Innovation driving pharmacy today

Mitch Larson
9/12/2020

Learning Objectives

Pharmacist Objectives:

1. Describe the impact of past pharmacy innovations on the advancement of the practice of pharmacy
2. Evaluate the ways in which new innovations can be implemented in your practice to provide better patient outcomes.
3. Address common misconceptions surrounding the innovations in pharmacy, and discuss how they can be impactful in practice today.

Pharmacy Technician Objectives:

1. Describe the role of a pharmacy technician as pharmacy continues to evolve with new innovations
2. Examine the viability of technicians performing their duties safely and accurately without the pharmacist supervision associated with traditional pharmacy methods

Agenda

1. What is innovation?
2. Why do we need to innovate?
3. How do we innovate?
4. Pharmacy innovations of today

1

What is innovation?

Definition

Translating an idea into something that creates value

Everyday examples

Twitch - Livestreaming

Uber/Lyft - Ridesharing

Square - Payments

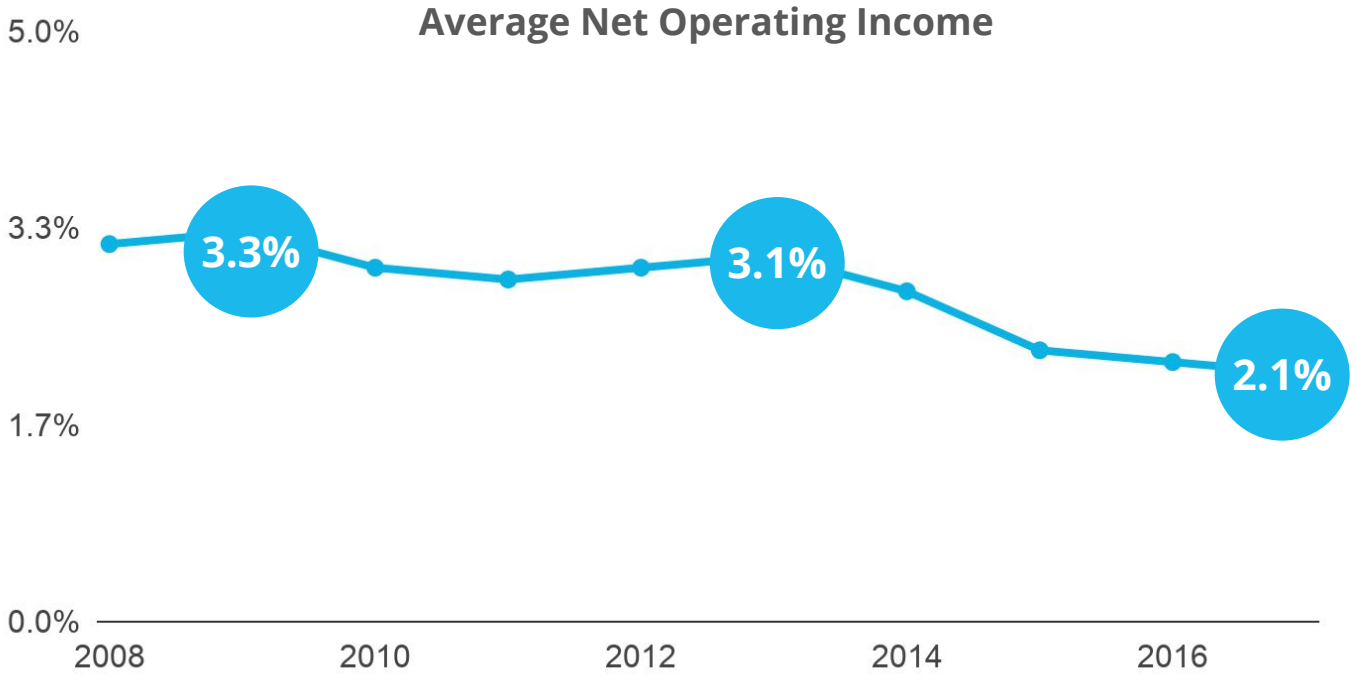
Milk substitutes - Oat Milk

Meatless meat - impossible burger, beyond burger

2

Why do we need to innovate?

