



# Connecting Promise & Practice: The Trajectory of Digitally Enabled Care

PRESENTED BY  
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Joseph Kvedar, MD  
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**March 14, 2023**

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# Our Presenters



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*Senior Vice President,  
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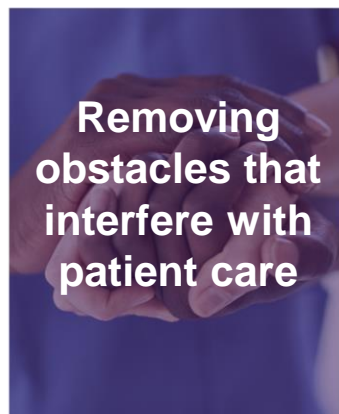


**Joseph Kvedar, MD**  
*Co-Chair*  
**AMA Digital Medicine  
Payment Advisory Group**  
*Immediate Past Chair*  
**American Telemedicine  
Association**



**Zach Hochstetler**  
*Director, CPT® Editorial and  
Regulatory Services*  
**American Medical  
Association**

# AMA: The Physicians' Powerful Ally in Patient Care



# AMA: Driving the Future of Digital Health



**AMA DIGITAL  
HEALTH RESEARCH**  
(2016, 2019, 2022)



**AMA DIGITAL HEALTH  
PLAYBOOK SERIES**  
(RPM, TELEHEALTH)



**COMPREHENSIVE  
AMA TELEHEALTH  
INITIATIVES**



**DATA STANDARDS &  
INTEROPERABILITY  
INITIATIVES**



**HEALTH 2047**



**AMA RETURN ON  
HEALTH RESEARCH  
& VALUE  
FRAMEWORK**



**AI PRINCIPLES**



**CPT® CODING &  
PAYMENT  
GUIDANCE**



**ENSURING EQUITY  
IN INNOVATION**



**STATE & FEDERAL  
ADVOCACY**



**PRIVACY  
PRINCIPLES**  
(PRIVACY BY DESIGN)

**Making technology an asset in the delivery of healthcare, not a burden.**



# Future of Health

## Closing the Digital Health Disconnect: A Blueprint for Optimizing Digitally Enabled Care



Research collaboration led by

Manatt  
Health

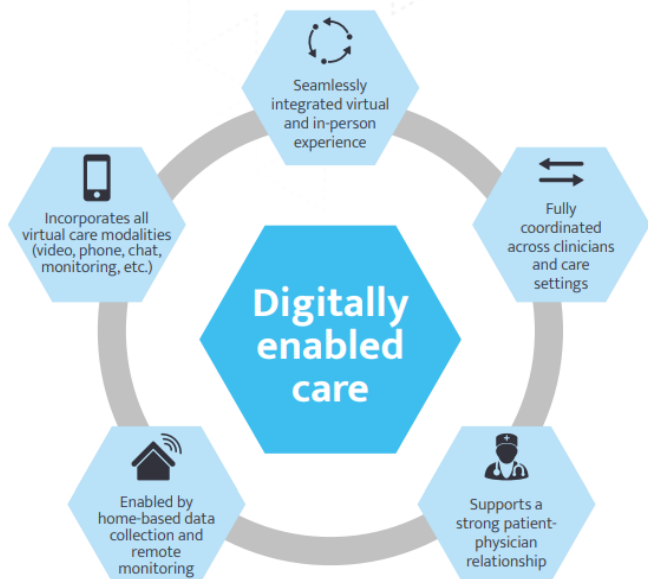
- Physicians and patients have embraced digital health and want progress to continue.
- Despite progress, the full potential of digitally enabled care has not yet been realized; industry is at an inflection point to navigate existing/emerging models.
- Collaboration will be essential to ensure care fragmentation is not exasperated, and that continuity of care and improved outcomes can be improved.
- Building on our [Digital Health Implementation Playbook series](#), AMA and Manatt Health [developed a Return on Health value framework](#) for assessing the value of digitally enabled care.
- Next, launched an initiative focused on [Future of Health – Closing the Digital Health Disconnect: A Blueprint for Digitally Enabled Care](#) with 40+ contributors
  - (Health systems, VCs, health plans, physicians in various settings, patients, companies).



Physicians' powerful ally in patient care

# How do we accomplish optimal digitally enabled care?

## GOAL: DIGITALLY ENABLED CARE



## CURRENT STATE: DIGITAL HEALTH DISCONNECT

Physicians	Health plans	Employers	Health systems	Patients and families	Investors	Health tech companies
<p>Overwhelmed but interested</p> <p>Overwhelmed by options/operational considerations and rapidly changing ecosystem but interested in meeting the needs of their patients and staff. Conscious of telehealth reimbursement but not digital broadly.</p>	<p>Motivated by savings and outcomes, including equity and experience</p> <p>Active in offering digital tools to members and exploring new models of care to the extent they reduce total cost of care.</p>	<p>Overwhelmed by the options</p> <p>Interested and motivated by savings and employee experience but overwhelmed by the options and number of companies.</p>	<p>Thoughtfully integrating but generally risk averse</p> <p>Rapid adoption of telehealth during the pandemic; rethinking strategic integration of telehealth in the broader delivery of care while balancing the need for short-term returns.</p>	<p>Motivated by convenience and experience</p> <p>Enjoy the convenience and access provided by digital care but still appreciate face-to-face time with providers based on specific need(s) or symptom(s).</p>	<p>See huge opportunity but also signs of exuberance</p> <p>Explosive growth in digital health investments driven by the pandemic and accelerated adoption of digital tools; expecting a down year and significant consolidation.</p>	<p>See huge opportunity but pressure to show value and scale</p> <p>Explosive growth in digital health investments; volatile market requiring companies to show value and adjust to current economic conditions.</p>

