

The Consumerization of Healthcare

A proprietary research study conducted by





What is the consumerization of healthcare?

Consumers taking a greater hand in managing and paying for their own health. PwC

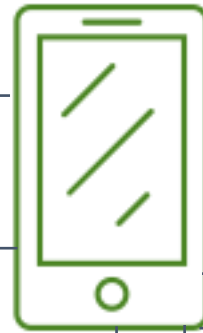
Patients treating their health care like a traditional consumer shopping experience. American Marketing Association

Recent news headlines

Doctors put patients in charge with Apple's Health Records feature

2017 was the year consumer DNA testing blew up

Uber, Lyft Launch Efforts to Eliminate Transportation Barriers to Healthcare



How Fitbit is trying to transform healthcare, and itself

Amazon, Berkshire Hathaway and JPMorgan Team Up to Try to Disrupt Health Care

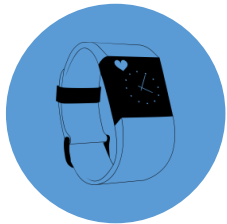
Millennial Doctors, Patients Shaping Healthcare World

The ECG in the new Apple Watch is a potential healthcare headache



Research objectives

Explore the emerging state of healthcare consumerization:



Technologies

Readiness for consumer health technologies

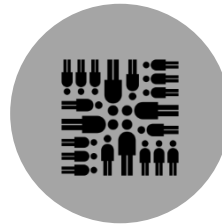
- Wearables
- Apps
- Consumer DNA tests
- Ride sharing
- Remote monitoring
- Telemedicine



Convenience Initiatives

Readiness for consumer-centric convenience initiatives

- Patient portals
- Self-scheduling
- New sites of care
- Price transparency



Demographics

Demographic differences influencing healthcare consumerism



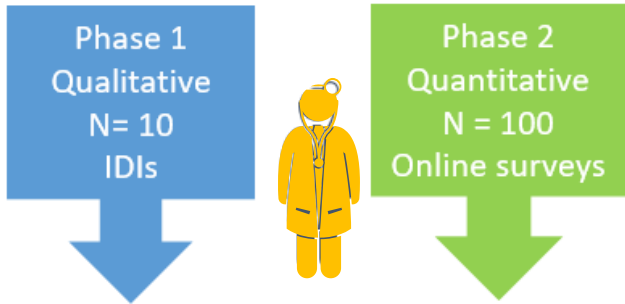
Unmet Needs

Unmet needs with consumer technologies and convenience initiatives








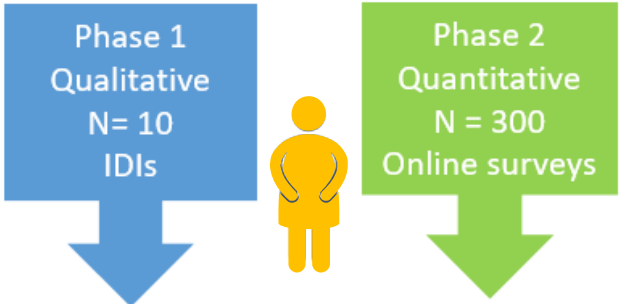
Thought Leaders

Perceived thought leaders on consumer technologies and convenience initiatives






Primary Care Physicians

-  Primary care physicians (Internal Medicine, PED, GP/FP, OB/Gyn)
-  Mix Health System, Independent
-  Mix Millennial (age 22-37)
Gen X (age 38-54)
Boomer (age 55-72)
-  Mix by geography
-  Mix by gender



Consumers

-  Mix of type of insurance
-  Mix by race/ethnicity
-  Mix Millennial (age 22-37)
Gen X (age 38-54)
Boomer (age 55-72)
-  Mix by geography
-  Mix by gender



Detailed Findings

Primary Care
Physicians
(PCPs)





We asked PCPs about their readiness to use consumer technologies to care for their patients...

Primary Care Physicians

Readiness to Provide Care Using Consumer Technologies

■ Not at all ■ Slightly ■ Moderately ■ Mostly ■ Completely

Less ready ←  → More ready

- Talk with my patients about **health apps** they use
- Talk with my patients about **Fitbit or Apple Watch** health data
- Have my office help patients who need **Lyft or Uber** for medical appointments
- Talk with my patients about **consumer DNA tests** (e.g., 23andMe, Ancestry.com) for medical screening
- Manage my patients using **remote medical monitoring devices** that send me clinical data
- Provide **telemedicine**



Most PCPs do feel ready to discuss **health apps or wearables** with their patients.

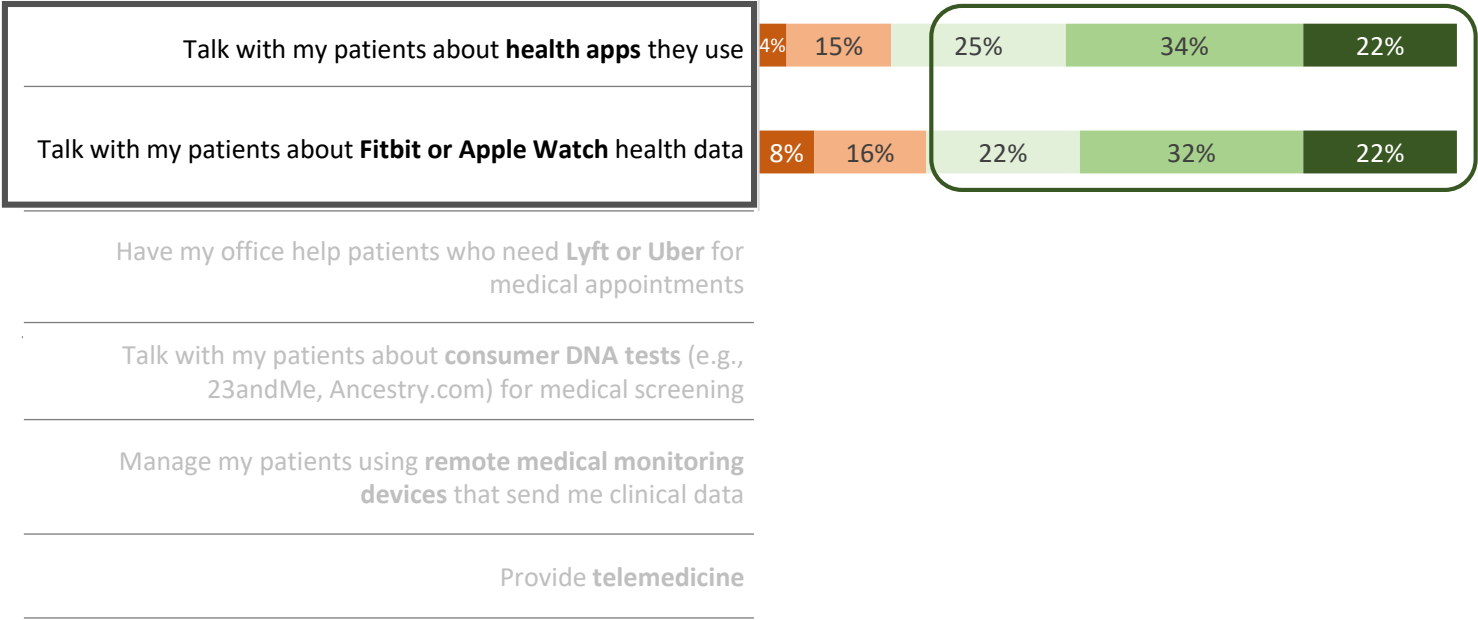


Primary Care Physicians

Readiness to Provide Care Using Consumer Technologies

Not at all Slightly Moderately Mostly Completely

Less ready More ready





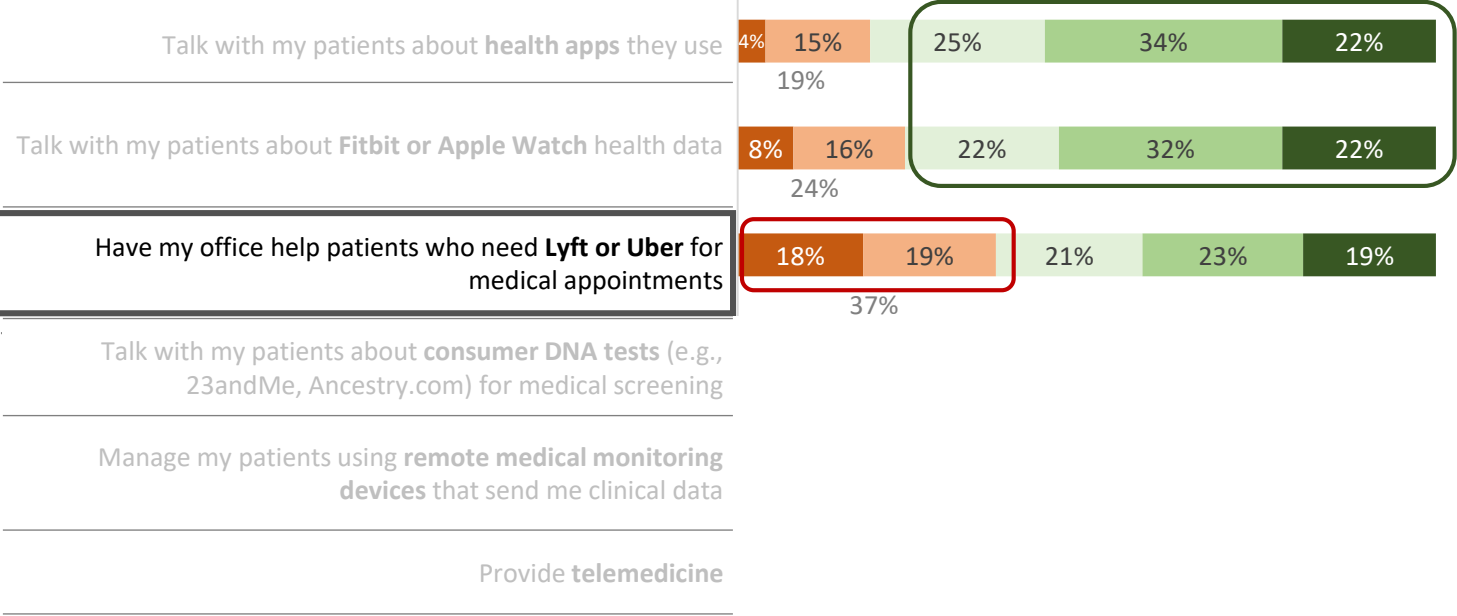
They feel less ready to help patients who need **Lyft or Uber** for medical appointments.

