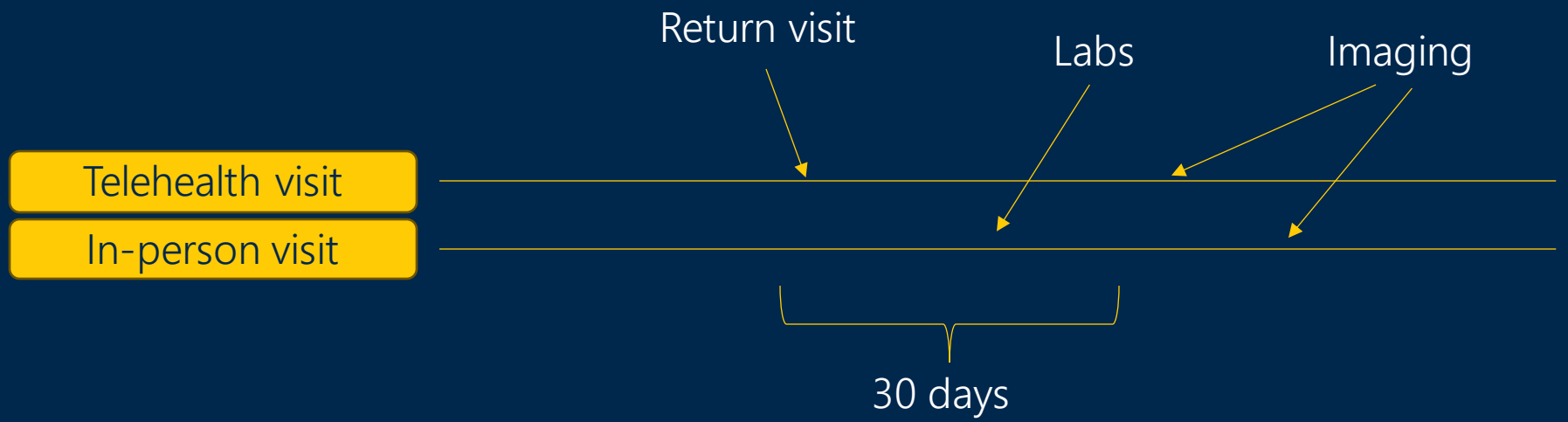
Note: HSA (hospital service area). We define "encounters" as unique combinations of beneficiary identification numbers, claim identification numbers (for paid claims), and national provider identifiers of the clinicians who billed for the service. We use the number of fee-for-service (FFS) Medicare beneficiaries enrolled in Part B to define encounters per beneficiary. There are about 3,400 Dartmouth-defined HSAs nationally. We created two levels of telehealth-use intensity by ranking HSAs based on the number of telehealth services per 1,000 FFS beneficiaries in the second half of 2021. We assigned the bottom third of HSAs to the low-telehealth-intensity level and the top third of HSAs to the high level. The figure shows trends from the second half of 2019 (before telehealth expansion) to the second half of 2021 (during the telehealth expansion). Other 2018 and 2019 time periods are included to show additional data points. Data from 2020 and the first half of 2021 are omitted.

Source: Analysis of FFS Medicare claims data.

MedPAC's estimate: Telehealth increases total healthcare spending by $165 per beneficiary for 6 months (about 2%)

