EXPLORING THE FRONTIERS
OF TELEHEALTH

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3,000 Rivers

100,000 Glaciers

3,000,000 Lakes

100 Volcanoes

11% of the World's Earthquakes

1 Bear to Every 21 People

17 of the 20 highest mountain peaks in the United States are in Alaska, including the highest (Denali) at 20,320 feet above sea level.

Alaska has more coastline than the rest of the United States combined, roughly 34,000 miles.

Juneau has no road access to the rest of the state. It is the only capital city in the United States accessible only by boat or plane. It is also the largest, covering 3,108 square miles.

Anchorage's Lake Hood is the world's largest and busiest seaplane base. Over 800 take offs and landings happen on a busy summer day.

It is illegal to whisper in someone's ear while they are moose hunting in Alaska

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WILDERNESS SHOP · LAKEWOOD OH

· SHMC ·

TO:
GEETING AVIATION,
Box 42
TALKEETNA,
AL 99676

- Interactive Video Conferencing
- Store & Forward
- Remote Patient Monitoring
- Provider Mentoring (ECHO)
- Provider to Provider
- Patient to Provider

Telehealth INSTEAD of in-person

- mHealth
- Direct to Consumer / eVisits
- Supervision
- Transfer of Care
- EHR functionality
- Patient Navigation / Texting
- Wayfinding
- Alternative care sites
- DIGITAL HEALTH

Telehealth ENHANCES experience and efficiencies

Digital Health

Digital health is the convergence of **digital** technologies with **health**, **healthcare**, living, and society to enhance the efficiency of **healthcare** delivery and make medicines more personalized and precise.

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"Telehealth" is 1 Component of "Digital Health"

Telehealth Serves as a Communication Tool Within the Broader IT Space

Technology Functions in Health Care

| Documentation, Data Storage | Predictive Analytics | **Communication, Remote Consultation** | Robotics, Surgical Support | Virtual, Augmented Reality |

Telehealth represents the interactive, electronic exchange of information for the purpose of diagnosis, intervention, or ongoing care management between a patient and/or health care providers situated remotely.

Patient-to-Provider

- E-visits
- Wearables
- Secure messaging

Telehealth Modalities

- Real-time virtual visits
- Remote patient monitoring
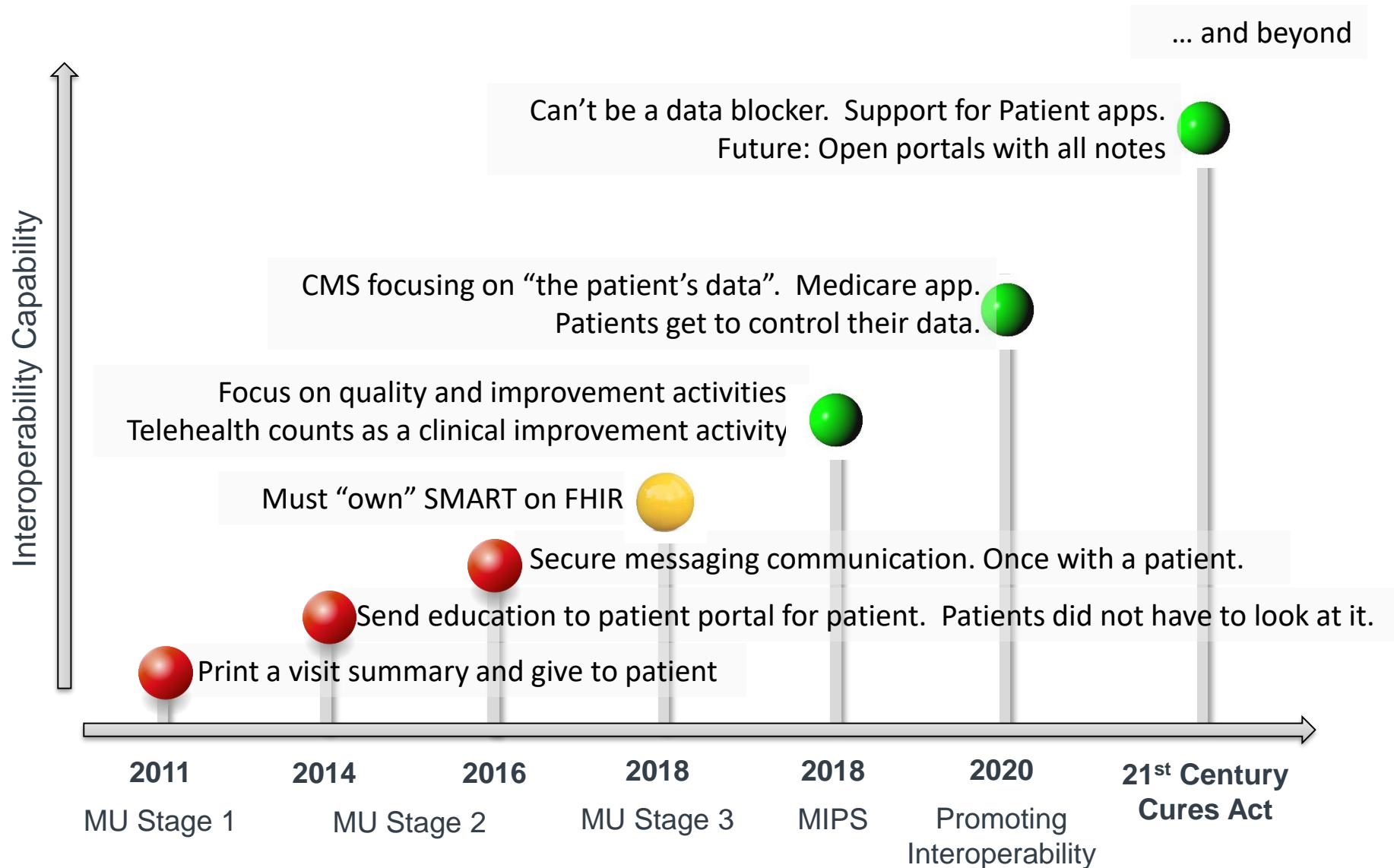- Asynchronous store-and-forward