Primary Care Physicians

Readiness to Provide Care Using Consumer Technologies

Not at all Slightly Moderately Mostly Completely

Less ready More ready





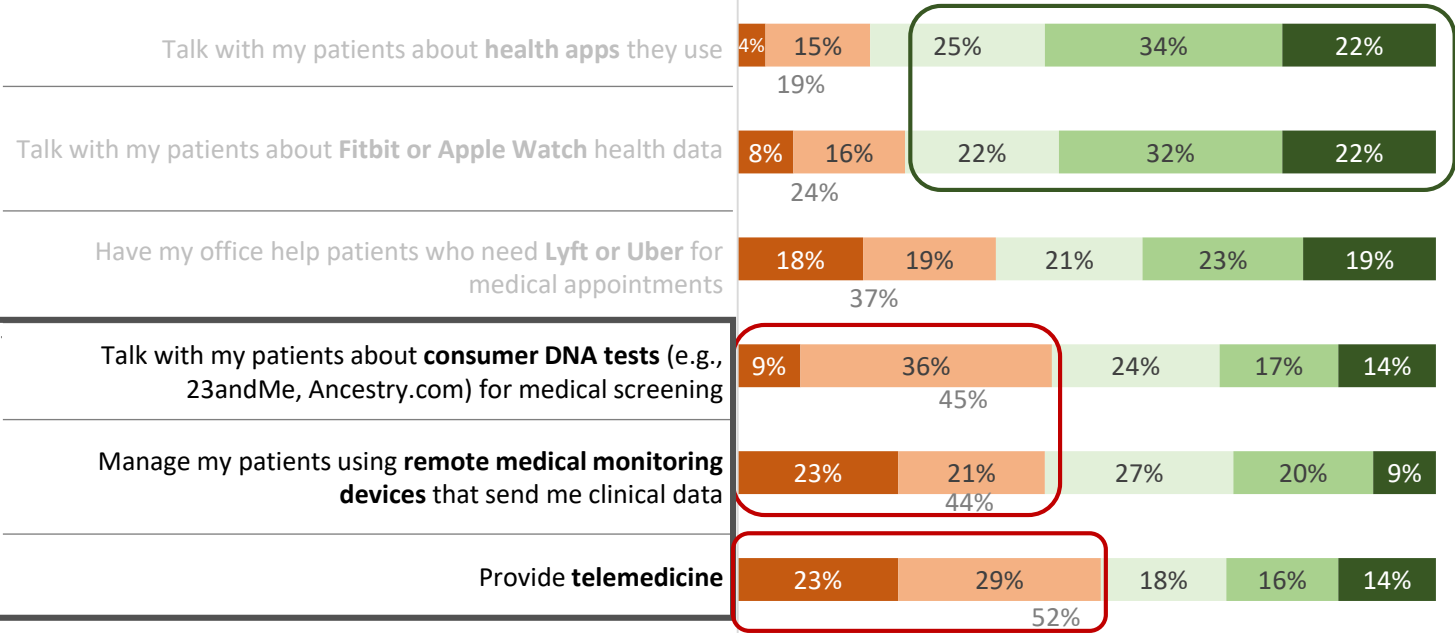
And roughly half are not yet ready for **consumer DNA testing**, **remote monitoring devices** or **telemedicine**.

Primary Care Physicians

Readiness to Provide Care Using Consumer Technologies

Not at all Slightly Moderately Mostly Completely

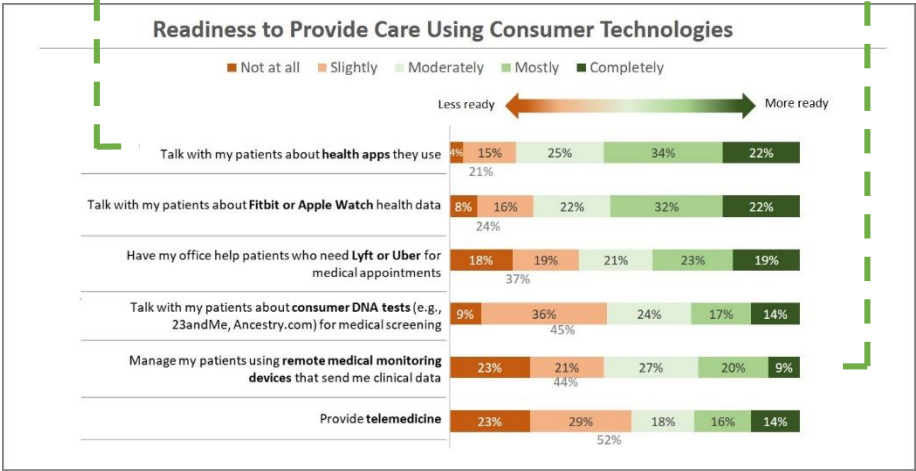
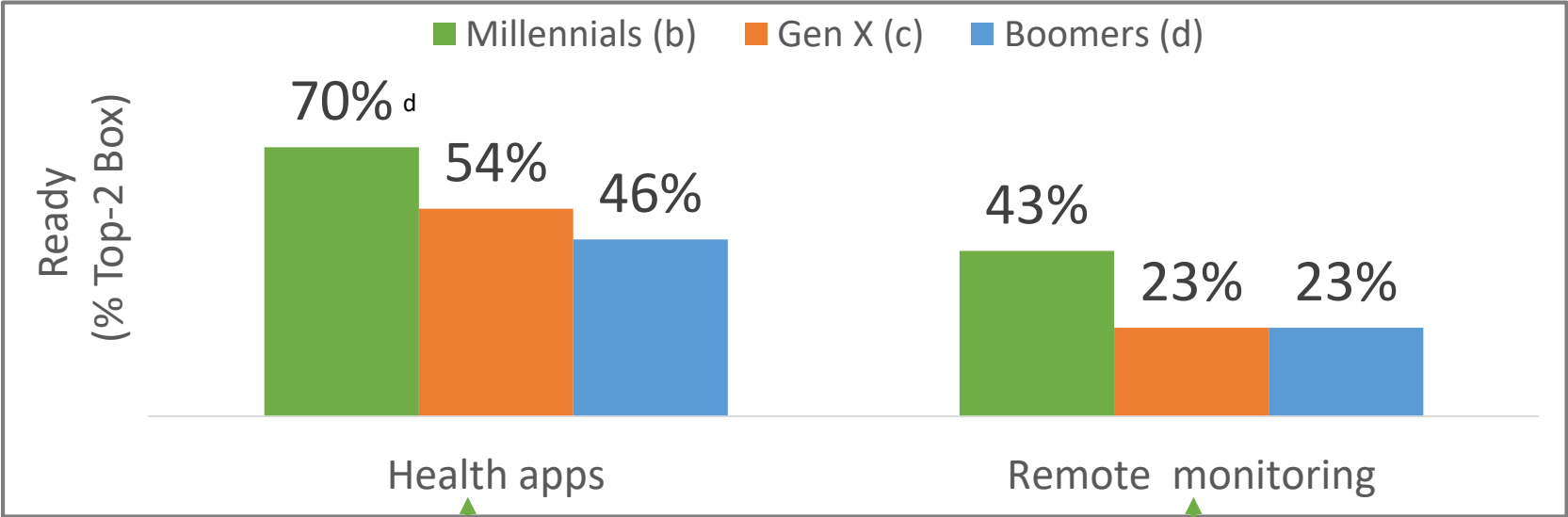
Less ready More ready



Millennial PCPs are much more ready for health apps and remote monitoring than their counterparts are.