BLUEPRINT FOR OPTIMIZING DIGITALLY ENABLED CARE	
FOUNDATIONAL PILLARS	 <p>Build for <b>patients and clinicians</b></p>
	 <p>Design with an <b>equity lens</b></p>
	 <p>Recenter care around the patient-physician <b>relationship</b></p>
	 <p>Improve and adopt payment models that incentivize <b>high-value care</b></p>
	 <p>Create technologies and policies that <b>reduce fragmentation</b></p>
	 <p>Scale <b>evidence-based</b> models quickly</p>
SHAREHOLDER OPPORTUNITIES	<p><b>Physicians</b></p> <p>Implement workflow tools that create efficiency and optimize care; participate in technology design and implementation; connect with peers; optimize EHRs; partner to extend capabilities</p>
	<p><b>Health plans</b></p> <p>Evaluate effectiveness of new models; offer equitable payment; better design VBP; enable equitable cost sharing to in-person services; require information sharing with members' PCPs; simplify administrative burden</p>
	<p><b>Employers</b></p> <p>Incentivize employee relationships with PCPs; require information sharing with employees' PCPs and adherence to quality metrics; develop multicondition platforms; create on-site virtual care environments</p>
	<p><b>Policy makers</b></p> <p>Permanently extend telehealth flexibilities; increase broadband and effectiveness research funding; strengthen interoperability; support equitable coverage and payment of telehealth services</p>
	<p><b>Health tech companies</b></p> <p>Seek patient and provider input; center designs in health equity; simplify provider workflows; incorporate "privacy by design"; improve coordination with other providers</p>
	<p><b>Venture capital and private equity funds</b></p> <p>Direct investments to companies that work with incumbents, address needs of vulnerable populations and perform efficacy research of their products; reduce fragmentation</p>



# Key Focuses for Next Steps

**How is digitally enabled care paid for today? How should it optimally be paid for in the future?**

- Work with key stakeholders to outline existing payment approaches for digitally enabled care (categorized by top use cases), as well current barriers/opportunities for improvements

**How do we ensure interoperability improves versus worsens as more patients utilize both in-person and virtual (DTC, retail, virtual) offerings?**

- Work with Advocacy/existing partners such as Sequoia, Carequality and EHR vendors

**What outcomes/successful collaborations are being accomplished and by whom?**

- Develop consortium of industry partners committed to digitally enabled care and sharing outcomes
- Co-develop a case study showcase using the AMA ROH framework, categorized by top use cases

Scan this QR code to access the [AMA Future of Health Report](#), get in touch and share your successes!



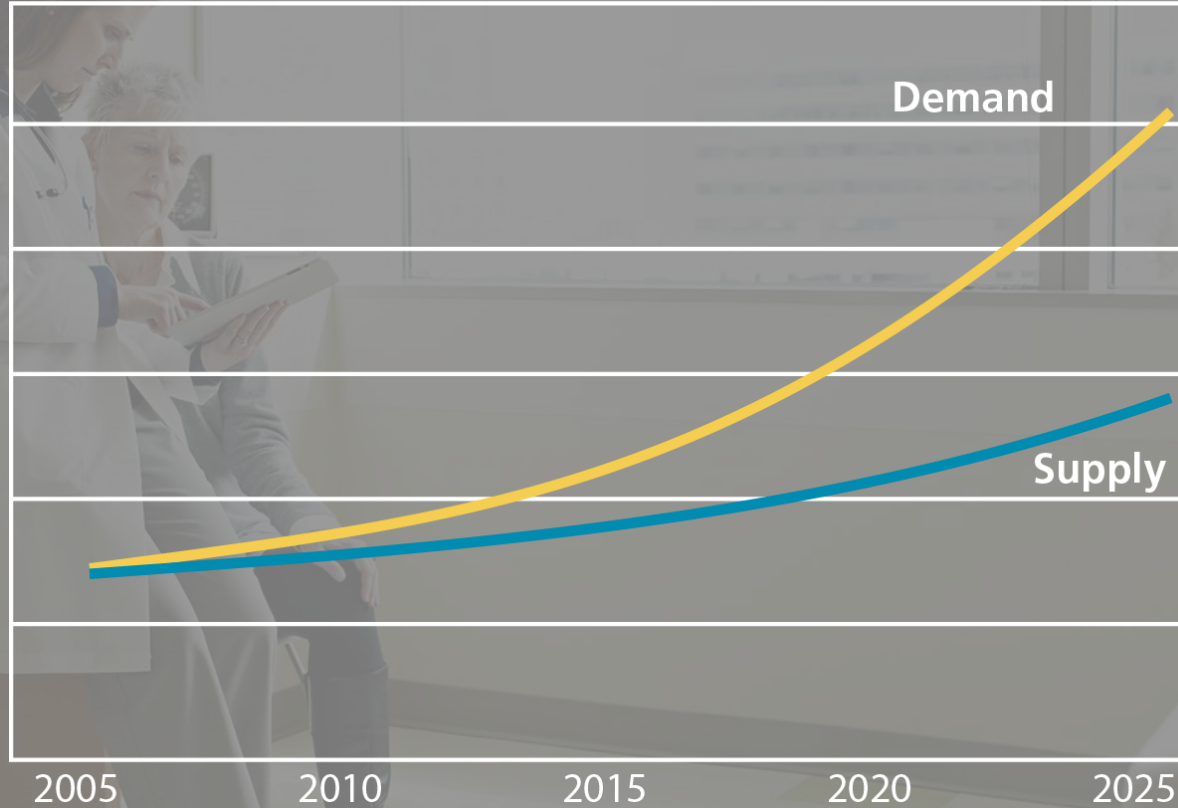
# The Realities of Telehealth Adoption in 2023

## Joseph C. Kvedar, M

Professor of Dermatology, Harvard Medical School  
Senior Advisor, MGH Center for Innovation in Digital Healthcare  
Immediate Past Chair, American Telemedicine Association  
Co-chair, AMA Digital Medicine Payment Advisory Group  
Editor-in-Chief, *npj* Digital Medicine



# Ratio of Providers to Patients



Where is telehealth  
2019-2023?