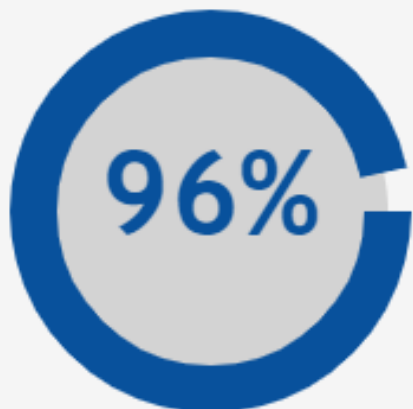**Provider-to-Provider**

- E-consults
- Implantables
- Second opinion consults

Service Line Strategy Advisor research and analysis.

Digital Health can Empower or Engulf Telehealth

... and beyond

Interoperability Capability

Can't be a data blocker. Support for Patient apps.
Future: Open portals with all notes

CMS focusing on "the patient's data". Medicare app.
Patients get to control their data.

Focus on quality and improvement activities
Telehealth counts as a clinical improvement activity

Must "own" SMART on FHIR

Secure messaging communication. Once with a patient.

Send education to patient portal for patient. Patients did not have to look at it.

Print a visit summary and give to patient

2011	2014	2016	2018	2018	2020	21st Century Cures Act
MU Stage 1	MU Stage 2	MU Stage 3	MIPS		Promoting Interoperability	

SMART = Substitutable Medical Applications, Reusable Technologies   FHIR = Fast Healthcare Interoperability Resources