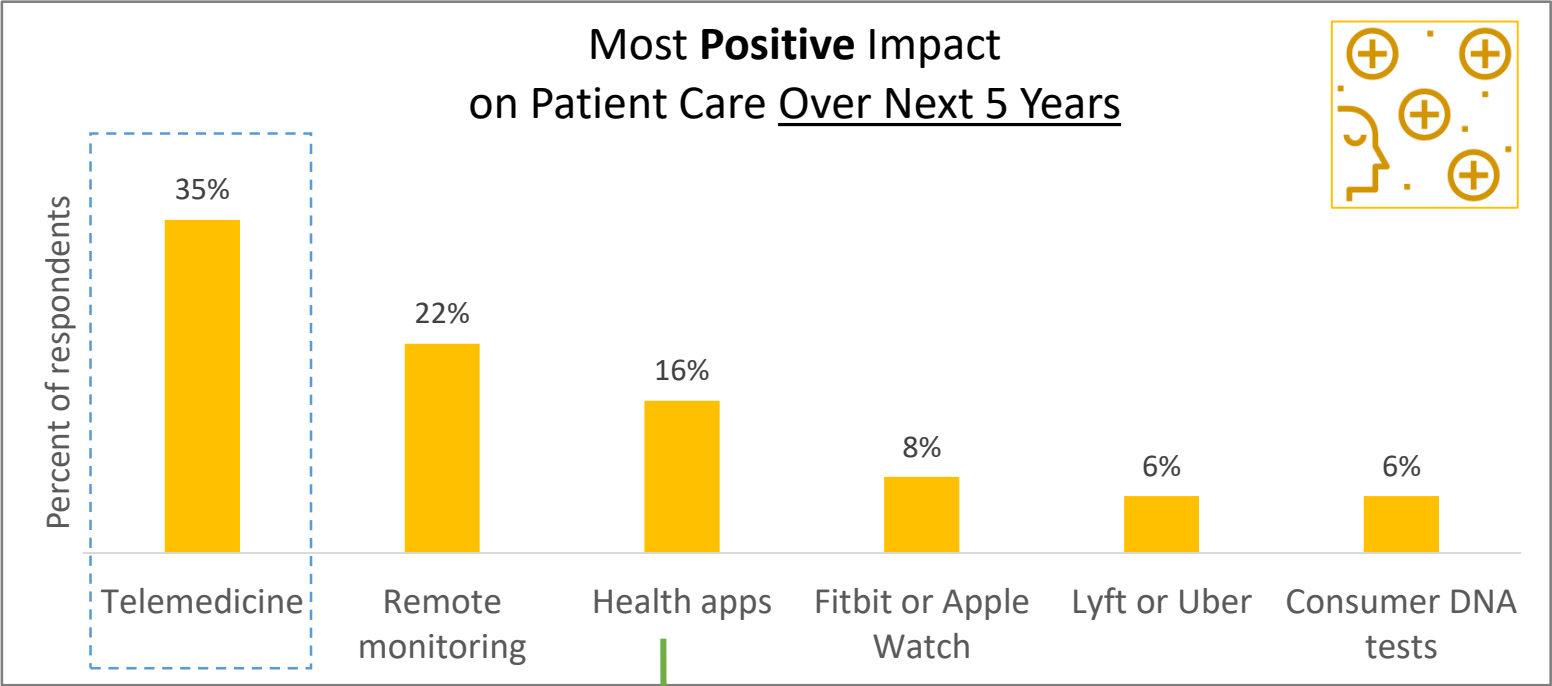
Primary Care Physicians





Interestingly, PCPs are *most excited* about the future of **telemedicine** -- despite being *least* ready to provide it now.

Primary Care Physicians



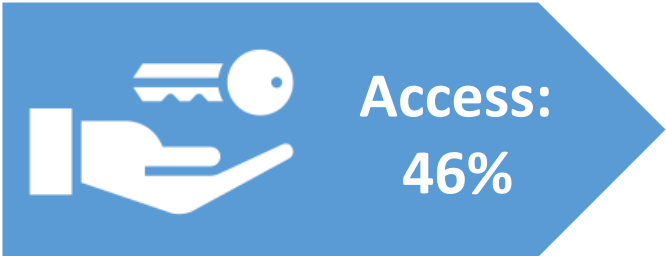
Millennial PCPs are also *more optimistic* about the impact of **health apps** (27%) than Gen Xers (14%) or Boomers (9%) are.



PCPs optimistic about **telemedicine** are excited that it offers more *access, convenience and better health*.

Primary Care Physicians

Top Reasons Telemedicine Will Have the Most Positive Impact Over the Next 5 Years



- There are patients who are **away at college** or for whom **transportation** is an issue-especially **new moms** in the first 6 weeks after delivery.
- Able to **reach** more patients (especially rural).
- Pts will be more likely to **keep appointments** and make more appointments/**check in more often...**



- Many issues don't require a **face to face visit**.
- Patients seem to **want** the convenience of telemedicine.
- If it is reimbursed, it can be more convenient **for both patients and providers**.
- Ease and **convenience** for patients.



- Prevent **emergency department visits**, appropriately utilize EMS resources, and prevent acute **decompensation at home**.
- Replace **emergency room visits**.
- Useful to be able to **see kids in home environment**.

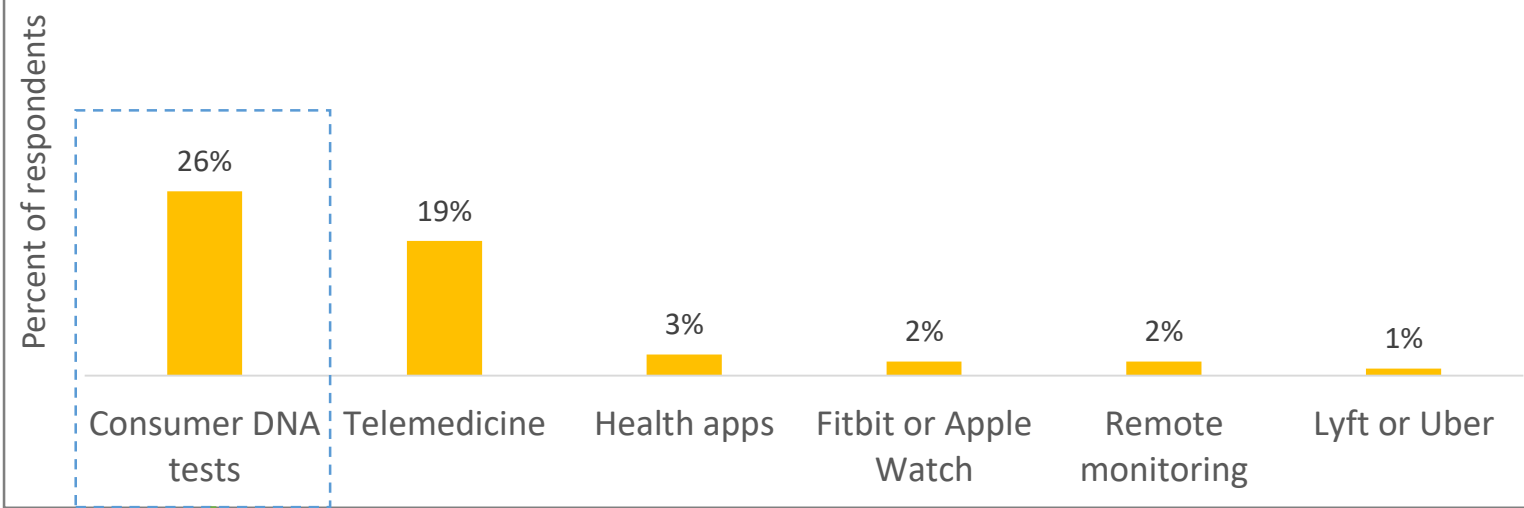


Conversely, PCPs are *most concerned* about **consumer DNA tests** impacting their practice over the next 5 years.

Primary Care Physicians



Most Negative Impact
on Patient Care Over Next 5 Years



Millennial (30%) and Gen X (34%) PCPs tend to be more concerned than Boomers (14%) are about **consumer DNA tests** for medical screening in the next 5 years.



PCPs concerned about **consumer DNA tests** are worried about having *proper guidance and good data quality*.

Primary Care Physicians

Top Reasons Consumer DNA Tests Will Have the Most Negative Impact Over the Next 5 Years



Lack of
guidance:
39%

- 🔊 We **don't know what to do** with the information yet
- 🔊 Too nebulous and **difficult to counsel**
- 🔊 The commercial tests **don't supply genetic counseling** and are not a substitute for non commercial testing
- 🔊 Patients don't know what to do with for. Doctors **won't know enough what to do** with the results. Leads to unnecessary visits, **wasted resources**.



Inaccurate
data:
31%

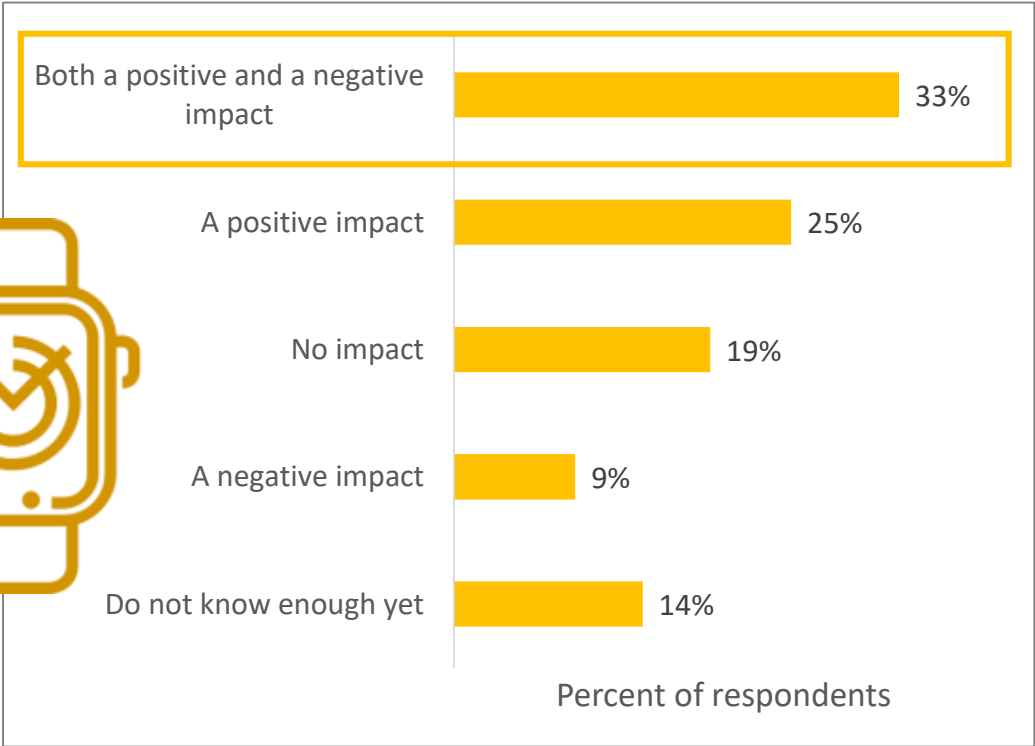
- 🔊 Not **accurate** always.
- 🔊 Questionable **validity**.
- 🔊 **False sense of security**. For example, a woman will be told she is BRCA negative yet **not enough of the mutations have been tested** and she could still be positive for less common mutations. She thinks she is clear and her children are not at risk.



As a new consumer health device, the **Apple Watch with an ECG monitor** garners initial **mixed reactions** from PCPs.

