Prescription Application Development

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Purpose Statement

Objective

Identify if patient age should be targeted during our prescription application development

Purpose

- **WHY**: Want to know who our customers are and who uses our services the most

- **HOW**: Identify overall trends in age with prescription use and smartphone use

Data

National Health Expenditure

- Expenditure in the United States on prescription drugs has continued to increase over time

- Trend is likely to continue

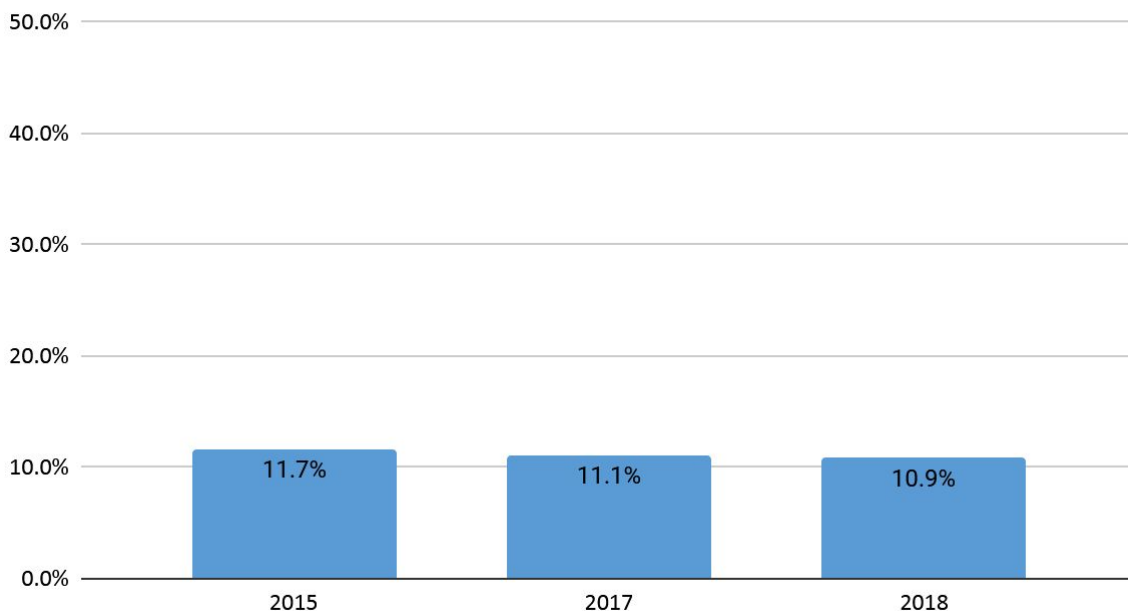National Health Expenditure on Prescription Drugs
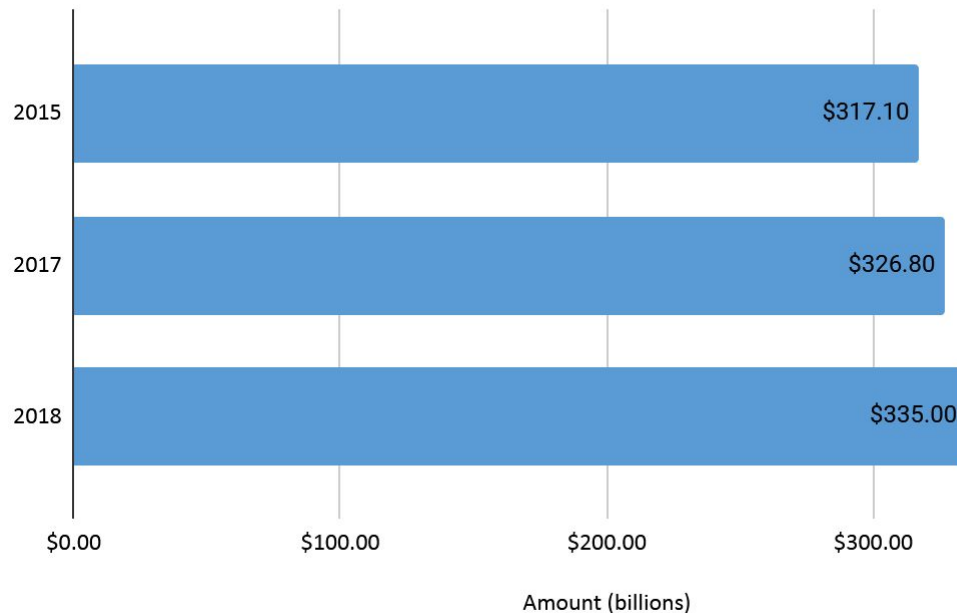
Year	Amount
2015	$317.10
2017	$326.80
2018	$335.00