"Certified EHR" Adoption

Non-federal Acute Care Hospitals

Percent of U.S. Hospitals that Adopted *Certified* EHRs: 2017

All Hospitals

96%

Percent of U.S. Physicians that Adopted *Any* and *Certified* EHRs: 2017

Any

86%

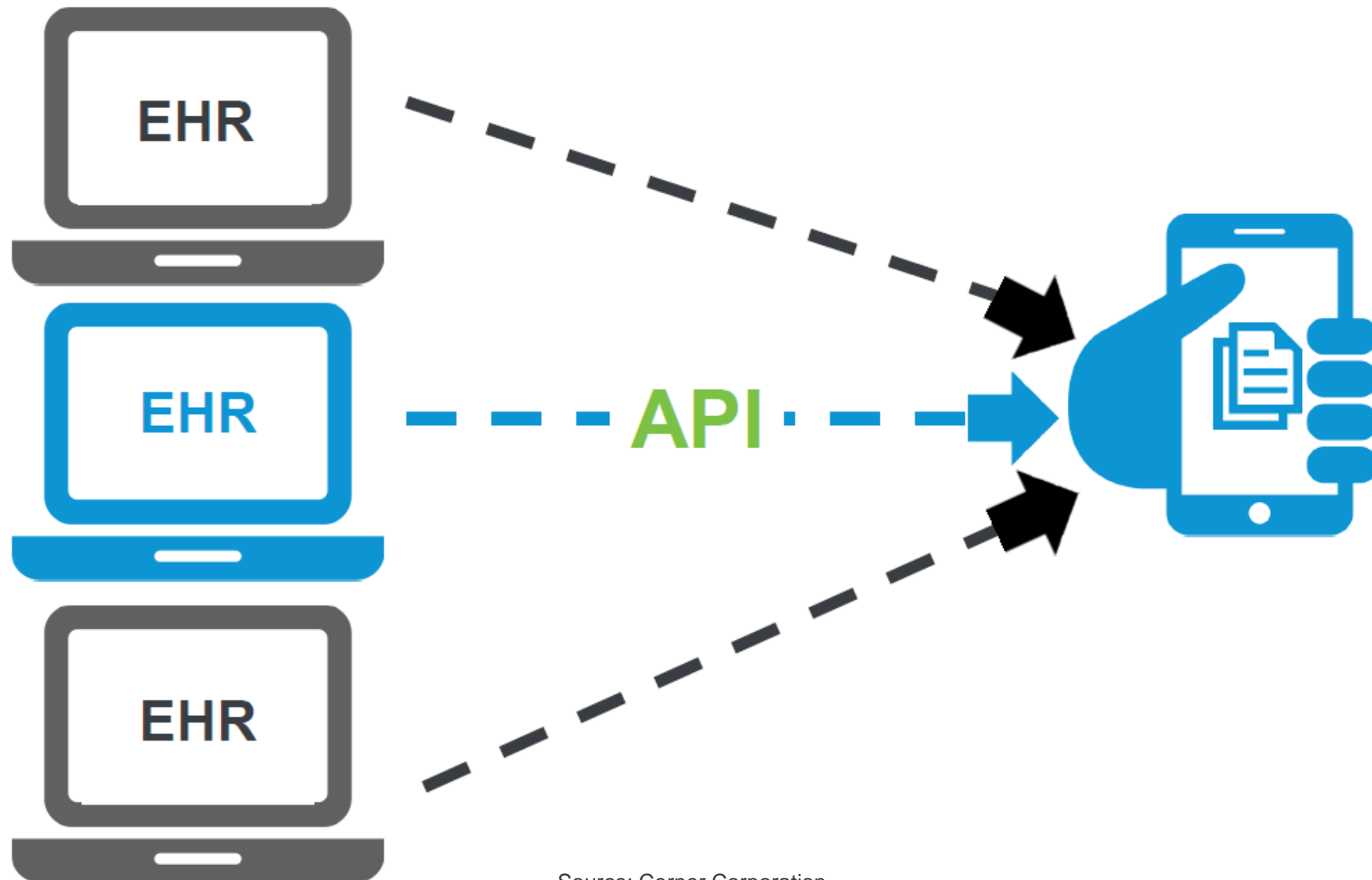**Certified**

80%

Source: https://dashboard.healthit.gov/apps/health-information-technology-data-summaries.php?state=National&cat9=all+data&cat1=ehr+adoption#summary-data
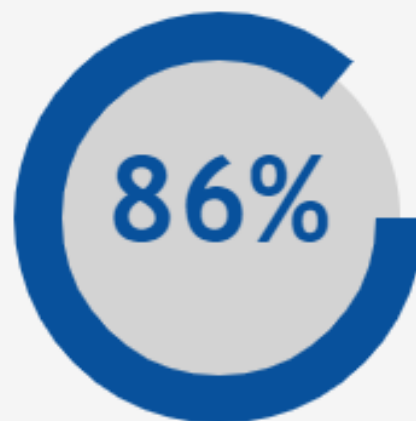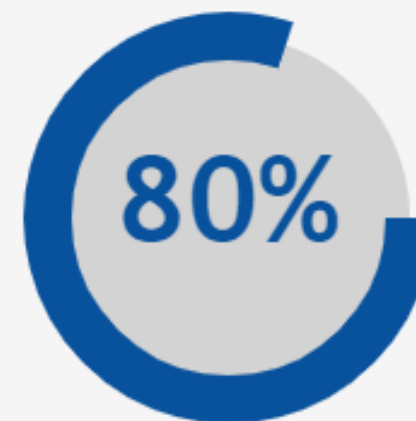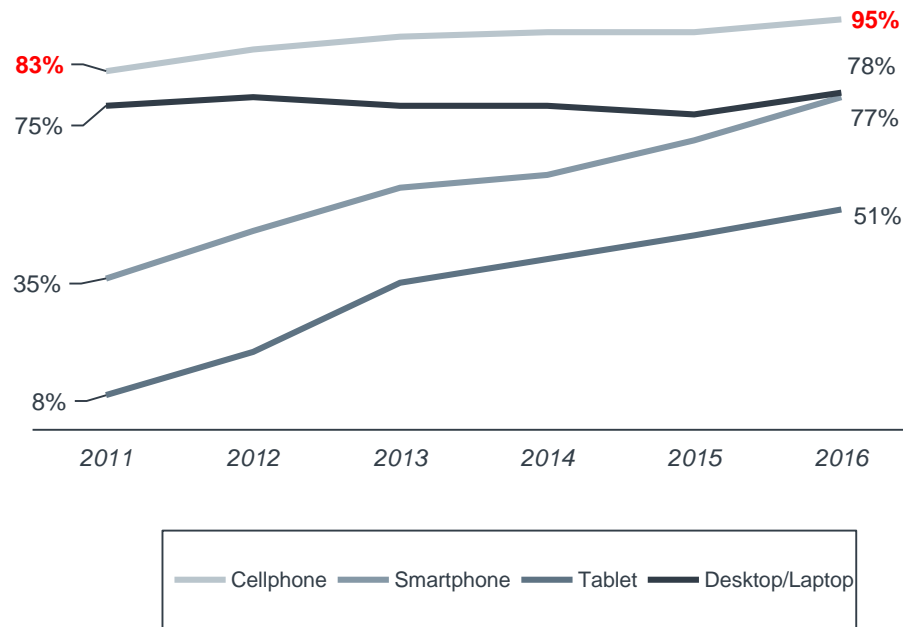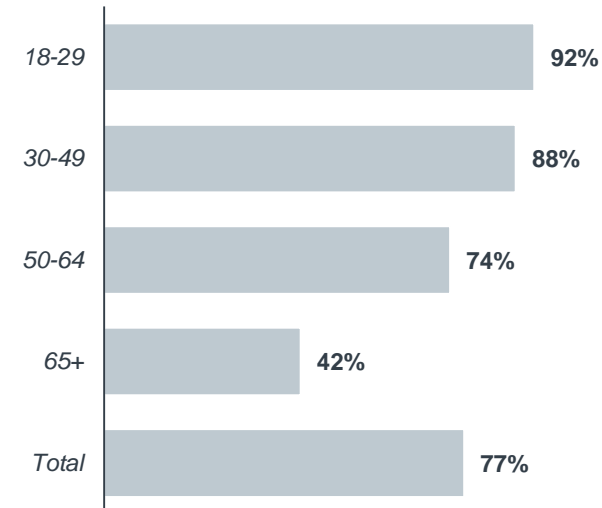
Source: Cerner Corporation