Primary Care Physicians

Impact of New Apple Watch ECG Monitor on Your Primary Care Practice



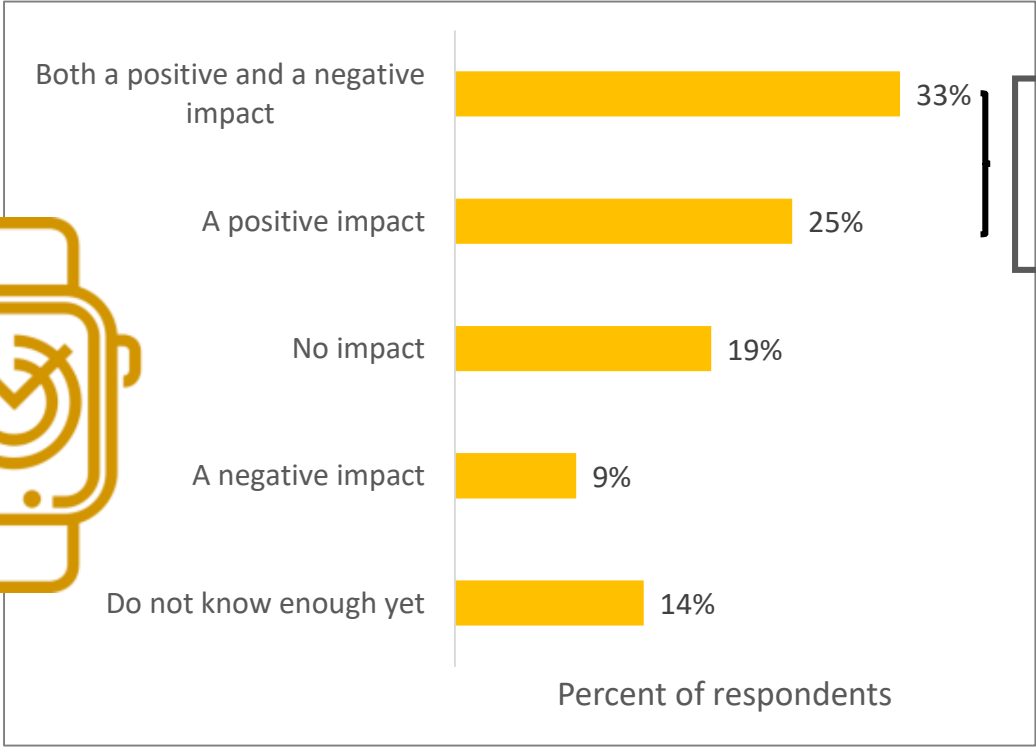
A third of PCPs expect the new consumer device will have **both a positive and negative impact** on their practice.



Surprisingly, millennial and Gen X PCPs have **more mixed reactions** to the **Apple Watch ECG monitor** than Boomers.

Primary Care Physicians

Impact of New Apple Watch ECG Monitor on Your Primary Care Practice



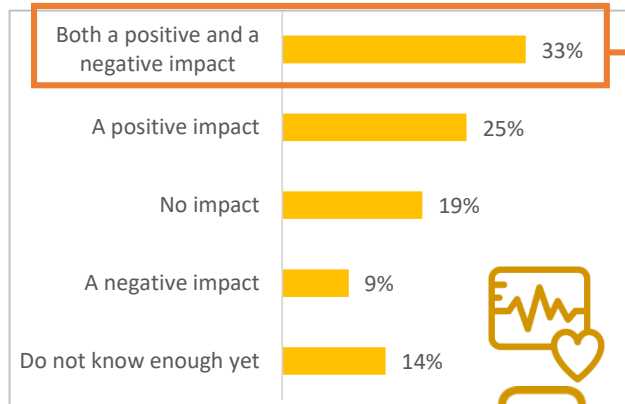
	Millennial (b)	Gen X (c)	Boomer (d)
Positive and negative	40%	37%	23%
Positive	17%	17%	40% ^{bc}
No impact	17%	17%	23%
Negative	13%	6%	9%
Not know enough yet	13%	23%	6%



PCPs' mixed reactions center on **data accuracy** concerns versus hopes for **better patient health**.

Primary Care Physicians

Impact of New Apple Watch ECG Monitor on Your Primary Care Practice



Why Both Positive and Negative



Inaccurate 64%

- There will be **false positives and false negatives** with this watch.
- Do expect glitches** to occur.
- Will likely have many **false positives** causing patient **stress** and added **office visits unnecessarily**.

Better health 46%

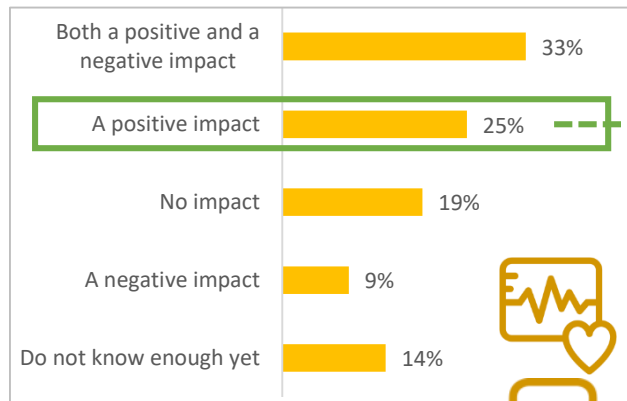
- May help **pick up a few cases of abnormalities that are real** but probably more false concerns.
- It **may identify problems earlier**, but may also lead to false positives.



PCPs' positive reactions are mainly based in a belief it will lead to **better patient health**.

Primary Care Physicians

Impact of New Apple Watch ECG Monitor on Your Primary Care Practice



Why Positive



Better health 48%

- 🔊 If the EKG can **document** arrhythmias **I can see**, that will help **diagnose** patients.
- 🔊 I think it can identify some problems **that I would not otherwise detect**.
- 🔊 Many more rhythm disturbances will be **discovered**.

Accurate data 12%

- 🔊 Better **long term** data.
- 🔊 Better, **more accurate** data.
- 🔊 Any data that is **accurate** is helpful.



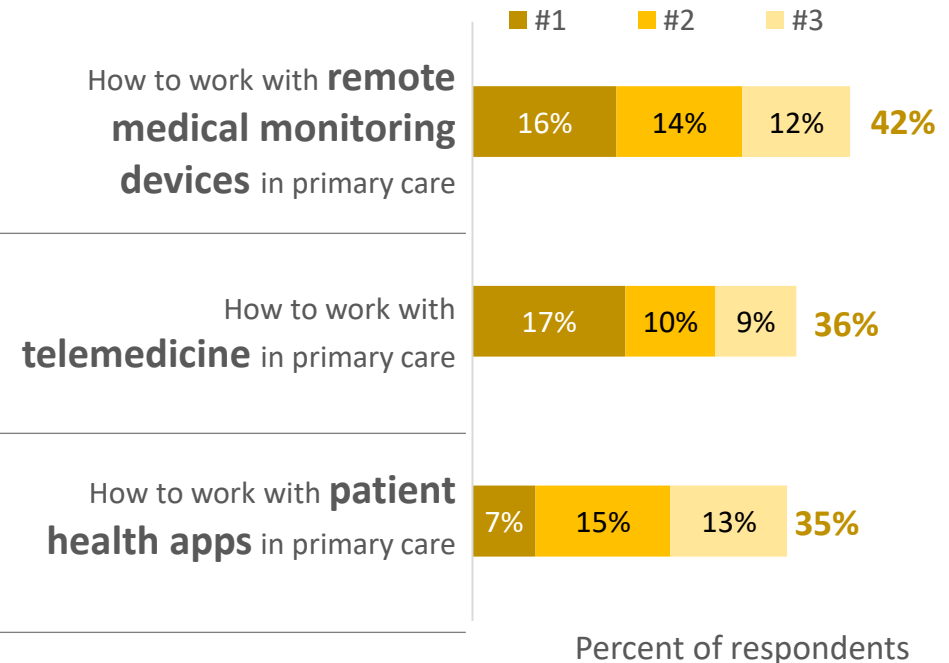
PCPs most want guidance on using **remote medical devices**, **telemedicine** and **patient health apps** in primary care.

Primary Care Physicians

Need for Guidance	%
Remote medical monitoring devices	42%
Telemedicine	36%
Patient health apps	35%
Consumer DNA tests	29%
Patient cost estimator for Rx drugs	26%
Fitbit or Apple Watch health data	23%
Patient cost estimate for medical procedures	23%
Patient registration tablets	21%
Patient self-scheduling apps	20%
Lyft or Uber for medical appointments	12%
Patient registration kiosks	12%