**24-fold more activity**



Source: Fairhealth.org

# “Telehealth is here to stay”

## NOTABLE YEAR-OVER-YEAR INCREASES IN TELEMEDICINE USE

2022, by demographic group

Source: Rock Health



### RURAL

73% of rural respondents report telemedicine use

13pp increase;  
60% in 2021



### UNINSURED

50% of respondents with no insurance report telemedicine use

13pp increase;  
37% in 2021



### AGE 55+

76% of respondents aged 55+ report telemedicine use

12pp increase;  
64% in 2021



### WOMEN

82% of women respondents report telemedicine use

9pp increase;  
73% in 2021



### HISPANIC

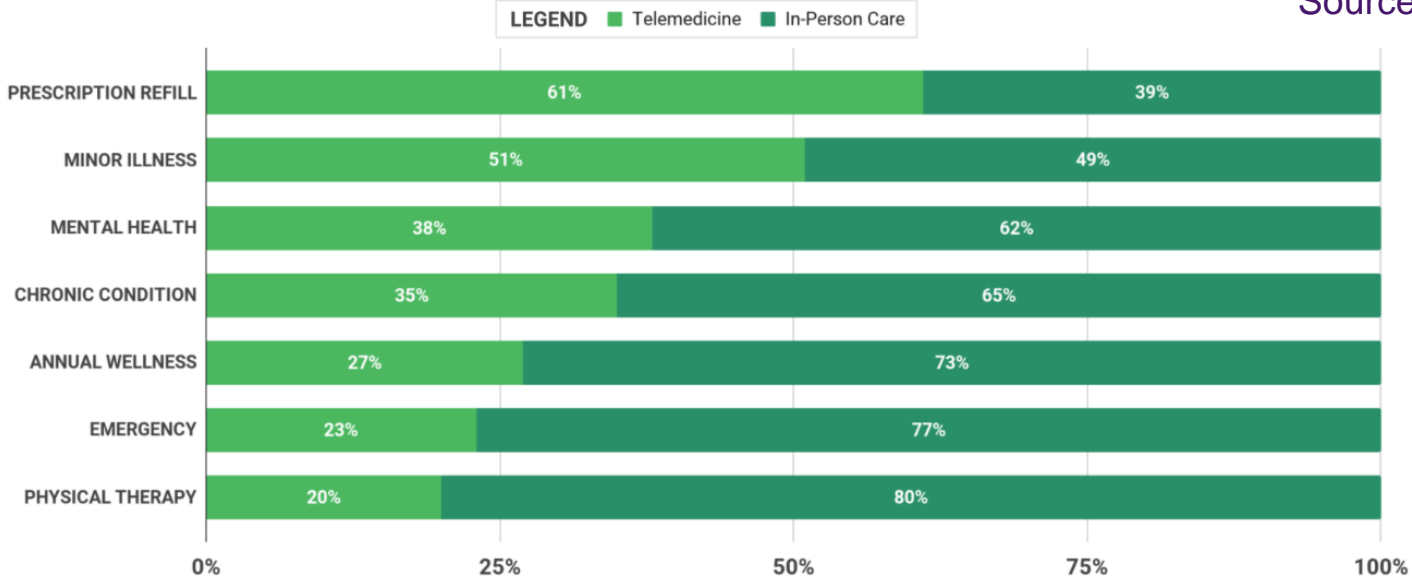
82% of Hispanic respondents report telemedicine use

9pp increase;  
73% in 2021


# Patient Preferences

## PREFERENCE FOR TELEMEDICINE VERSUS IN-PERSON CARE

2022, by care need



Source: Rock Health



**We have successfully  
brought the doctor's  
office into the home**

# Alignment of three groups is necessary to scale further





# Patients are enthusiastic

83% -  
good visit  
quality

78% -  
virtual visits  
with regular  
provider

83% - patient-  
provider  
communication  
strong

78% -  
health  
concern  
addressed

75% - would  
continue using  
telehealth for  
chronic  
disease  
management

<https://c19hcc.org/telehealth/patient-survey-analysis/>



# Providers are reticent

# Economic Realities

- › Reimbursement uncertainty
- › Omnibus bill extends many regs through 2024
- › The threat of lower reimbursement
- › Administrative complexity is high
- › Inertia is real

# Economic Realities

- › Audio only? Asynchronous? RPM? RTM?
- › For some, specialists visits alone are financially uninteresting
- › Hospitals lose revenue on telehealth

# Workflow Challenges

A woman in a call center headset is smiling and gesturing with her hand. In the background, another person is also wearing a headset and looking at a laptop. The setting appears to be a call center or a customer service desk.

- › Triage processes
- › EHR integration
- › Efficiency of operations

# Payers are ambivalent

- › Members want telehealth
  - + Concerns about overutilization
  - + Concerns about fraud
  - = confusing payment policies
- › Battle for control—products and services that work around your doctor
- › Virtual first offerings

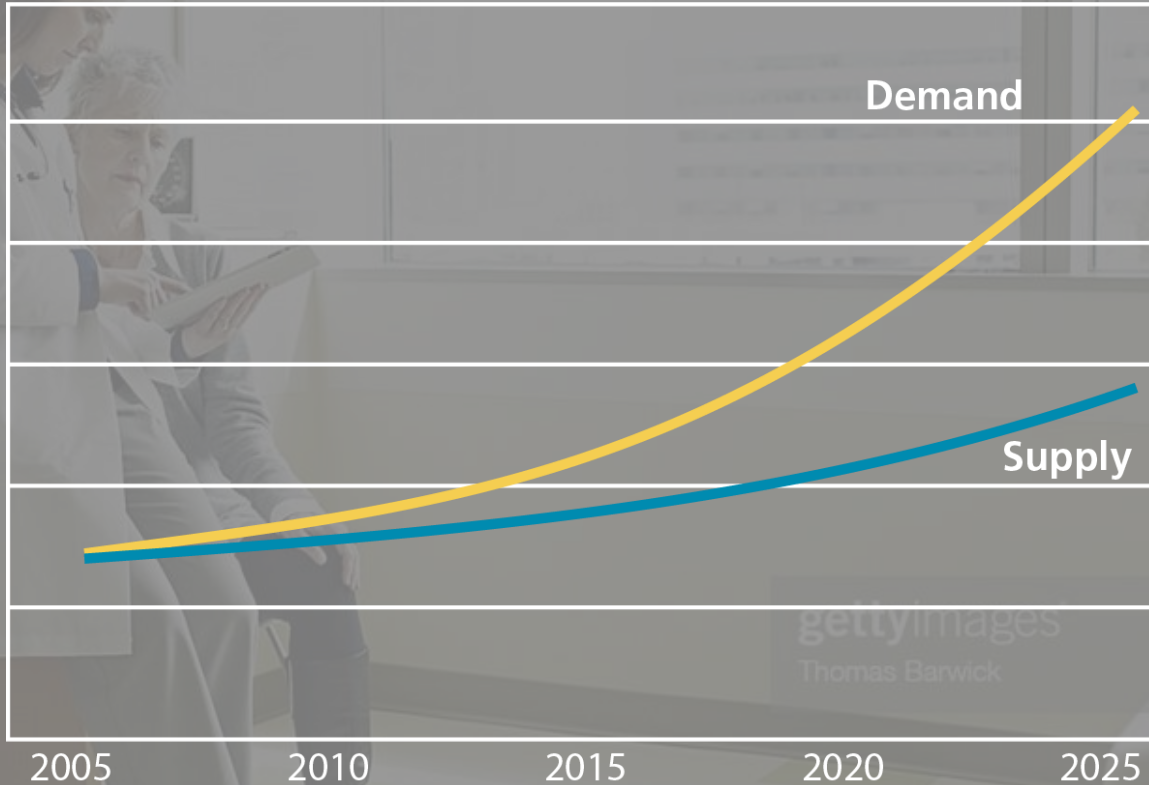
# Questions?