Smartphone Ownership Now Comparable to Laptops

Tablet and Smartphones Outpace Other Technologies

Trends in Consumer Ownership of Digital Technologies Among U.S. Adults[1]

Legend: Cellphone — Smartphone — Tablet — Desktop/Laptop

- 95%
- 83%
- 78%
- 77%
- 75%
- 51%
- 35%
- 8%

Years: 2011, 2012, 2013, 2014, 2015, 2016

Smartphone Ownership of U.S. Adults, by Age[1]

Age	Percent
18-29	92%
30-49	88%
50-64	74%
65+	42%
Total	77%

Smartphone adoption among adults aged 65+ in the U.S. has **quadrupled** in the last 5 years[2]
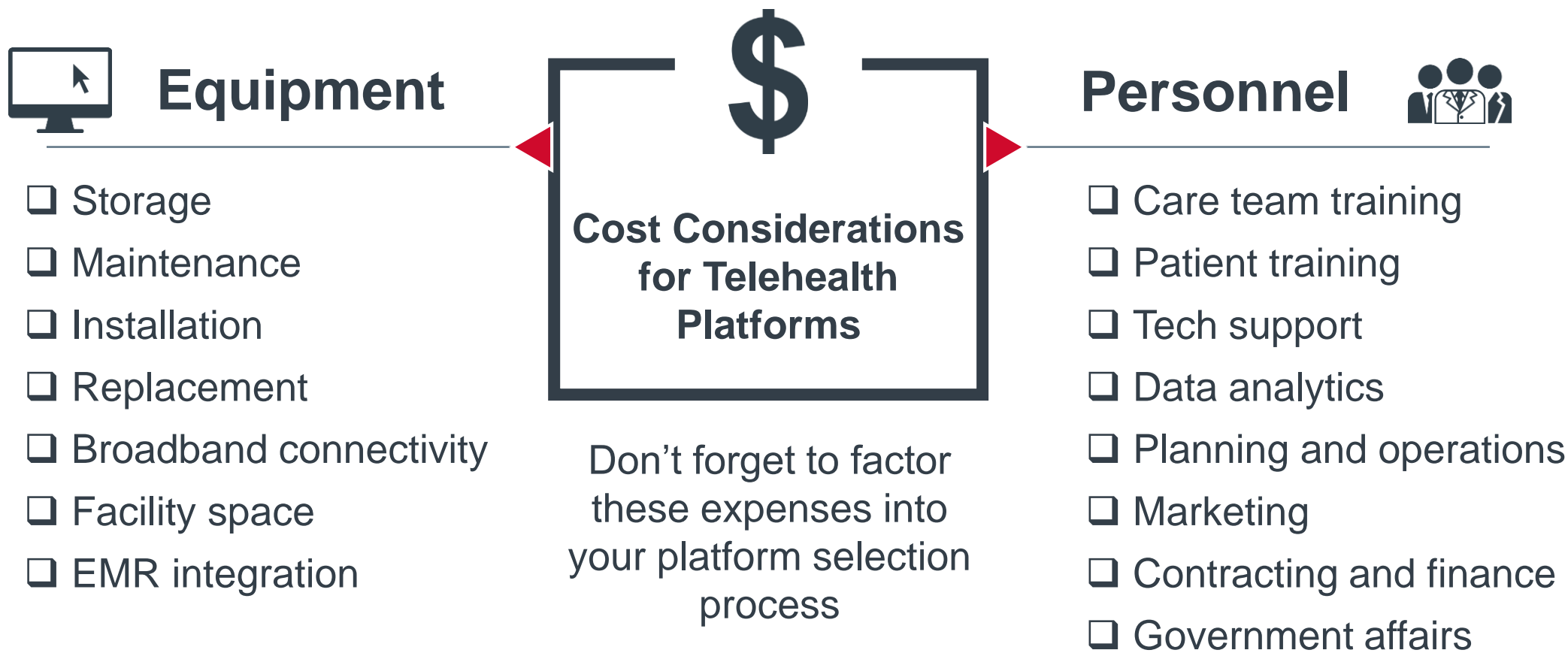
1) Pew Research Center, 2017.
2) Anderson &Perrin, 2017.