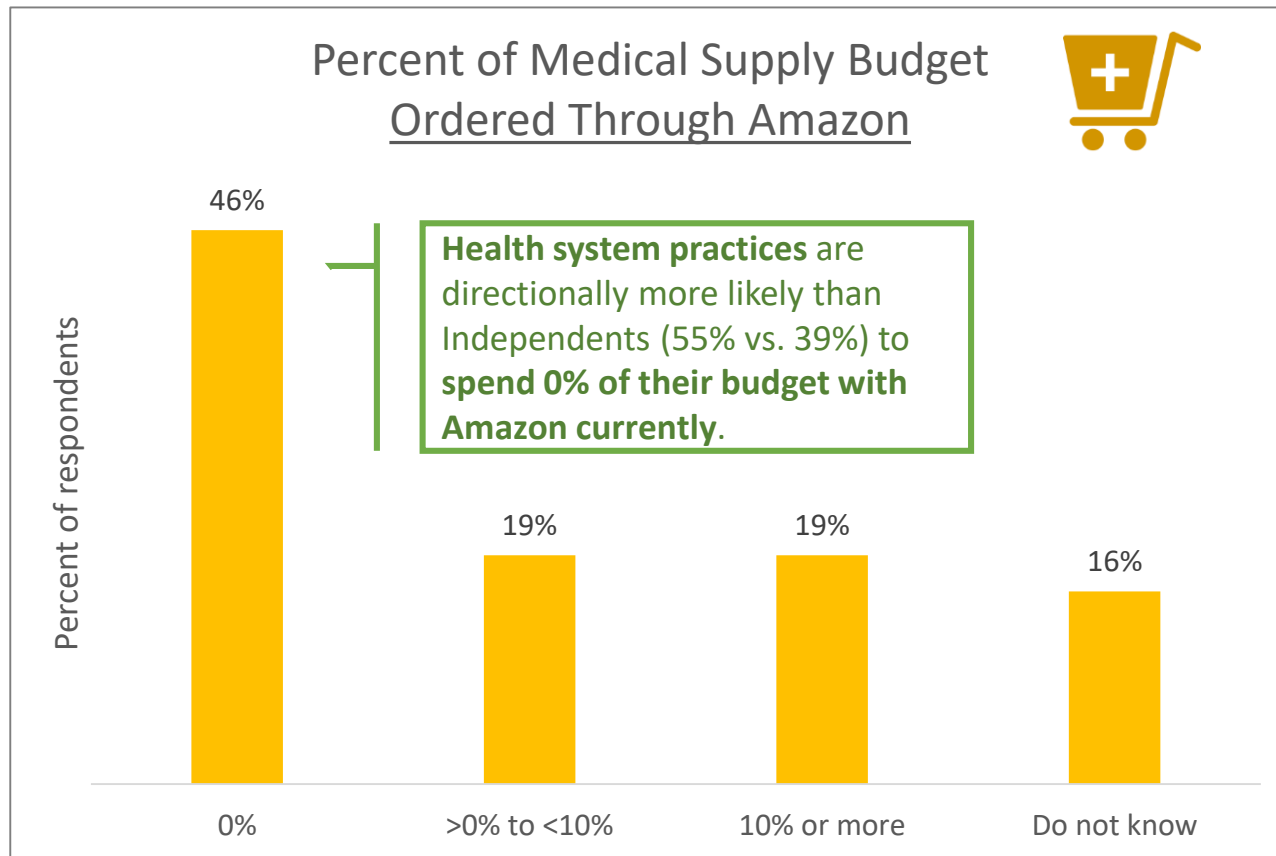
PCPs' Top Needs for Better Guidance





About half of PCP practices **currently order 0%** of their medical supply budget **from Amazon**.

Primary Care Physicians



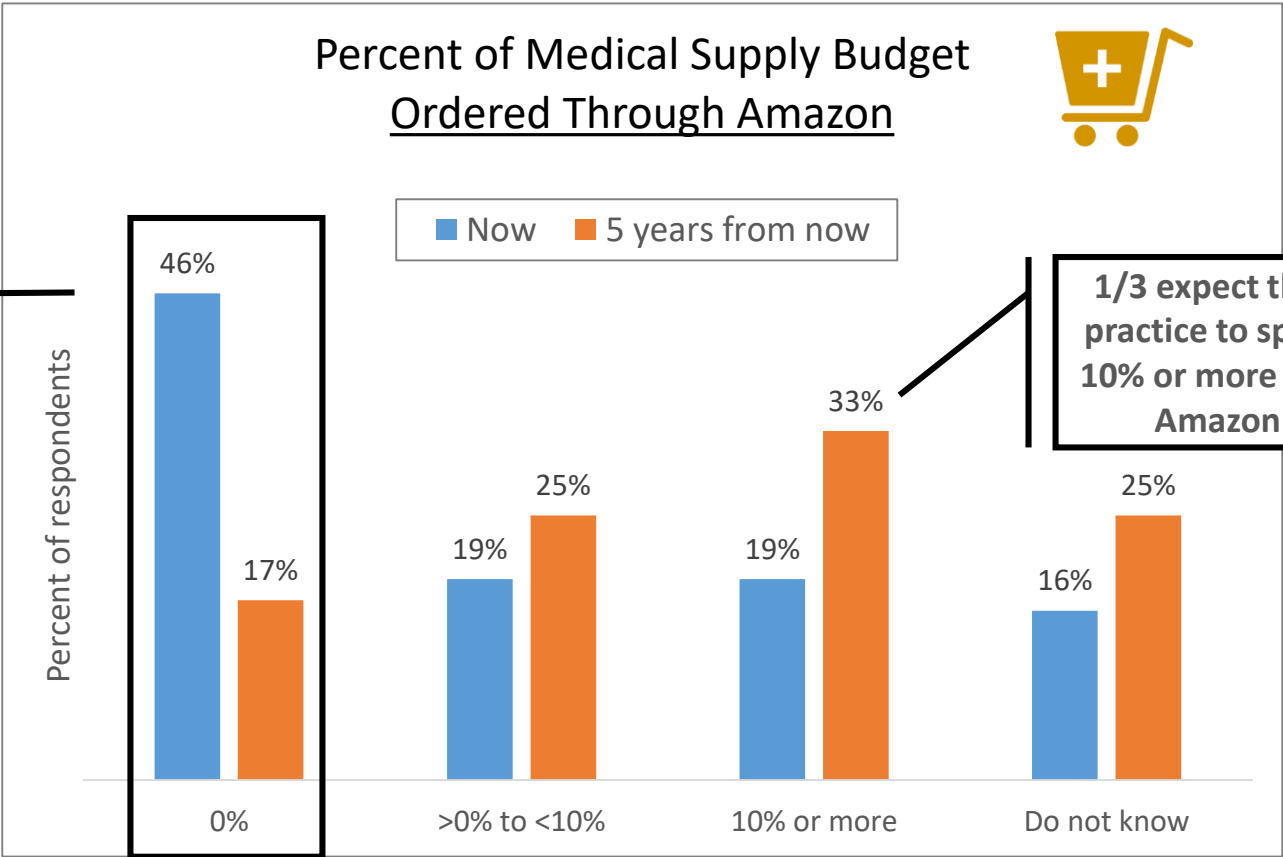
Q406. Now, please think about medical supplies ordered for your primary care practice (through your own office or your health system). What percent of your practice's medical supply budget, if any, is currently ordered through Amazon instead of medical supply distributors (e.g., Cardinal, Henry Schein, McKesson, Medline, Owens & Minor, etc.)? Please exclude office supplies and prescription medicines/vaccines; this question is just about medical supplies. Your best estimate is fine. Response options are ranges, not an open-end. Base = 100 PCPs.

5 years from now, most PCPs expect their practices will be spending more of their medical supply budget with Amazon.



Primary Care Physicians

This change to using Amazon cuts across both Health System and Independent primary care practices.



Q406. Now, please think about medical supplies ordered for your primary care practice (through your own office or your health system). What percent of your practice's medical supply budget, if any, is currently ordered through Amazon instead of medical supply distributors (e.g., Cardinal, Henry Schein, McKesson, Medline, Owens & Minor, etc.)? Please exclude office supplies and prescription medicines/vaccines; this question is just about medical supplies. Your best estimate is fine. (Response options are ranges, not an open-end.) Base = 100 PCPs.

Q407. Five years from now, what percent of your practice's medical supply budget, if any, do you think will be ordered through Amazon instead of medical supply distributors (e.g., Cardinal, Henry Schein, McKesson, Medline, Owens & Minor, etc.)? Again, please exclude office supplies and prescription medicines/vaccines; this question is just about medical supplies. Your earlier answer is shown below in column A, reflecting the current percent ordered through Amazon. Your best estimate is fine. © Zeldis Research 2018 (Response options are ranges, not an open-end.) Base = 100 PCPs.



Detailed Findings

Consumers





Consumers

Interest in Using Consumer Health Technologies

■ Not at all ■ Slightly ■ Moderately ■ Very ■ Have already done this

Less interest

More interest

If recommended, using a **remote medical monitoring device** that would send my clinical data to my physician

Telemedicine (i.e., a video chat with a nurse, physician, or therapist)

Using a **consumer DNA test** (e.g., 23andMe, Ancestry.com) for medical screening

Talking with my physician about **health apps** I use

Talking with my physician about health data from a **Fitbit or Apple Watch**

Using **Lyft or Uber** for medical appointments



Most consumers (like PCPs) are interested in a **remote monitoring device** and in **telemedicine** for their health.



Consumers

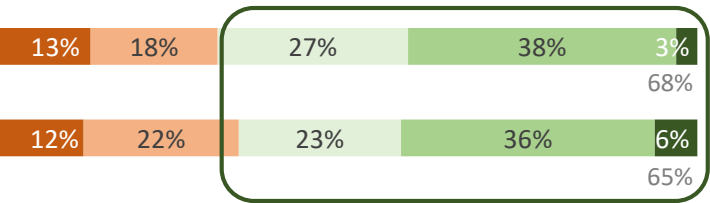
Interest in Using Consumer Health Technologies

Not at all Slightly Moderately Very Have already done this

Less interest ← → More interest

If recommended, using a **remote medical monitoring device** that would send my clinical data to my physician

Telemedicine (i.e., a video chat with a nurse, physician, or therapist)



Using a **consumer DNA test** (e.g., 23andMe, Ancestry.com) for medical screening

Talking with my physician about **health apps** I use

Talking with my physician about health data from a **Fitbit or Apple Watch**

Using **Lyft or Uber** for medical appointments



However, interest is split in **consumer DNA testing**, or talking with a physician about **health apps**, **Fitbit** or **Apple Watch**.