Pharmacies struggle to be profitable



Source: https://www.ncpanet.org/home/ncpa-digest

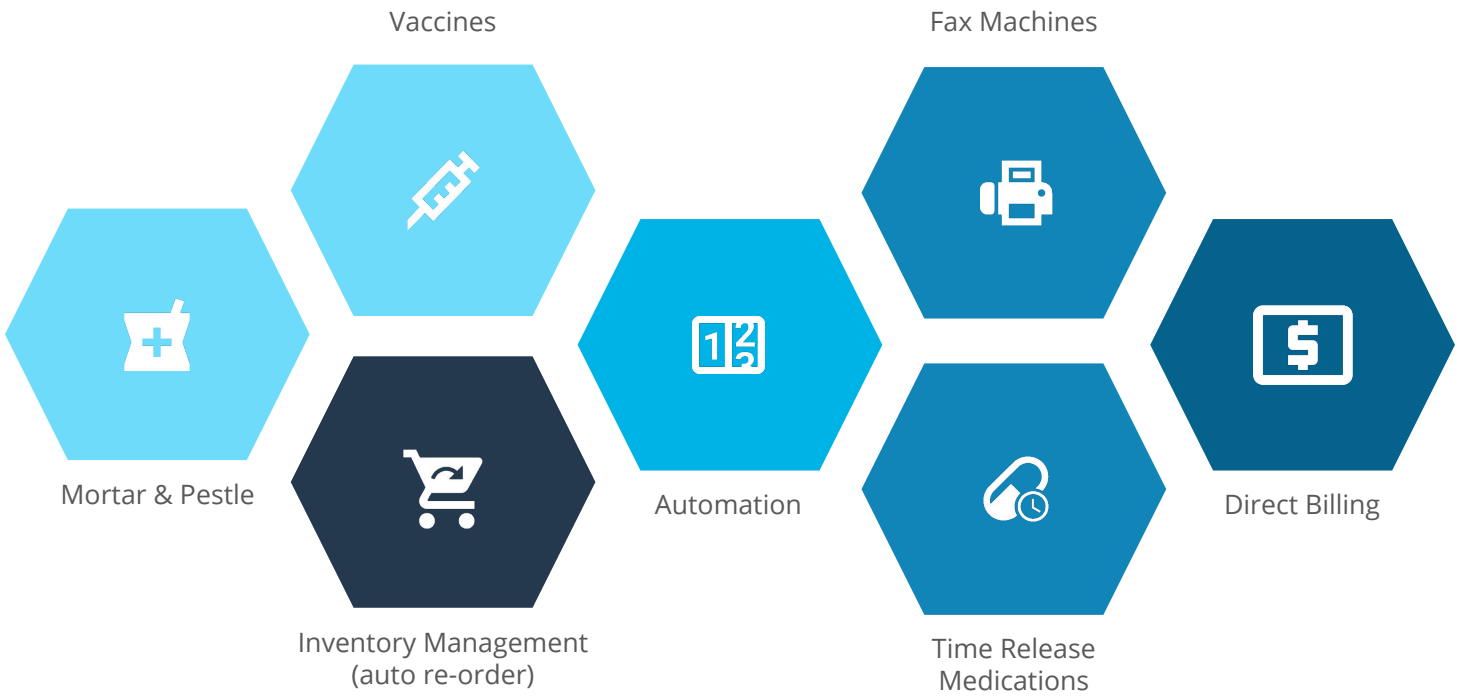
Industry Pressures

- Mail order pharmacies
- Practitioner dispensing
- Reduced reimbursement fees
- Increased competition