Sources: Anderson, M, Perrin, A, "Tech Adoption Climbs Among Older Adults," PEW Research Center, http://www.pewinternet.org/2017/05/17/tech-adoption-climbs-among-older-adults/; Pew Research Center, "Mobile Fact Sheet," http://www.pewinternet.org/fact-sheet/mobile/; Service Line Strategy Advisor research and analysis.

Telehealth Costs Are Not Just About the Hardware

Don't Fail to Factor in the Human Side of Technology

Equipment

- ❑ Storage
- ❑ Maintenance
- ❑ Installation
- ❑ Replacement
- ❑ Broadband connectivity
- ❑ Facility space
- ❑ EMR integration

$

Cost Considerations for Telehealth Platforms

Don't forget to factor these expenses into your platform selection process

Personnel

- ❑ Care team training
- ❑ Patient training
- ❑ Tech support
- ❑ Data analytics
- ❑ Planning and operations
- ❑ Marketing
- ❑ Contracting and finance
- ❑ Government affairs

Service Line Strategy Advisor research and analysis.

Enter the Service Providers

The component segment in the US telehealth market is classified into services, hardware, and software. The <u>services segment dominated</u> the largest market share in 2017, growing at a CAGR of over 31% during the forecast period.

The recent shift towards patient-centric value-based care systems is one of the major factors attributing to the adoption of telehealth services in the US market.

https://globenewswire.com/news-release/2019/01/07/1681424/0/en/United-States-13-Billion-Telehealth-Market-Outlook-and-Forecast-2018-2023.html

- Flattens the technology adoption curve
- Removes the staffing challenge at startup
- Commoditizes the care model
- Creates a provider marketplace
- Bridges the unscheduled patient to the scheduled Healthcare system.

- Have Lab (e.g. Quest) and Pharmacy available (e.g. Walmart)

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Telehealth – Status Update

Eighty percent of mid-size and large U.S. companies offered telemedicine services to their workers last year [2018]…

Patients have been slow to embrace virtual care. Only 8 percent of eligible employees used telemedicine at least once in 2017 …

https://www.apnews.com/7baf70c5ce2c4f0eb928596aa1ac5e6b

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Why is the adoption for Direct-To-Consumer Telehealth so slow?

What Kinds of Visits Would Patients Try?