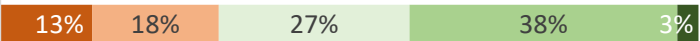
Consumers

Interest in Using Consumer Health Technologies

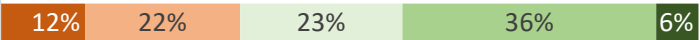
Not at all Slightly Moderately Very Have already done this

Less interest ← → More interest

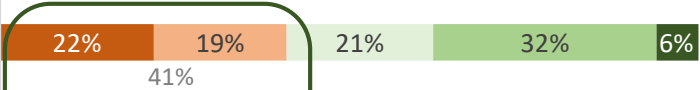
If recommended, using a **remote medical monitoring device** that would send my clinical data to my physician



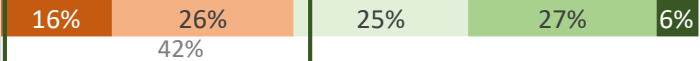
Telemedicine (i.e., a video chat with a nurse, physician, or therapist)



Using a **consumer DNA test** (e.g., 23andMe, Ancestry.com) for medical screening



Talking with my physician about **health apps** I use



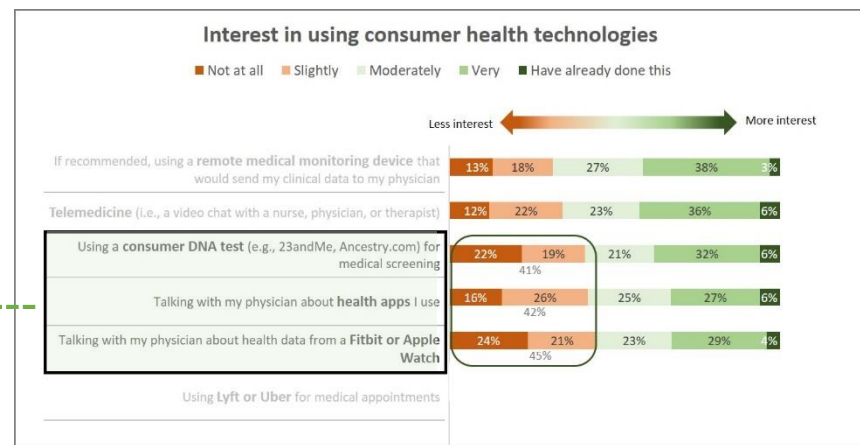
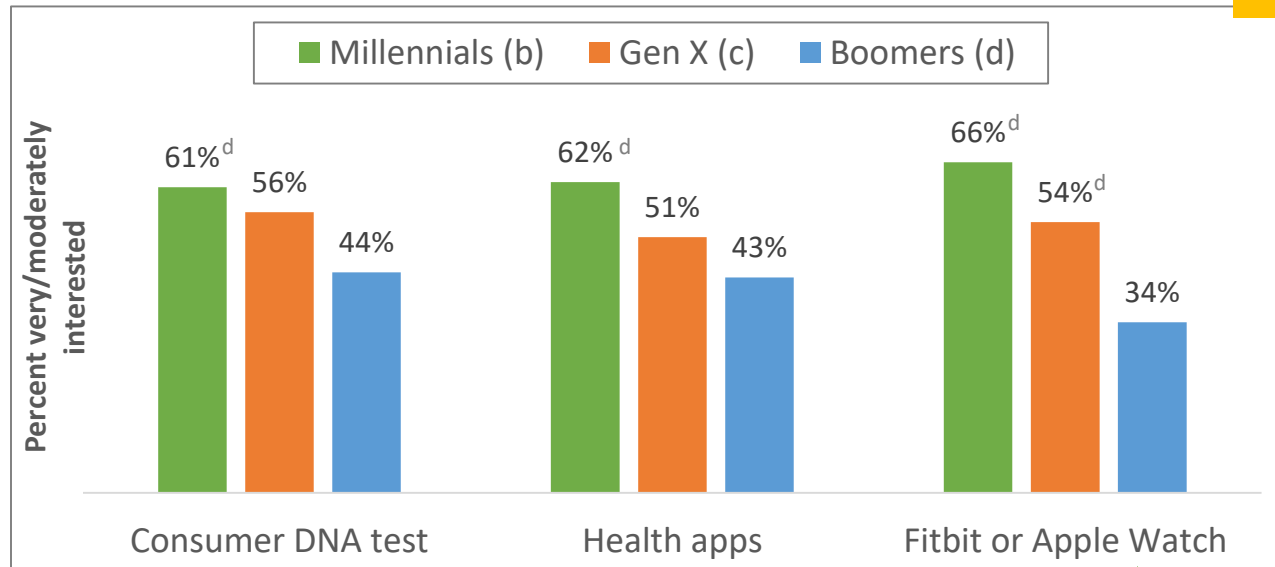
Talking with my physician about health data from a **Fitbit** or **Apple Watch**



Using **Lyft** or **Uber** for medical appointments



Consumers



Q200. For each of the following activities, please indicate how interested you are in using it for your health or your family's health. If you have already used it before, please choose that option? Base = 300 consumers (100 Millennials, 100 Gen X, 100 Boomers).

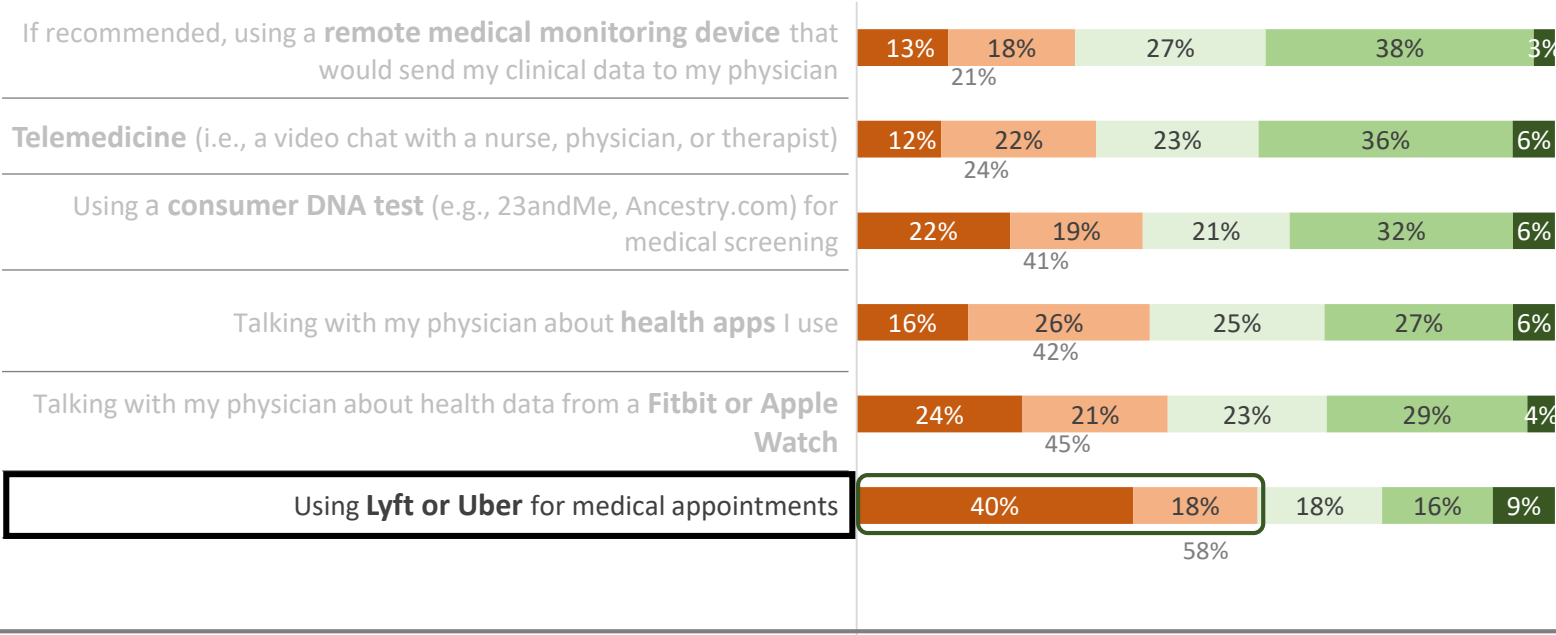
General interest is lowest for using **Lyft or Uber** for medical appointments.



Consumers

Interest in Using Consumer Health Technologies

Not at all Slightly Moderately Very Have already done this



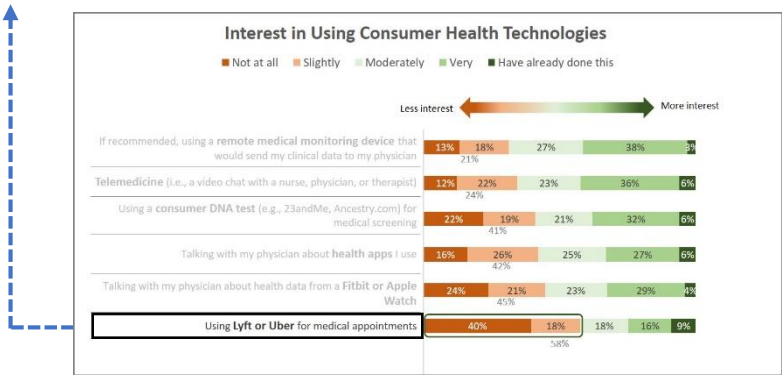
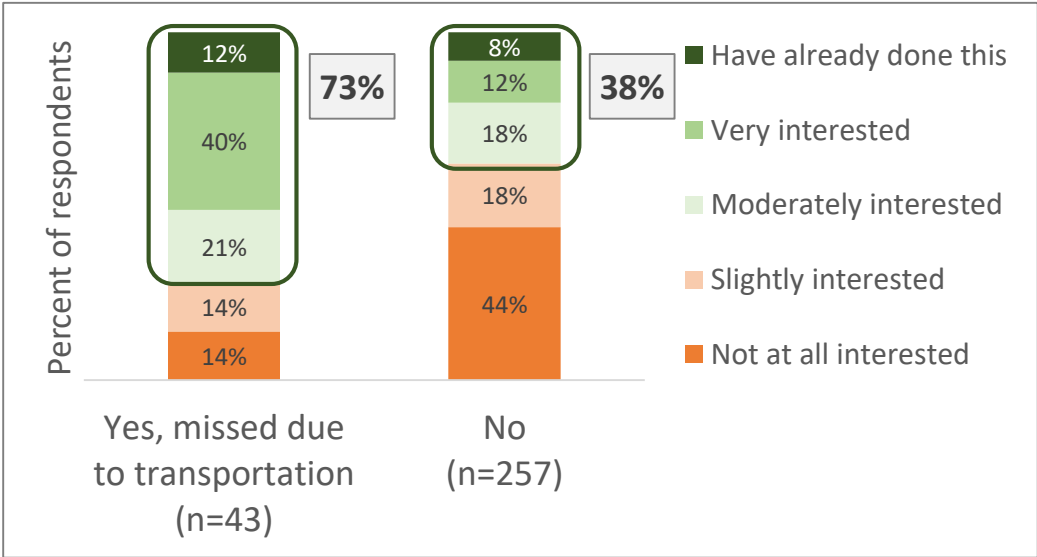
However, ridesharing interest is very high among consumers who have ever missed a medical appointment or not seen a doctor because they did not have transportation.