Amount (billions)

Source: Centers for Disease Control and Prevention (CDC): "National health expenditures, average annual percent change, and percent distribution, by type of expenditure: United States, selected years 1960–2018"

Personal Health Care Expenditures

- Prescription drugs account for near 11% of personal health care expenditures

- Percentage has remained steady

Prescription Drugs as Percent of Personal Health Care Expenditures
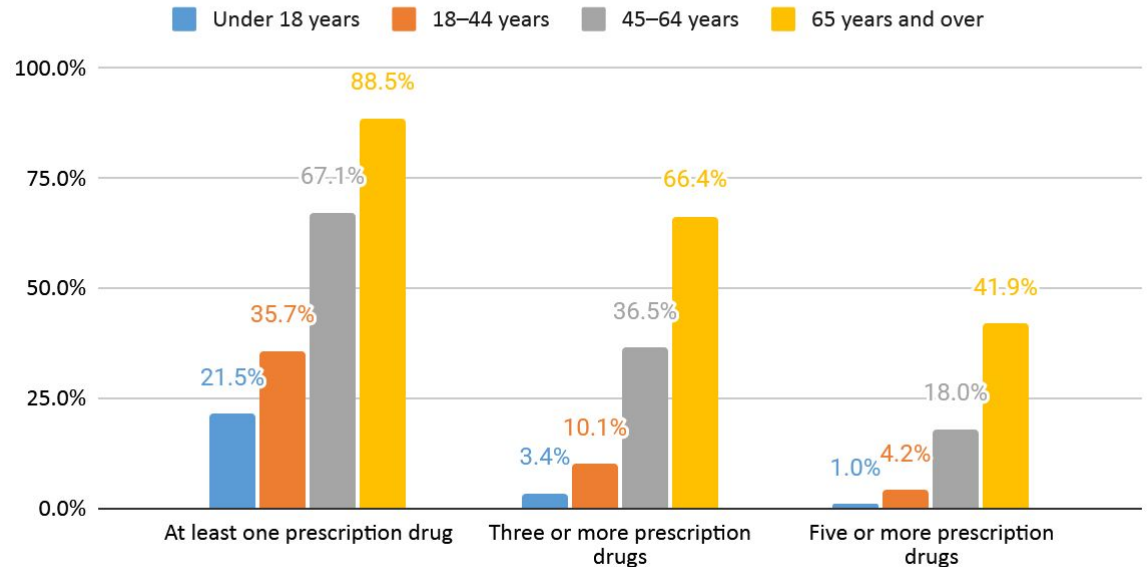

Source: Centers for Disease Control and Prevention (CDC): "National health expenditures, average annual percent change, and percent distribution, by type of expenditure: United States, selected years 1960–2018"

Prescription Drug Use

- Age has an influence on prescription drug usage

- More prescriptions are used on a 30 day basis for the oldest grouping

Prescription Drug Use in Past 30 Days
From 2015-2018

Under 18 years   18–44 years   45–64 years   65 years and over

At least one prescription drug: Under 18 years 21.5%, 18–44 years 35.7%, 45–64 years 67.1%, 65 years and over 88.5%

Three or more prescription drugs: Under 18 years 3.4%, 18–44 years 10.1%, 45–64 years 36.5%, 65 years and over 66.4%