Who will win the battle for primary care?

When will we see more efficient modes (e.g., asynch, RPM) dominate?

What is the “right” proportion of telehealth?

# Ratio of Providers to Patients





# Trends in Emerging Care, Reported by CPT® Codes for Digital Medicine Services

**Zach Hochstetler**

Director, CPT Editorial and Regulatory Services  
Secretary, CPT Editorial Panel



# Key Takeaways

1

Prior to the COVID-19 pandemic, adoption of digital medicine services struggled due to limited payment and coverage options, as well as regulatory burdens.

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2

Digital medicine services saw sharp increases immediately following the pandemic and has seen a leveling off since. Digital medicine services play a critical role in health equity.

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3

Regulatory and payment challenges remain, but options for reporting through the CPT<sup>®</sup> code set continue to increase.

# Telemedicine Adoption Before the Pandemic



**High  
Regulation**



**Low  
Adoption**

# Pre-pandemic Regulation

Geographic and  
originating site  
restrictions on  
Medicare telehealth  
services.

Non-coverage of  
audio-only services.

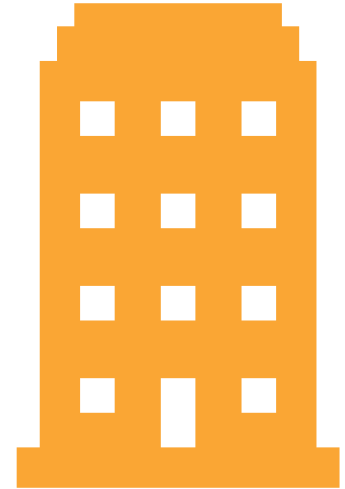
RPM services must  
have an established  
relationship.