Consumers



Missed Medical Appointments and Interest in Lyft/Uber



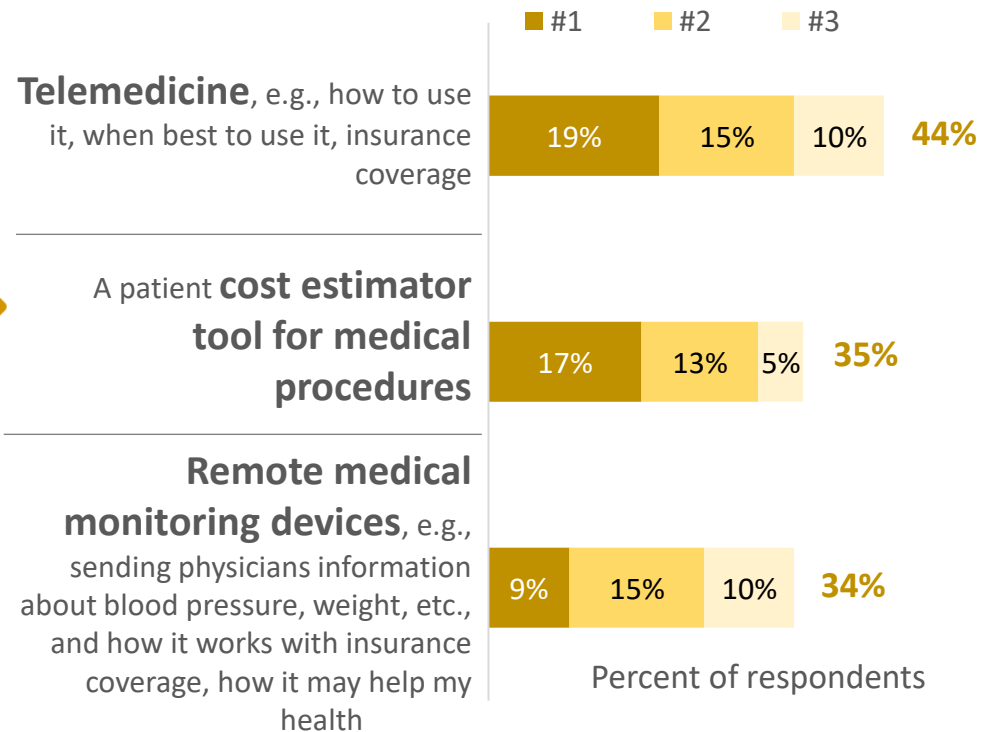


Consumers

Need for Information	%
Telemedicine	44%
A patient cost estimator tool for medical procedures	35%
Remote medical monitoring devices	34%
Consumer DNA tests	33%
Health apps	28%
Patient self-scheduling apps	28%
A patient cost estimator tool for Rx drugs	27%
Fitbit or Apple Watch health data	17%
Patient registration tablets	11%
Patient registration kiosks	11%
Lyft or Uber for medical appointments	6%

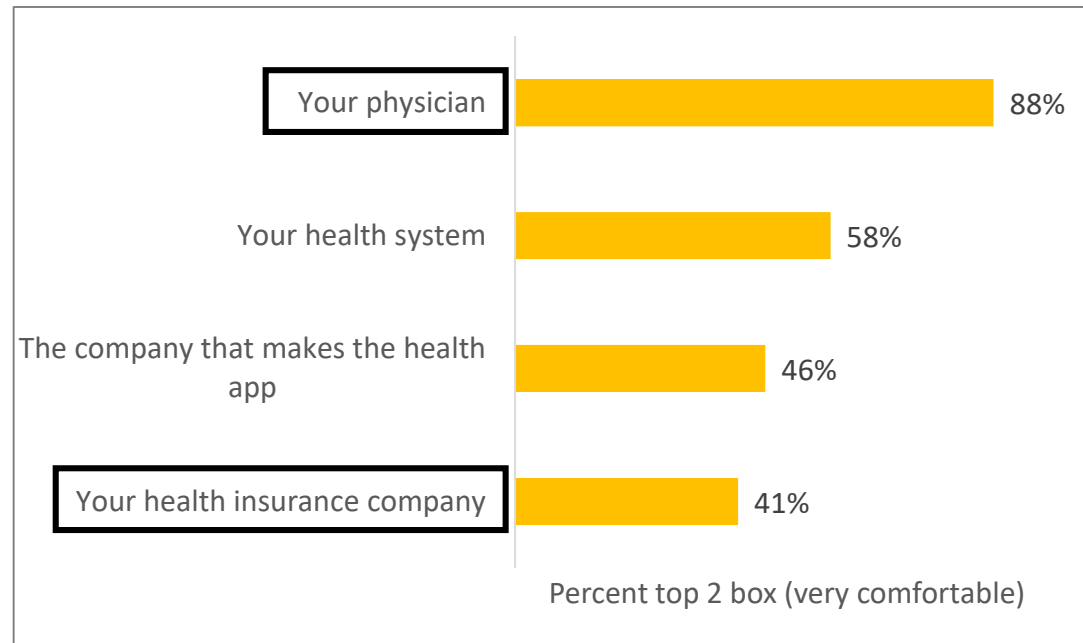


Consumers' Top Needs for Better Information





Comfort Sharing Health App Information with Sources



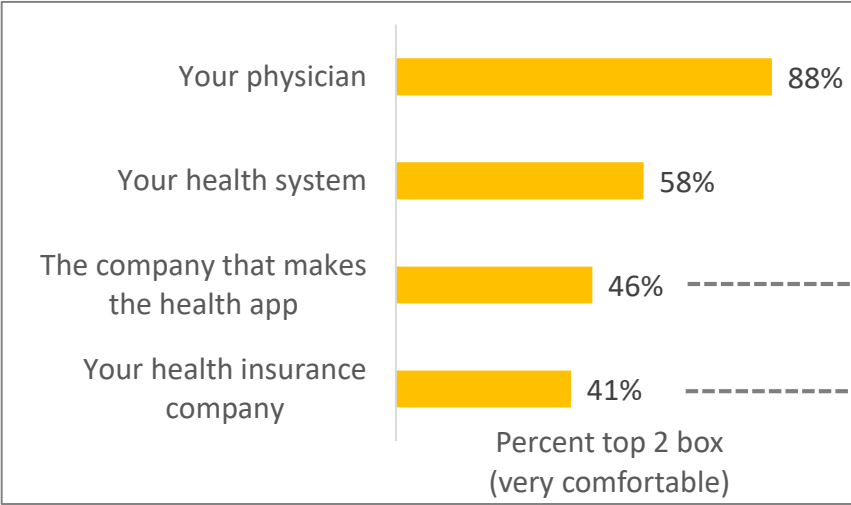
Q402. If you had information about your fitness in an app (e.g., steps, distance, calories burned, active minutes, stairs climbed, and sleep), how comfortable would you be sharing it with each of the following organizations/people to learn if they had programs that might help you with your fitness goals? Base = 300 consumers (100 Millennials, 100 Gen X, 100 Boomers).

Millennials, in particular, credit a health app maker over their health insurer.



Consumers

Comfort Sharing Health App Information with Sources

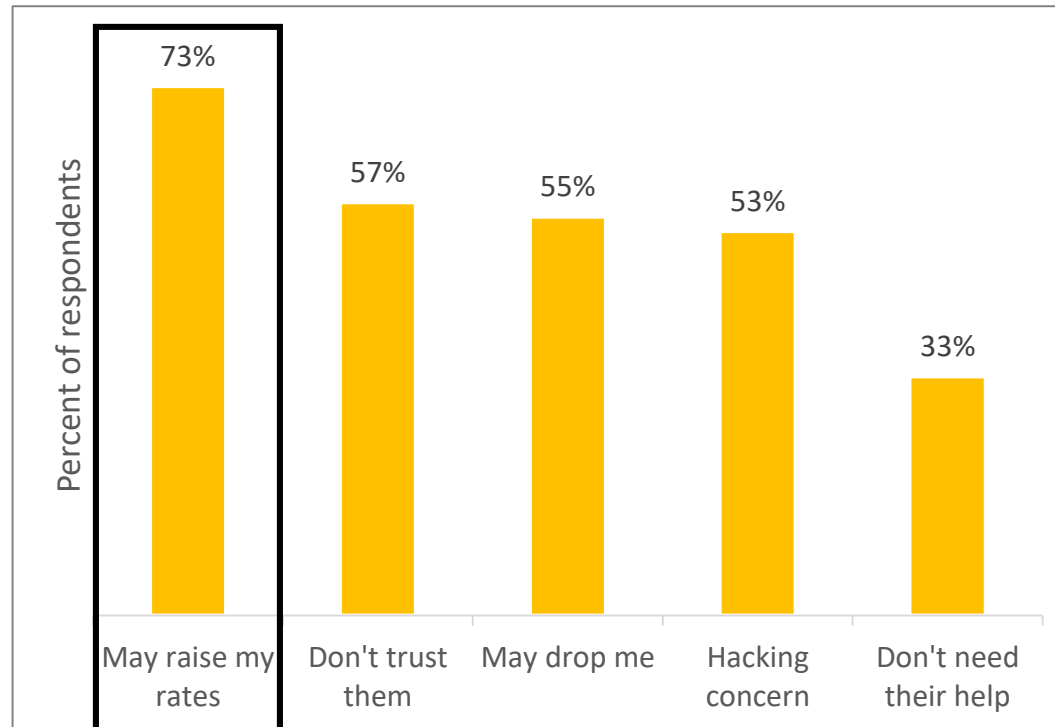
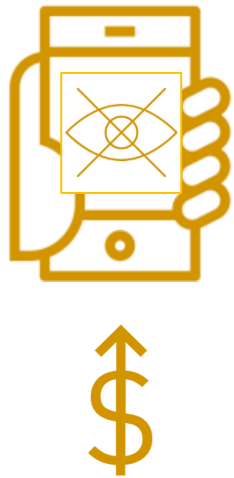