Patient Barriers to Access and Treatment

Long wait times to next appointment

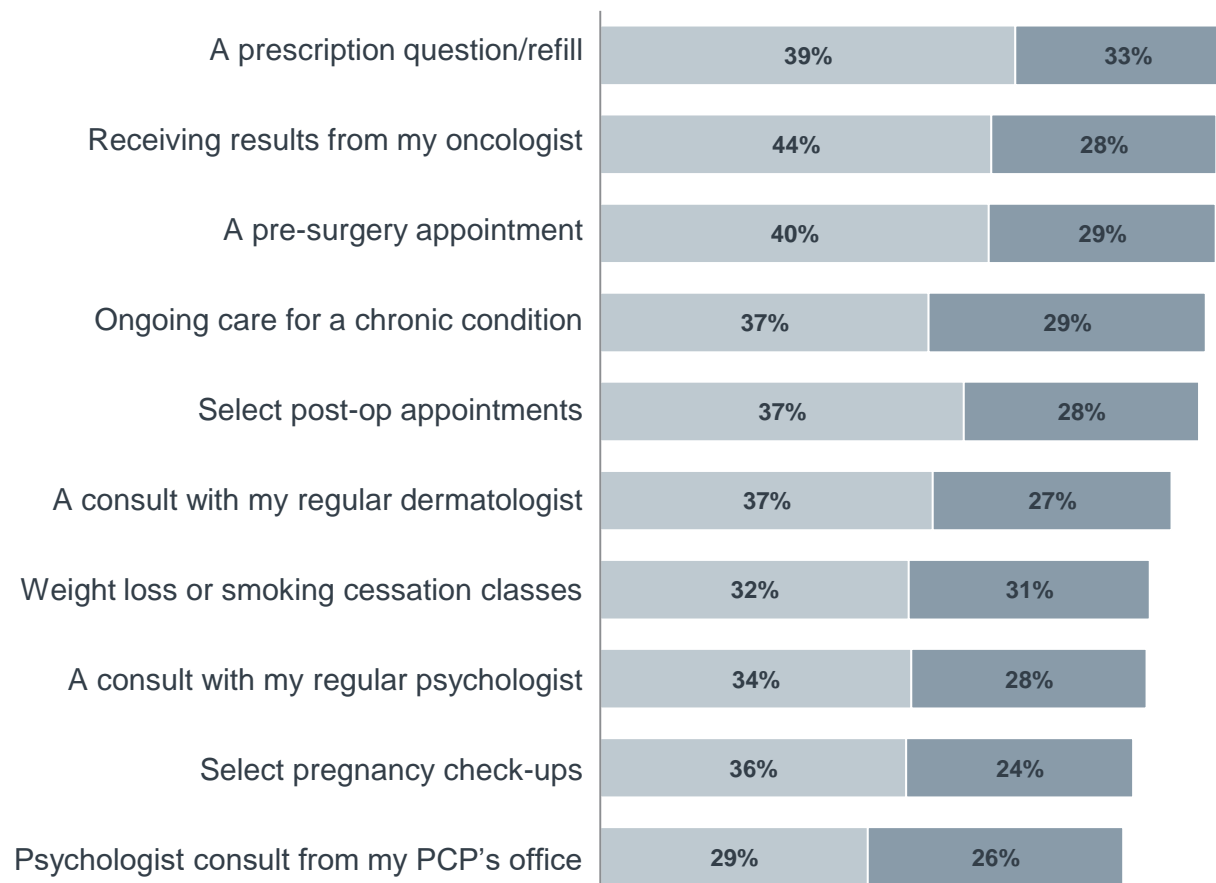Transportation or mobility constraints

Privacy concerns

Multiple follow-up visits

Consumers' Top 10 Virtual Visit Use Cases

Advisory Board Company's "Virtual Visits Consumer Choice Survey," n=4,879

Respondents who **definitely** or **probably** would consider a virtual visit

Respondents who **might** consider a virtual visit

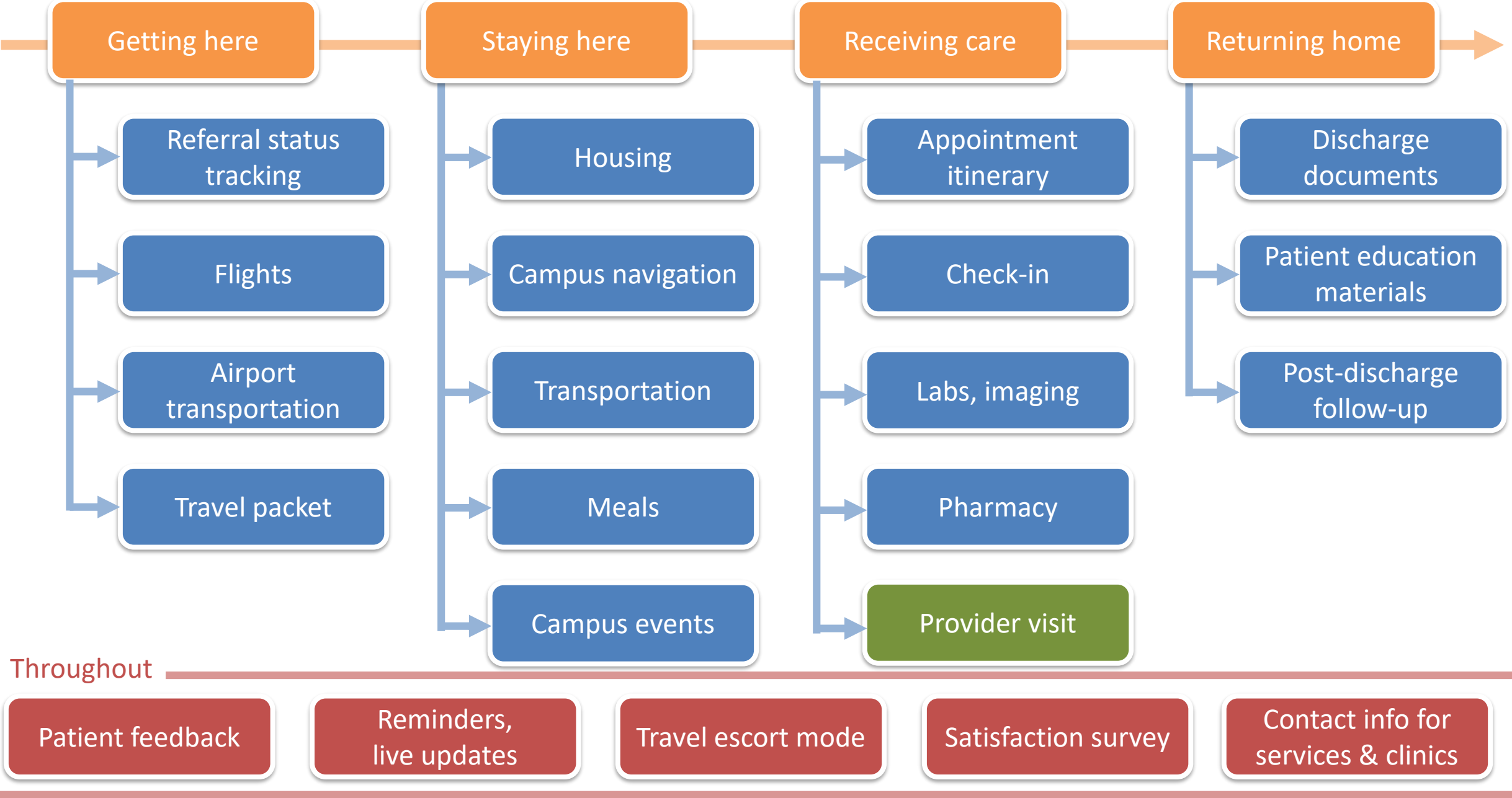| Use Case	Definitely/Probably	Might
A prescription question/refill	39%	33%
Receiving results from my oncologist	44%	28%
A pre-surgery appointment	40%	29%
Ongoing care for a chronic condition	37%	29%
Select post-op appointments	37%	28%
A consult with my regular dermatologist	37%	27%
Weight loss or smoking cessation classes	32%	31%
A consult with my regular psychologist	34%	28%
Select pregnancy check-ups	36%	24%
Psychologist consult from my PCP's office	29%	26%

Sources: Market Innovation Center 2016 Virtual Visits Consumer Choice Survey, Service Line Strategy Advisor research and analysis.

App touchpoints on the patient's journey: Receiving care at ANMC

Getting here → Staying here → Receiving care → Returning home

App touchpoints on the patient's journey: Receiving care at ANMC

Getting here	Staying here	Receiving care	Returning home
Referral status tracking	Housing	Appointment itinerary	Discharge documents
Flights	Campus navigation	Check-in	Patient education materials
Airport transportation	Transportation	Labs, imaging	Post-discharge follow-up
Travel packet	Meals	Pharmacy	
	Campus events	Provider visit	

Throughout

Patient feedback · Reminders, live updates · Travel escort mode · Satisfaction survey · Contact info for services & clinics