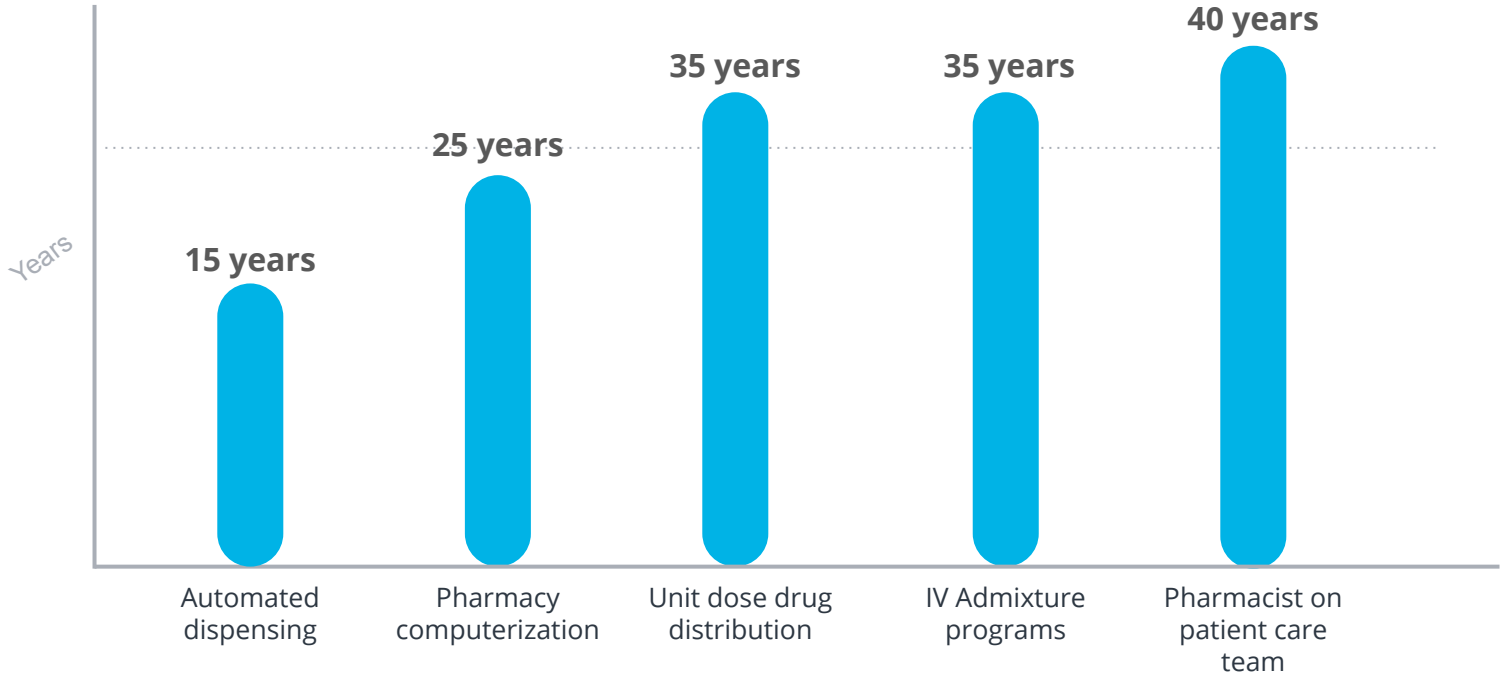
Industry Opportunities

+ Technological advancements
+ Patient-centered care
+ Demand from MUA’s
+ Proven safety and efficiency of existing technologies