The method used to make this assessment is subject to debate

Impact of telehealth on 30-episode costs

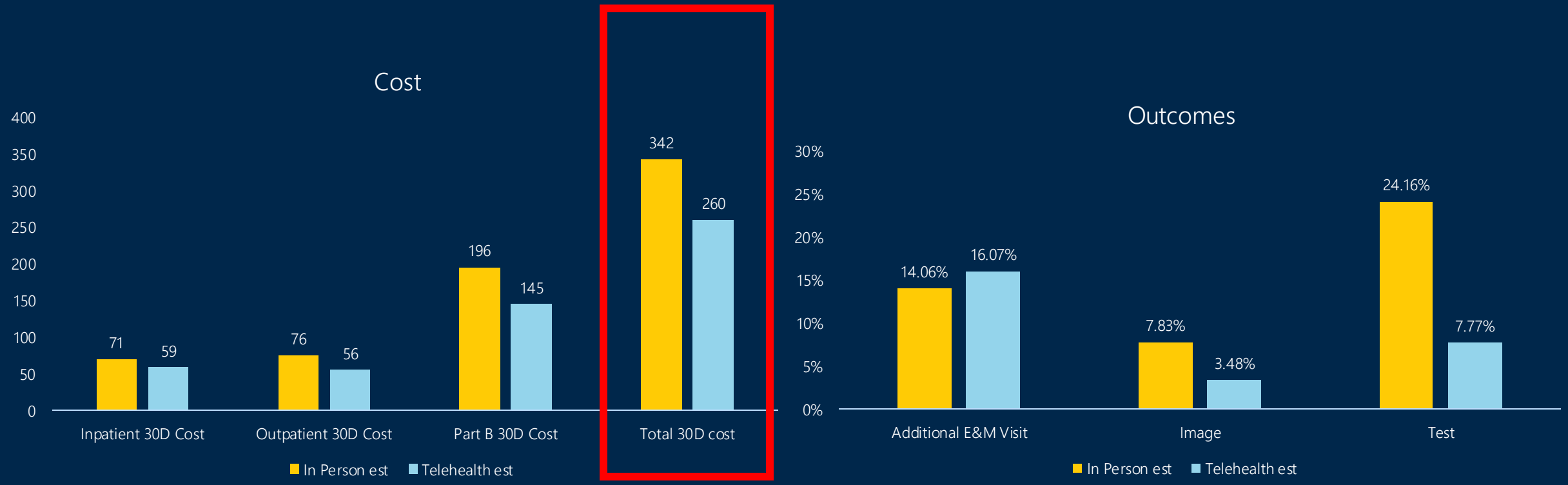


Data
- 100% national Medicare, July 2020-December 2022

Outcomes
- 30-day total payment (primary outcome) for payments within the same CCSR
- 30-day related visit rate
- 30-day related imaging rate
- 30-day related lab testing rate

Statistical analysis
- Propensity score matching: : CCSR, gender, age, race, rural, dual eligibility, HCC RAF score