Patient's journey: 1st wave

Getting here
- Referral status tracking * 5, 6
- Flights 6
- Airport transportation 2
- Travel packet

Staying here
- Housing 5
- Campus navigation 1
- Transportation 2
- Meals
- Campus events 7

Receiving care
- Appointment itinerary 3
- Check-in
- Labs, imaging
- Pharmacy
- Provider visit

Returning home
- Discharge documents
- Patient education materials
- Post-discharge follow-up

Throughout
- Patient feedback 1
- Reminders, live updates 3
- Travel escort mode 4
- Satisfaction survey
- Contact info for services & clinics

1st wave releases

Campus navigation	**Patient feedback**
Transportation	**Meal cards**

Secure login

Appointment itinerary	**Reminders, live updates**
Travel escort mode	
Housing	**Referral status tracking**
Flights	

Campus events	**Support groups**

1
2
3
4
5
6
7

Enhanced Patient Experience Means ...

REFERRAL TRACKING

- Track where your referrals are at, like tracking packages
- Progress bar that's complete once appointment, travel, and housing are arranged
- Who to call based on the current status
- This should reduce logistics calls from patients to Case Managers

FLIGHT INFO

- Show flight info as part of trip timeline
- "I missed my flight" button
- Flight cancellation/delay tracking
  - Inform them about what to expect with rescheduling
  - Auto-initiate the rescheduling process on our end
  - Notify clinics that patients won't make it

YET MORE

- Chat – for coordinating travel, housing, and many other uses
- Meal cards
- Travel packets
- Discharge summaries
- Patient education materials
- Post-discharge follow-up
- Finding community resources and recommended apps