	Millennial (b)	Gen X (c)	Boomer (d)
App maker	62% ^{cd}	42%	33%
Health insurer	46%	41%	35%





Reasons for Not Sharing Health App Data with Your Health Insurer



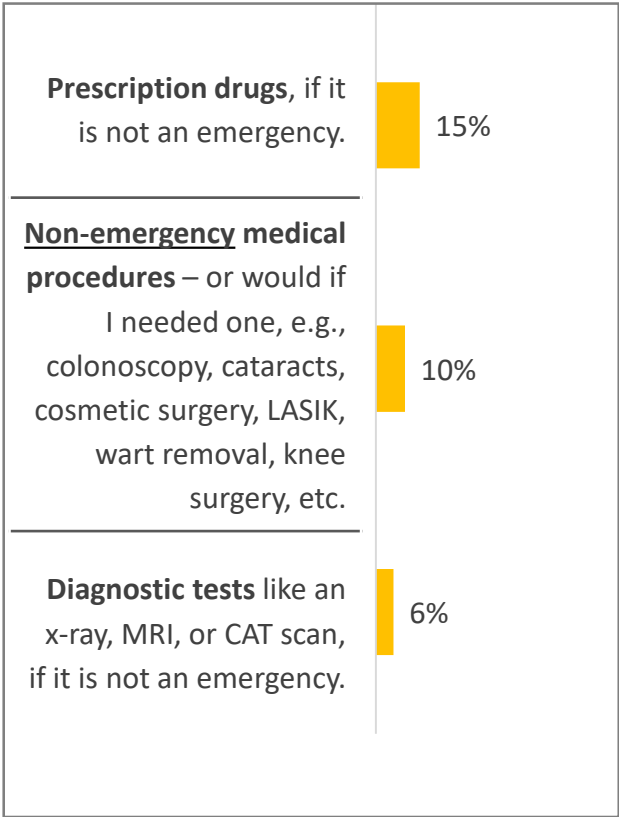


Relatively few consumers **shop medical prices** now, but many are interested, particularly Gen Xers and millennials.

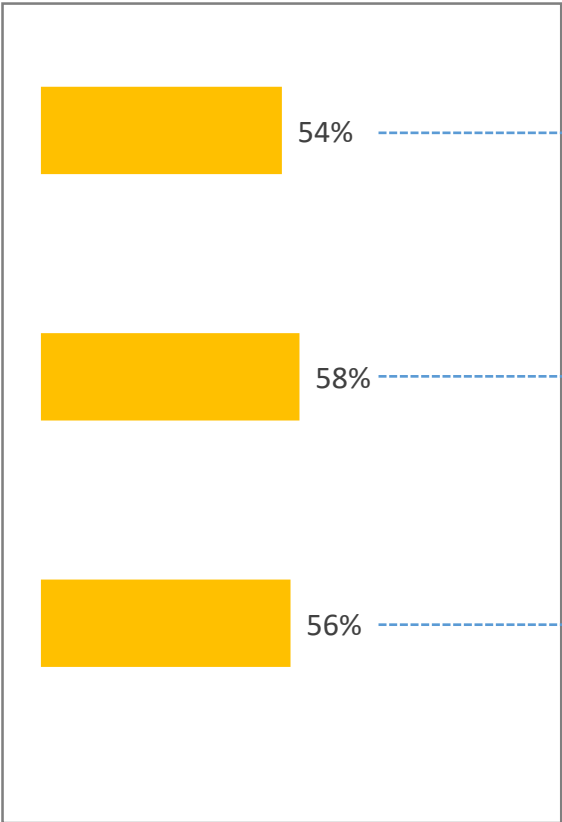
Consumers

Shopping Around for the Best Price on...

I do this now



Interest in doing this
(% top 2 box)



Millennial (b)	Gen X (c)	Boomer (d)
56%	62% ^d	43%
68% ^d	62% ^d	43%
59% ^d	64% ^d	44%

Q406. Now, please think about how interested you are in shopping around for the best price on different types of non-emergency medical care. By shopping around, we mean you check in some way to see if another source provides the same quality service at a lower cost. If you already do this now, please check that option. Base = 300 consumers (100 millennial, 100 Gen X, 100 Boomer). Top 2 box reflects moderately/very interested.
© Zeldis Research 2018

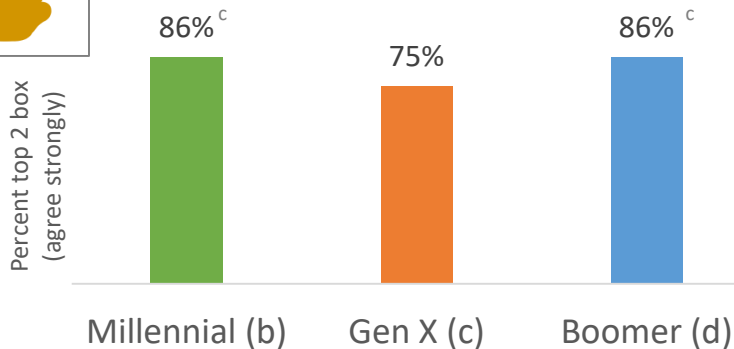


Consumers

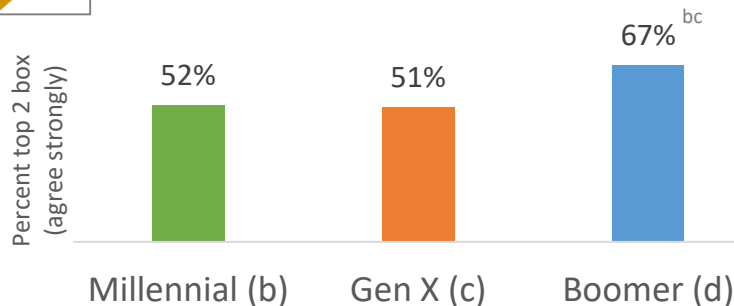
Some Other Generational Differences



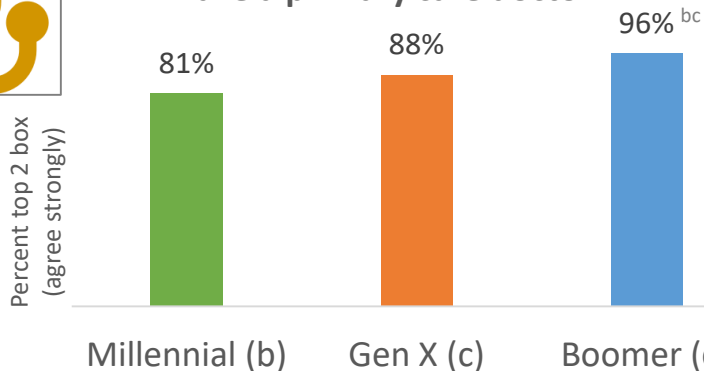
Childhood vaccines are safe



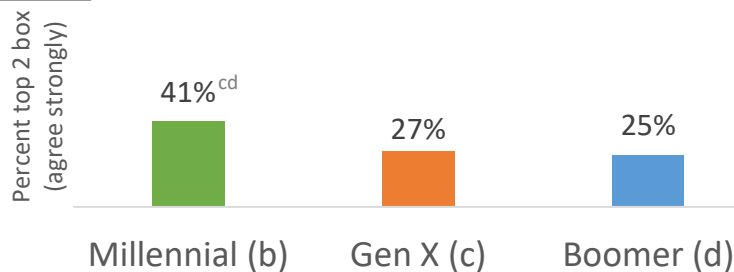
Important to get a flu shot every year



Have a primary care doctor



Choose a telemedicine visit over urgent care or a next day in-office visit



Key Findings: Primary Care Physicians



01

Nearly half of PCPs do not feel ready for telemedicine, consumer DNA tests or remote medical monitoring devices in primary care.

In contrast, they do feel ready to talk with patients about **health apps** or **wearable health data** -- particularly millennial PCPs do.



02



Of all the consumer health tools assessed, PCPs are most excited about the future of telemedicine in primary care.

PCPs are interested in guidance on how to work in primary care with telemedicine and with remote medical monitoring devices.

03

Conversely, PCPs are most concerned about consumer DNA tests negatively impacting their practice over the next 5 years.

They are worried about a lack of guidance on how to counsel patients and about inaccurate or incomplete data.



04



Apple Watch Series 4

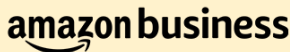
As a new consumer health device, the Apple Watch with an ECG monitor garners mixed initial reactions from PCPs.

A third expect it will have both a positive and a negative impact on their practice, with concerns mainly about false positives, patient stress and added office visits.

05

5 years from now, most PCPs expect their practices will be spending a greater share of their medical supply budget with Amazon.

Both independent and health system practices expect they will migrate their spend from traditional medical supply distributors, e.g., Cardinal Health, Medline, etc.



Key Findings: Consumers



01

Like PCPs, most consumers are interested in telemedicine for their health.

Consumers are also interested in remote medical monitoring devices and want more information about how it and telemedicine may support their health.



02



Interest is mixed for consumer DNA testing, or talking with a physician about health apps, Fitbit or Apple Watch.

The split is partly by generation, with millennials much more interested in these consumer health technologies.

03

Interest in Lyft/Uber for medical appointments is very high among consumers with transportation problems.

1 in 7 consumers (14%) in our sample say they have missed a medical appointment or not seen a doctor because they did not have transportation.



04



Many consumers are relatively reluctant to share their health app information with their health insurer.

Millennials, in particular, feel more comfortable sharing this data with an app manufacturer over their health insurer.

05

Relatively few consumers shop medical prices now for prescriptions, diagnostics or procedures, even when they're not an emergency.

However, many are interested in doing so, particularly Gen Xers and millennials.





Thank you on behalf of:



For more information, please contact:
Jeff Mann, Senior Research Director, Zeldis Research
Jeff@ZeldisResearch.com | 609-737-7223, x217