Preliminary data



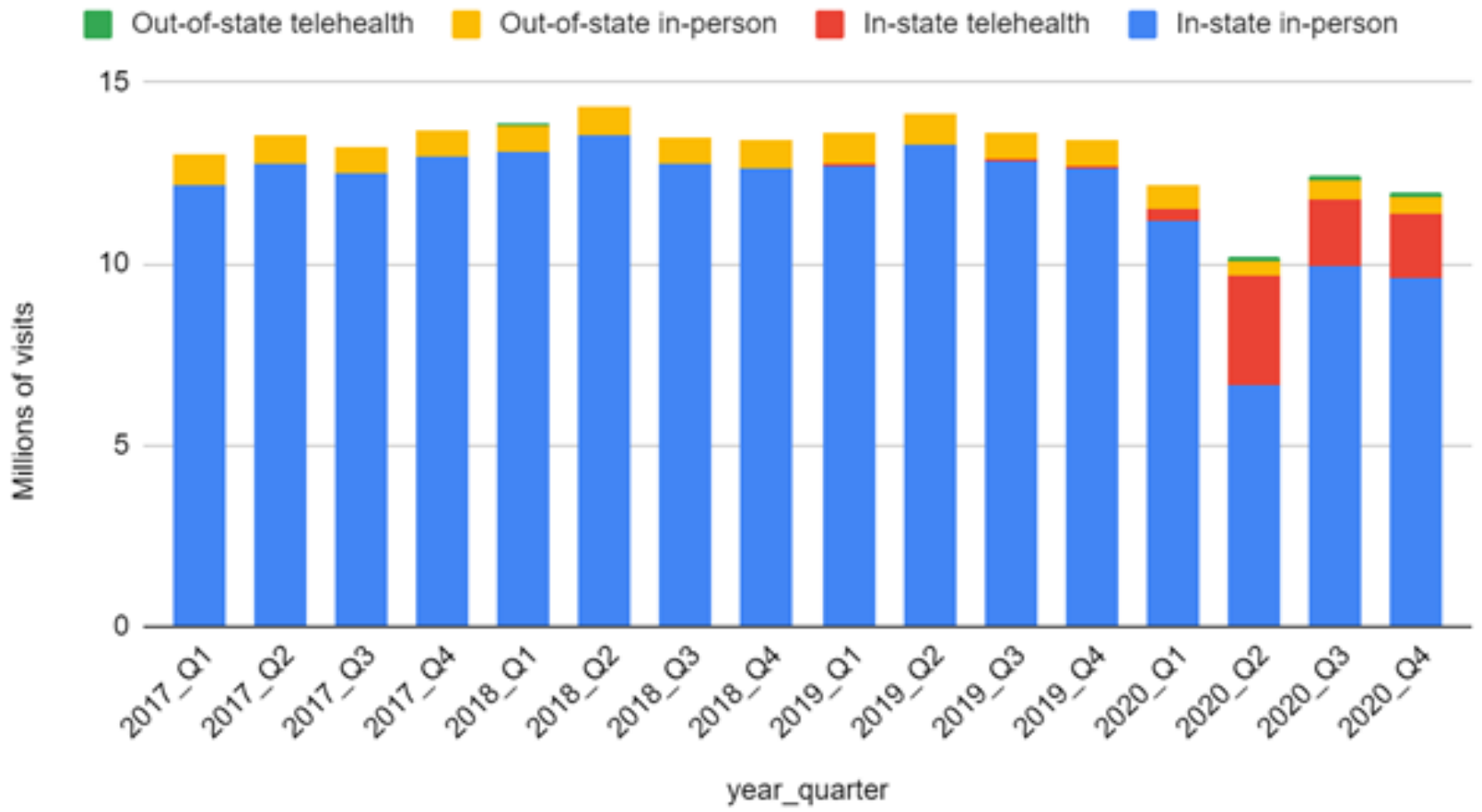
What is unknown and needed to inform policy?

- We need more cost studies
- Probably the highest impact area to work

- Research challenges and ideas
  - What is the best cost measure (total cost, related costs)
  - Duration of study (short episodes vs 6-month spending)
  - Selection bias