Five or more prescription drugs: Under 18 years 1.0%, 18–44 years 4.2%, 45–64 years 18.0%, 65 years and over 41.9%
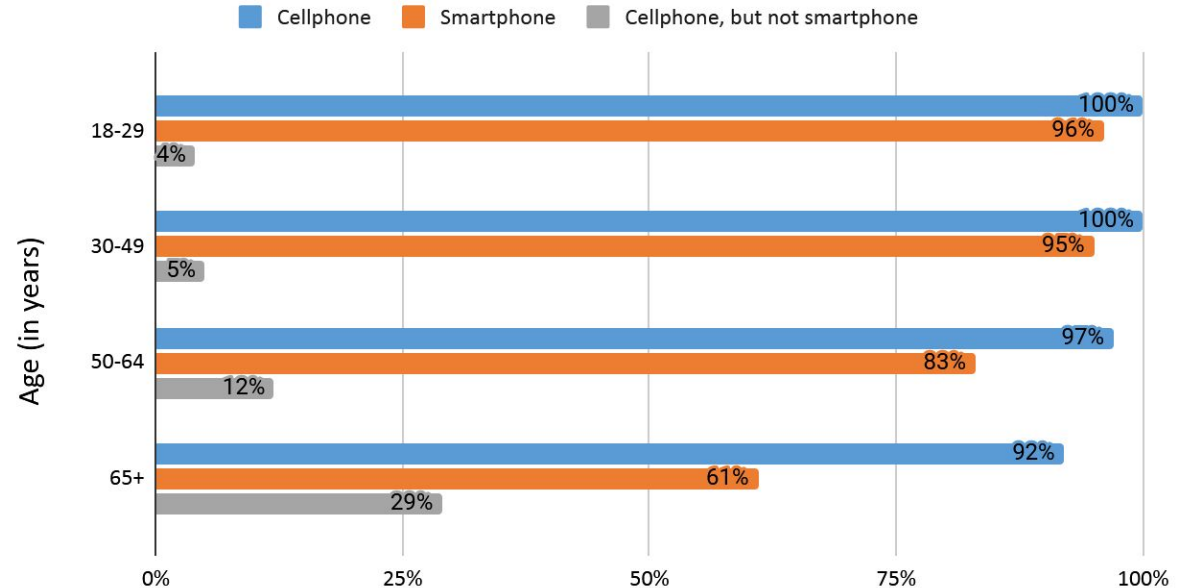
Source: Centers for Disease Control and Prevention (CDC): "Prescription drug use in the past 30 days, by sex, race and Hispanic origin, and age: United States, selected years 1988–1994 through 2015–2018"

Smartphone Use

- Smartphone use decreases by age

- Possibility of using smartphone application to reach older population decreases due to lack of device usage

Cellphone versus Smartphone Usage by Age

Legend: ■ Cellphone ■ Smartphone ■ Cellphone, but not smartphone

Age (in years)

18-29
- Cellphone: 100%
- Smartphone: 96%
- Cellphone, but not smartphone: 4%

30-49
- Cellphone: 100%
- Smartphone: 95%
- Cellphone, but not smartphone: 5%

50-64
- Cellphone: 97%
- Smartphone: 83%
- Cellphone, but not smartphone: 12%

65+
- Cellphone: 92%
- Smartphone: 61%
- Cellphone, but not smartphone: 29%

X-axis: 0%, 25%, 50%, 75%, 100%

Source: Pew Research Center: "Mobile Fact Sheet" - Source: Survey of U.S. adults conducted Jan. 25-Feb. 8, 2021.

Conclusion

Conclusions

- Prescription drug expenditures continue to be a **significant cost** for both the United states and patients as a whole

- **Older patients** use **more** prescription medications than younger patients

- **Older patients** are **less likely** to have a smartphone in order to use applications so they may be more difficult to target

Future Analysis

- Other factors (besides age) that influence amount of prescription drugs used

- Survey of our older customers to find out what method of contact or reminder service would be most beneficial

- Discussion of how application development could be geared toward our older customers