1. Does it work?

2. Will I receive proper payment?

3. Will I be liable?

4. Will it work in my practice?

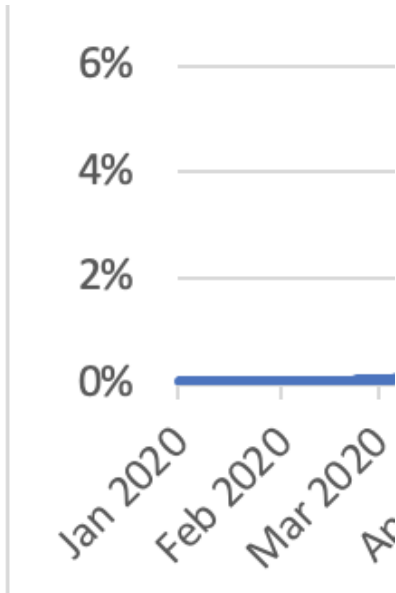


## Physicians' key requirements for technology adoption

AMA Digital Health research, 2016, 2019, 2022

# Pre-pandemic Adoption: *Telemedicine Medicare Spend*

0.1 Percent



Persons served percentage\*

2019\_Q4

77%

Enrollees with at least one telehealth service

% of all FFS enrollees

0%

% of persons served

0%

Enrollees with only telehealth services\*\*

% of all FFS enrollees

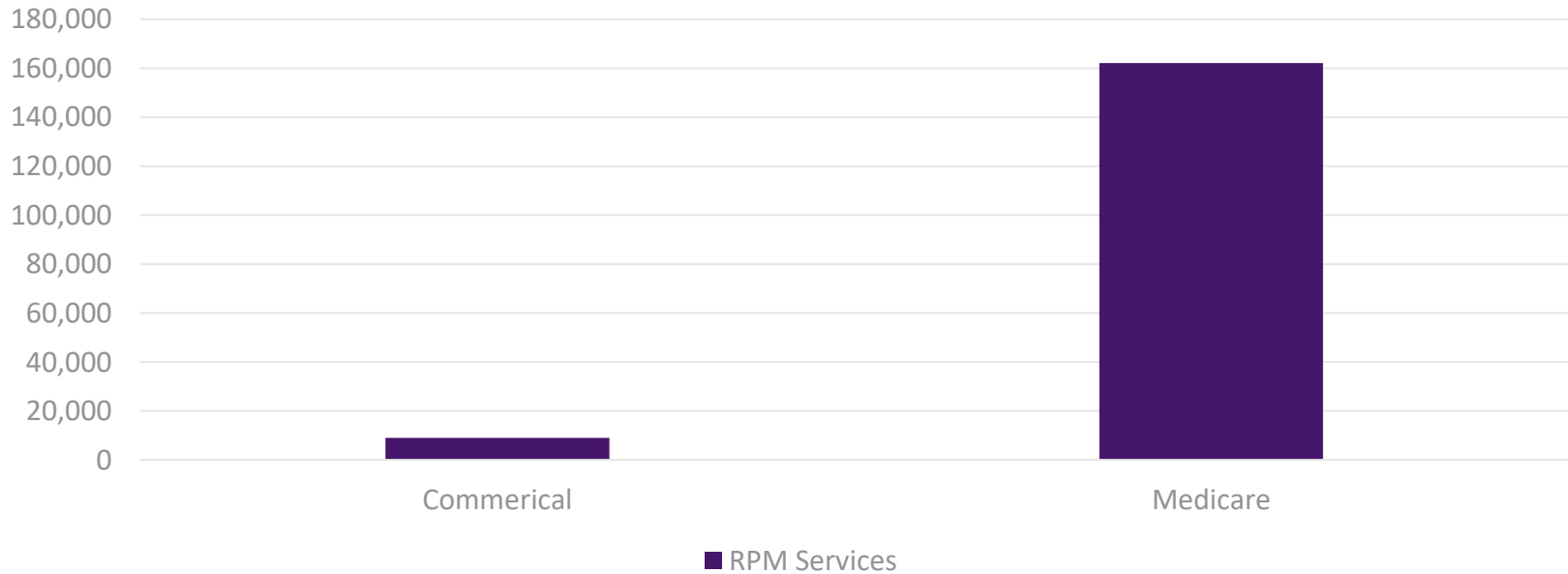
0%

% of persons served

0%

# Pre-pandemic Adoption: *Remote Physiologic Monitoring (RPM)*

## RPM Volume—Pre-Pandemic (2019)

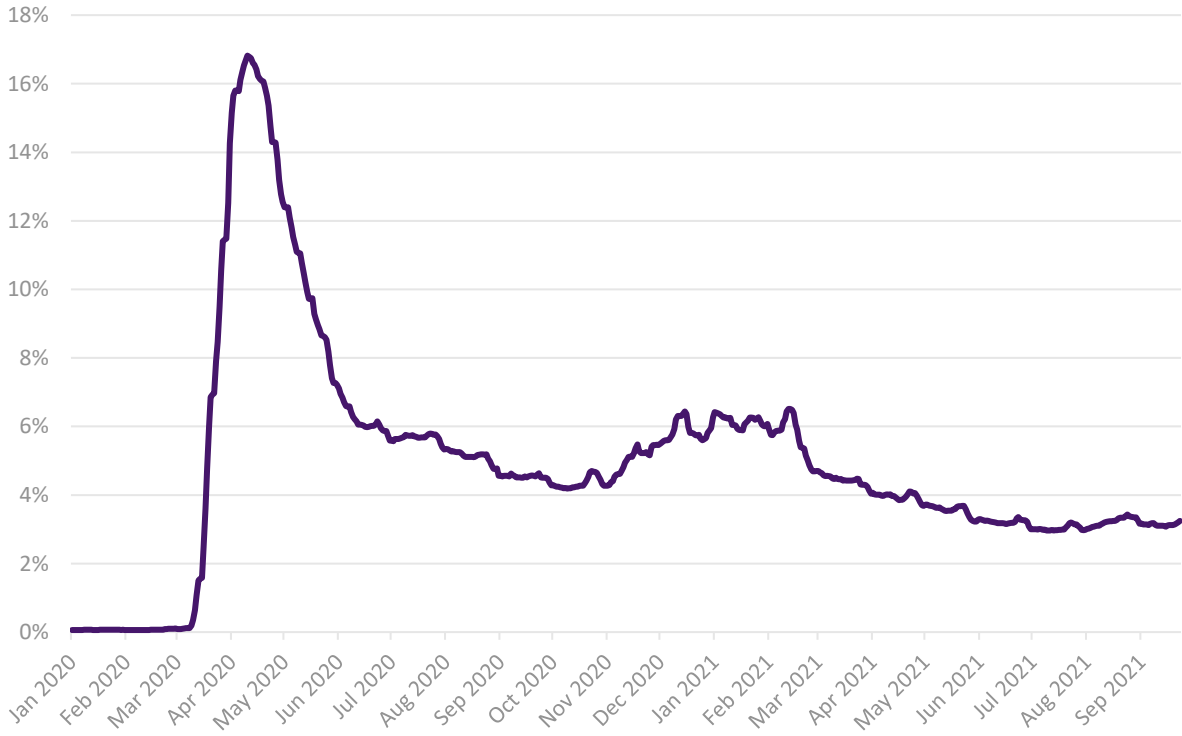


# Utilization Following the Covid Outbreak





# Telehealth Spending as Share of MPFS\* Total: *January 2020 to September 2021*



\*Medicare Physician Fee Schedule

# Persons Served and Telehealth Usage by Quarter and Year

## Quarterly results of Medicare Persons Served\*

	2019_Q4	2020_Q1	2020_Q2	2020_Q3	2020_Q4	2021_Q1	2021_Q2	2021_Q3
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### Enrollees with at least one telehealth service

<b>% of persons served</b>	0%	6%	<b>43%</b>	26%	25%	24%	17%	15%
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### Enrollees with only telehealth services\*\*

<b>% of persons served</b>	0%	0%	<b>10%</b>	3%	3%	3%	2%	1%
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\*Share of Medicare Part B fee-for-service enrollees that received at least one MPFS service in the period.

\*\*Enrollees receiving MPFS services (if any) exclusively via telehealth.

# Highlighting the Importance of Telemedicine to Support Underserved Populations

Telemedicine Visits, by Specialty and Mode of Interaction, at Johns Hopkins Medicine.\*

... has shown increased use of audio-only visits among marginalized groups, including greater use among patients who identify as Black as compared with those who identify as White, patients whose primary language is Spanish as compared with primarily English-speaking patients, older as compared with younger patients, and publicly insured as compared with privately insured patients.