Appendix

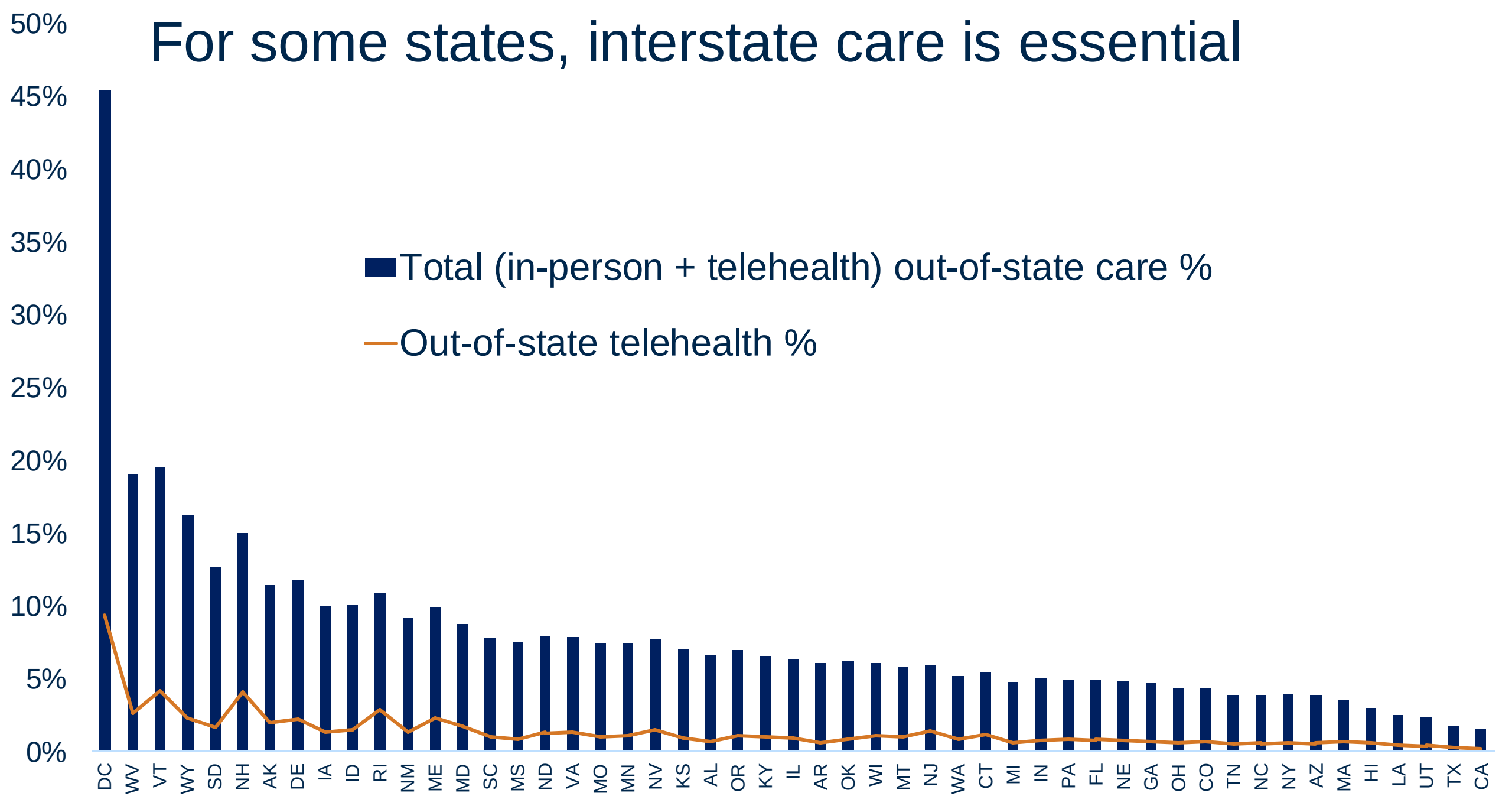
Interstate telehealth



- In 2020, out-of-state telehealth accounted for 0.8% of all visits, and made up 5% of all telehealth visits

Source: Andino J, Ellimoottil C. Trends in interstate healthcare use among Medicare beneficiaries (Health Affairs)

For some states, interstate care is essential



The Health Fund and the Ethel & James Flinn Foundation engaged the Institute for Healthcare Policy and Innovation at the University of Michigan to conduct a wide-ranging study on trends and developments in the use of telehealth technology in our state. The resulting report — *Telehealth in Michigan* — is a comprehensive collection of data that aims to offer policymakers and other interested parties insights regarding the impact of telehealth on healthcare access for Michigan residents.

The report looks at the telehealth usage in relation to demographic information, insurance coverage, geography, broadband access, and more. It offers a deep dive into the impact of telehealth on behavioral health care, as well as specific policy recommendations for using telehealth to increase access to care. The report is available here in full and in sections tied to specific areas of focus.

CLICK TO DOWNLOAD THE FULL REPORT

REPORT SECTIONS

- KEY TAKEAWAYS AND POLICY CONSIDERATIONS
- TELEHEALTH USE TRENDS AMONG MEDICARE, MEDICAID, AND COMMERCIALLY-INSURED INDIVIDUALS
- THE EFFECT OF TELEHEALTH EXPANSION ON USAGE IN RURAL AND NON-RURAL MICHIGAN COUNTIES
- THE RELATIONSHIP BETWEEN TELEHEALTH UTILIZATION AND BROADBAND ACCESS IN MICHIGAN
- THE IMPACT OF TELEHEALTH EXPANSION ON ACCESS TO BEHAVIORAL HEALTH SERVICES
- DEMOGRAPHIC CHARACTERISTICS OF TELEHEALTH USERS AND NON-USERS
- THE INFLUENCE OF LICENSURE WAIVERS ON TELEHEALTH SERVICES PROVIDED ACROSS STATE LINES
- TELEHEALTH USAGE BY FEDERALLY QUALIFIED HEALTH CENTERS AND RURAL HEALTH CLINICS