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Oran's Starting Point: Opioid Epidemic
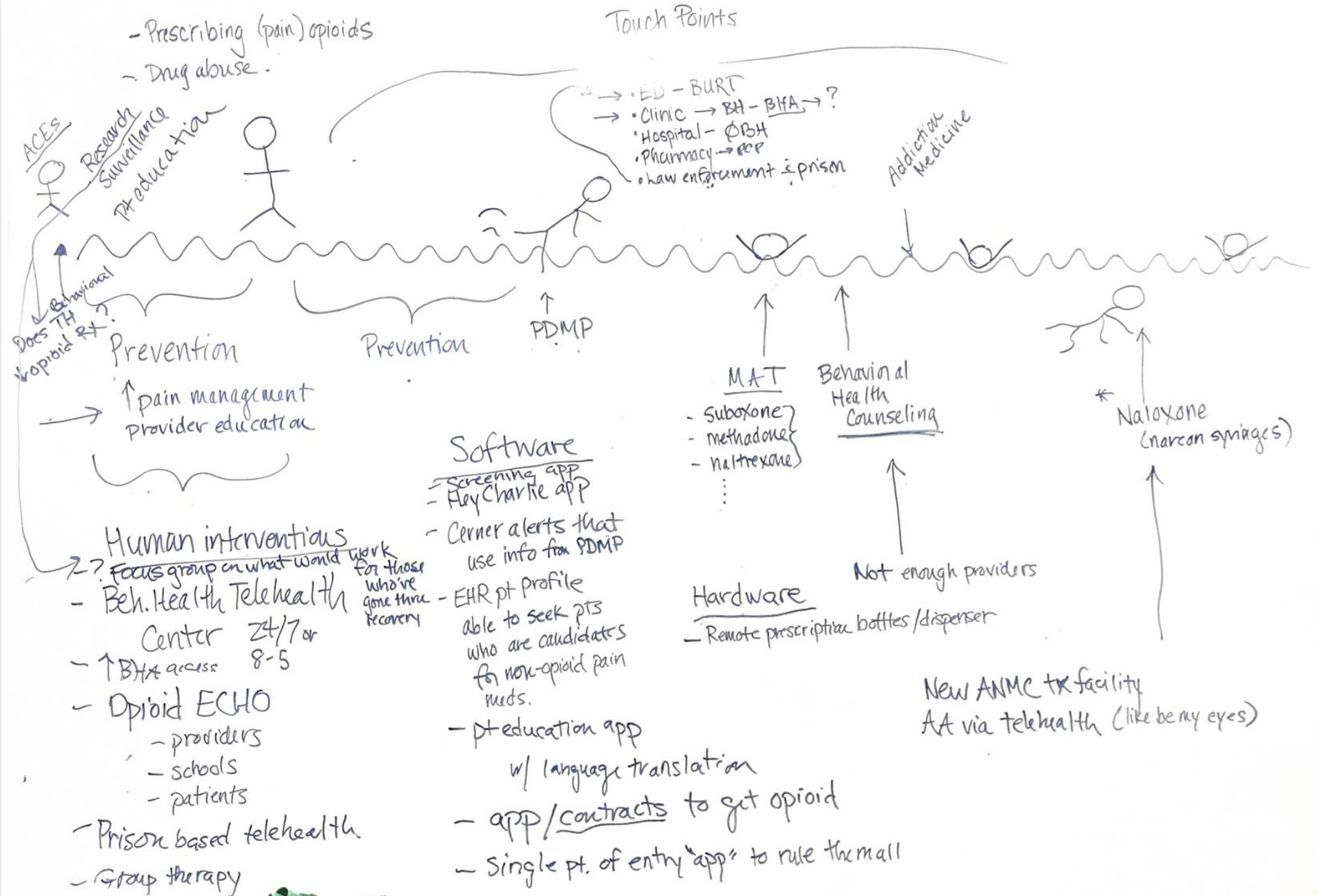
The Golden Rule of Telehealth Investments

The Best Investment Opportunities Benefit Both Patients and Providers

The sweet spot for telehealth sits at the intersection of patients and providers.

Improving Efficiency

- Streamline documentation
- Reduce patient no-shows
- Improve care plan adherence
- Promote top-of-license care

Enhancing Experience

- Increase convenience
- Improve communication with care team members
- Reduce care costs
- Reduce unnecessary travel

Service Line Strategy Advisor research and analysis.

The Golden Rule of Telehealth Investments

The Best Investment Opportunities Benefit Both Patients and Providers

> ▶ **The sweet spot for telehealth sits at the intersection of patients and providers.**

Traditionally we didn't ask what the patient wanted. **We did satisfaction surveys to ask the patient what they thought after the fact.**

The questions we should be asking are **"Where are the pain points? What can we do to make your health care experience great?"**

QUESTIONS?

Putting the Patient in the Center

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http://www.charleswbaileyjr.name/digital-oil-painting-of-an-alaskan-river/