Specialty	Total Visits	Video-Only Visits	Audio-Only Visits
Oncology	72,076	60,051 (85)	12,045 (17)
Cardiology	55,602	45,313 (81)	10,289 (19)
Gastroenterology	51,896	49,436 (95)	2,460 (5)
Neurology	45,351	41,496 (91)	3,855 (9)
Endocrinology	39,129	36,644 (94)	2,485 (6)

\*Data are from period from March 16, 2020, through August 30, 2022

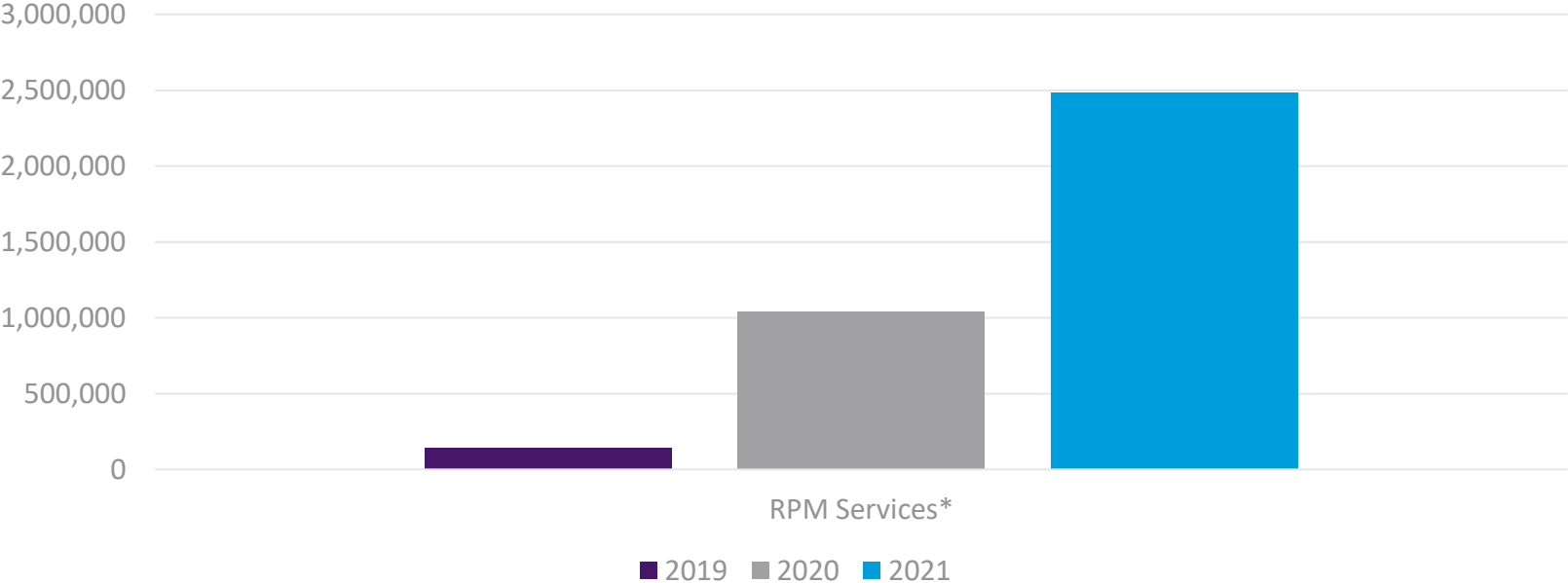
DOI: 10.1056/NEJMp2118292



Physicians' powerful ally in patient care

# Medicare Utilization Adoption: *RPM Codes*

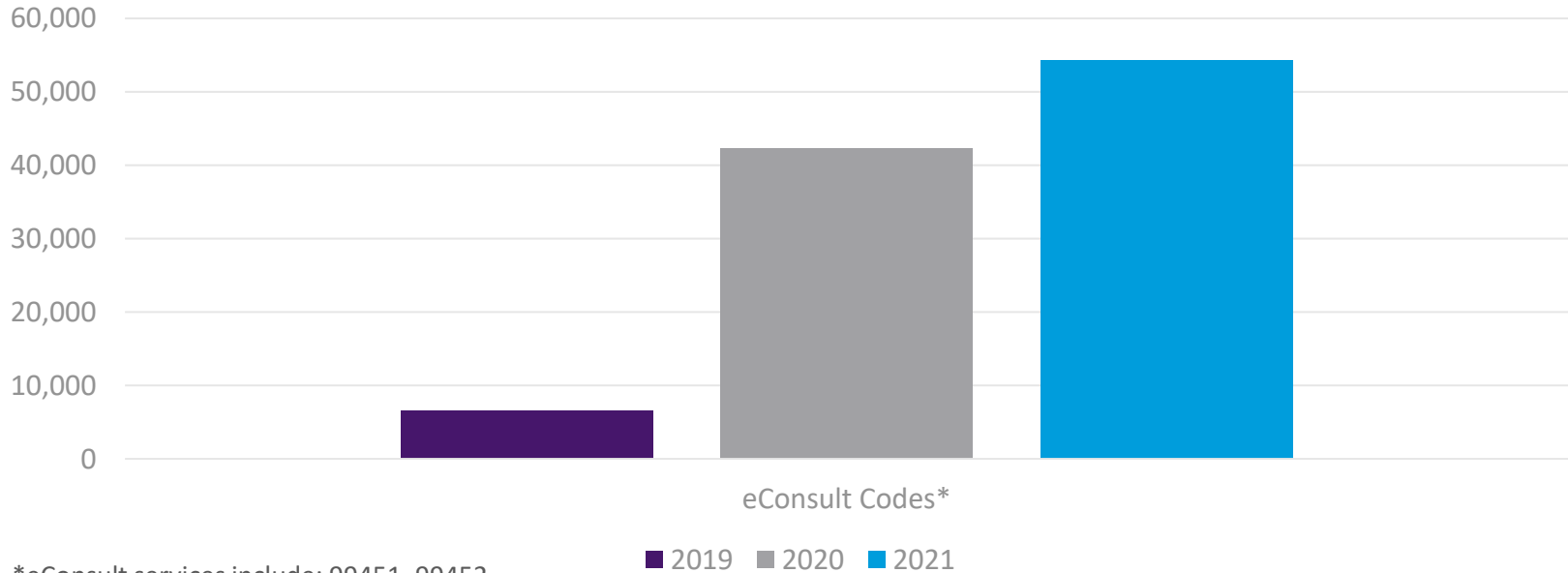
## Remote Physiologic Monitoring



\*RPM services include: 99091, 99453, 99454, 99457, 99458

# Medicare Utilization Adoption: *eConsults Codes*

## Interprofessional telephone/internet/EHR consultation



# Enhancing Digital Medicine Adoption

**AMA & CPT<sup>®</sup> Editorial Panel Actions  
Since the Start of the Pandemic**



## Remote Therapeutic Monitoring (RTM) & eVisits



## Continued Advocacy & New CPT® Codes



## Modifier 93 – Audio-Only



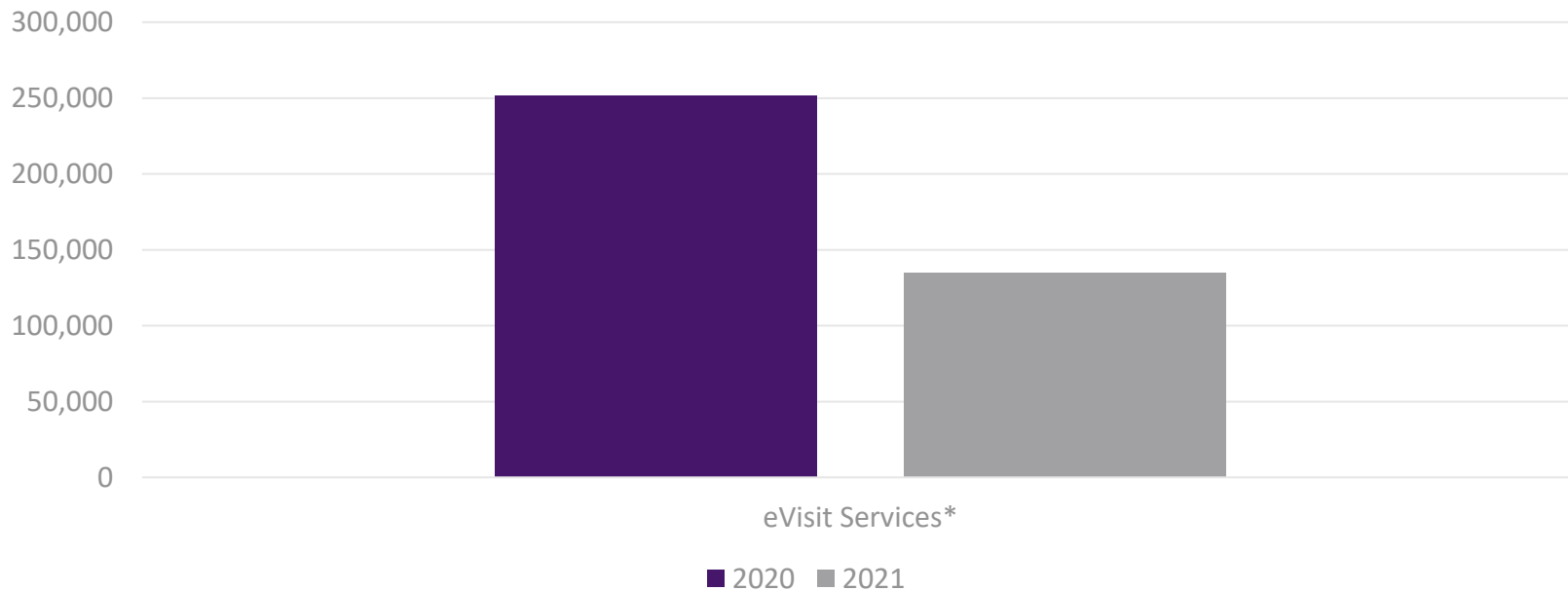
## AI/Digital Medicine Definitions

- Digital Medicine-Services Taxonomy
- AI taxonomy



# Medicare Utilization Adoption: *eVisit Codes*

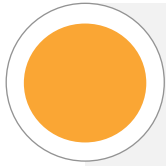
## Online Digital Evaluation and Management



\*eVisit Services include: 99421, 99422, 99423, 98970, 98971, 98972



# Remote Therapeutic Monitoring (RTM) Codes



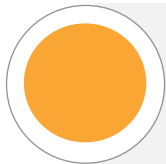
## Adopted for 2022

Medicare covers all RTM services. Still awaiting Medicare utilization for 2022.



## Similar Structure as RPM

Contains codes for education and set-up, device supply, and remote treatment management.



## Opportunities to Expand

Code structure is based on body systems and therapies. Currently include: respiratory, musculoskeletal, cognitive behavior therapy (CBT).





## CPT early releases

[CATEGORY I VACCINE CODES](#) | [CATEGORY III CODES](#) | [PLA CODES](#) | [APPENDIX S: AI TAXONOMY](#) |

[AUDIO ONLY MODIFIER 93](#)

# Audio-only modifier 93 for reporting medical services

## CONTENTS

[Modifier 93 descriptor](#) | [Download descriptor](#)

At its September 2021 meeting, the CPT® Editorial Panel accepted the addition of Modifier 93, which allows reporting of medical services that are provided via real-time interaction between the physician or other qualified health care professional and a patient through audio-only technology. The use of this modifier is effective Jan. 1, 2022.

### Modifier 93 descriptor

Synchronous telemedicine service rendered via telephone or other real-time interactive audio-only telecommunications system

<https://www.ama-assn.org/practice-management/cpt/cpt-appendix-audio-only-modifier-93-reporting-medical-services>

# AI/Digital Medicine Definitions

# CPT<sup>®</sup> Appendix R: Digital Medicine Services Taxonomy

Taxonomy displays CPT<sup>®</sup> services based on encounter activity

## Physician-to-Patient Services (e.g., visit)

- Synchronous
- Asynchronous

## Physician-to-Physician Services (e.g., consultation)

- Synchronous
- Asynchronous

## Patient Monitoring Services

- Device/software set-up and education
- Data transfer
- Data interpretation services

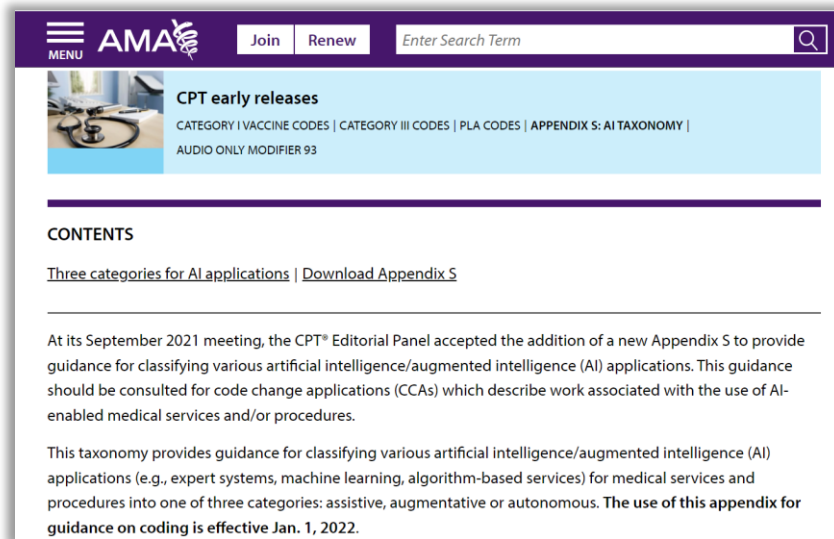
## Digital Diagnostic Services

- Patient directed
- Image/specimen directed

# CPT® Appendix S: AI taxonomy for medical services & procedures

The AI Taxonomy provides and defines distinct categories to describe the work done by the machine on behalf of the physician based on:

- Technical features and performance of emerging AI products and services
- Effect on the work of the Physician/QHP
- Discrete components of work in order to facilitate valuation



The screenshot shows the top navigation bar of the AMA website with a search bar and links for 'Join' and 'Renew'. Below the navigation bar is a header section for 'CPT early releases' with a sub-header for 'APPENDIX S: AI TAXONOMY'. The main content area is titled 'CONTENTS' and includes a link to 'Download Appendix S'. The text below explains that the CPT Editorial Panel accepted the addition of a new Appendix S to provide guidance for classifying various artificial intelligence/augmented intelligence (AI) applications. It also states that the use of this appendix for guidance on coding is effective Jan. 1, 2022.

[ama-assn.org/cpt-ai-taxonomy](https://ama-assn.org/cpt-ai-taxonomy)

# Continued Advocacy & Adoption of New CPT® Codes

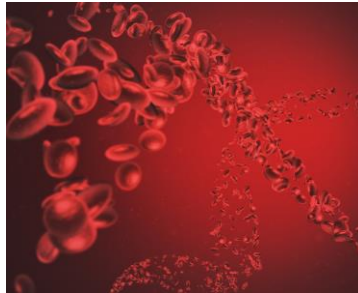
## New CPT Codes

### AMA Advocacy Efforts



- Support legislation that would **lift the rural-only restriction** and add any site where a patient is located as an originating site.
- Payments should be **fair and equitable**, regardless of whether the service is performed via audio-only, two-way audio-video, or in-person.
- Outlining the importance of telehealth in addressing **long-standing health inequities** among historically marginalized and minoritized communities.

### Coronary fractional flow reserve



Effective on Jan. 1, 2024, the Panel created a new code to report a non-invasive estimate of coronary fractional flow reserve derived from **augmentative software analysis** of the dataset from a coronary computed tomography angiography.

7X005

### Assistive algorithmic electrocardiogram



For the CY 2023 CPT code set, the Panel created two codes to report **assistive algorithmic** electrocardiogram risk assessment for cardiac dysfunction.

0764T | 0765T

### Remote retinal imaging



For the CY 2021 CPT code set, the Panel created a new code 92229, which describes technology that identifies diabetic retinopathy through **automated AI**, which set a foundation for the first truly automated AI service in the CPT code set.

92227 | 92228 | 92229

# Questions?



**Closing the Digital Health Disconnect:  
A Blueprint for Digitally Enabled Care**



**The Realities of Telehealth Adoption in 2023**



**Trends in Emerging Care, Reported by  
CPT® Codes for Digital Medicine Services**



# Stay informed with AMA resources

The **Future of Health Report** was prepared by the AMA and Manatt Health, and builds on the AMA's [Return on Health research](#) to explore and define the disconnect between the transformative potential of digital health, and the reality of its impact today; offer a blueprint to optimize digitally enabled care; and share stakeholder opportunities to leverage digital care through case examples from various organizations.

<https://www.ama-assn.org/practice-management/digital/driving-future-health>

The **AMA Future of Health Immersion Program** is a comprehensive curriculum of curated webinars, interactive peer-to-peer learning sessions, virtual discussions, bootcamps and resources available on demand, and designed to enable practices.

<https://www.ama-assn.org/practice-management/digital/ama-future-health-immersion-program>

Designed to address the needs of developers and creators of health technology and services, the **CPT® Developer Program** offers access to AMA-published content from Current Procedural Terminology (CPT) during the crucial stages of development.

[developer.ama-assn.org](https://developer.ama-assn.org)

The **Physician Innovation Network** connects physicians and entrepreneurs to partner on new digital health care solutions.

[innovationmatch.ama-assn.org](https://innovationmatch.ama-assn.org)

The **In Full Health Learning & Action Community to Advance Equitable Health Innovation** initiative seeks to advance equitable opportunities in health innovation investment, solution development and purchasing.

[InFullHealth.org](https://InFullHealth.org)

The CPT Editorial Panel has responded to the fast pace of digital health innovation with two taxonomies. **Appendix R**, a taxonomy for **digital medicine services**, supports increased awareness and understanding of approaches to patient care through the multifaceted digital medicine services available for reporting in the CPT code set. **Appendix S** provides guidance for classifying various **AI-powered medical service applications**, into one of three categories: assistive, augmentative, or autonomous.

[ama-assn.org/cpt-ai-taxonomy](https://ama-assn.org/cpt-ai-taxonomy)

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# Next Steps



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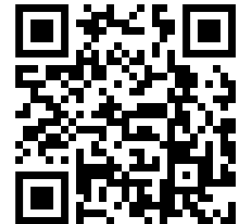
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