Advances in pharmacy increase safety & efficiency

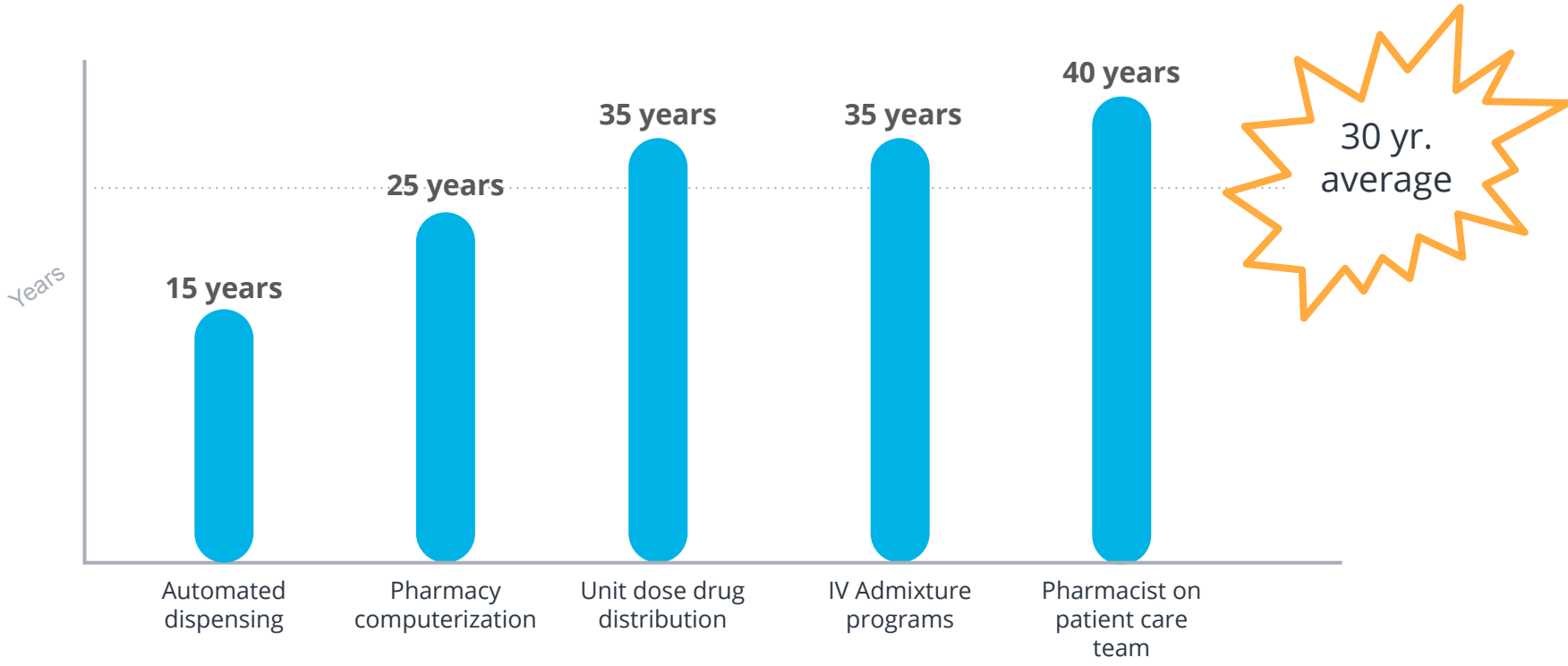


Slow adoption of past pharmacy innovations



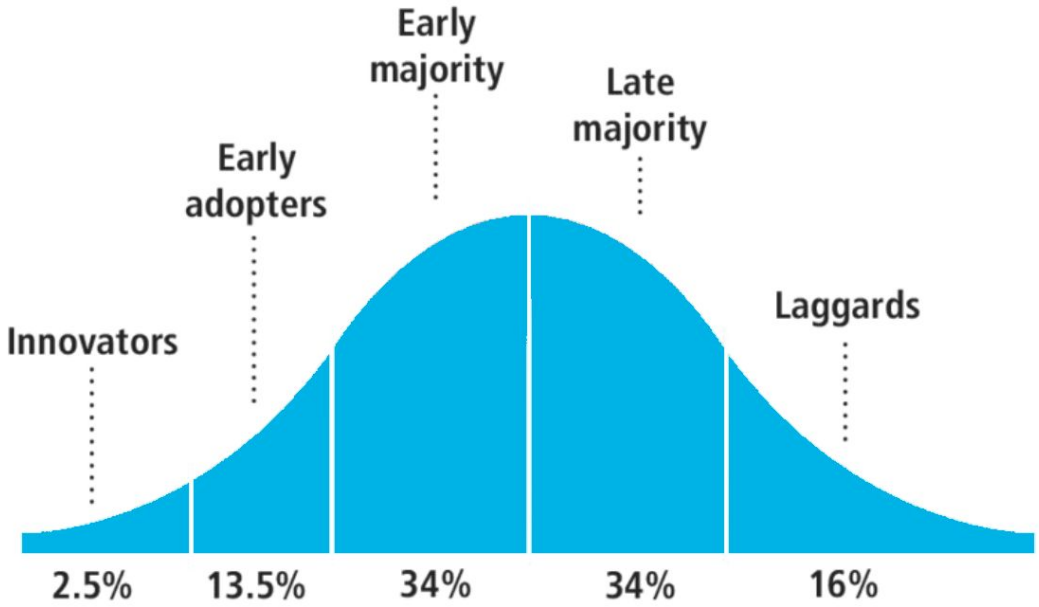
Data from ASHP National Survey

Slow adoption of past pharmacy innovations

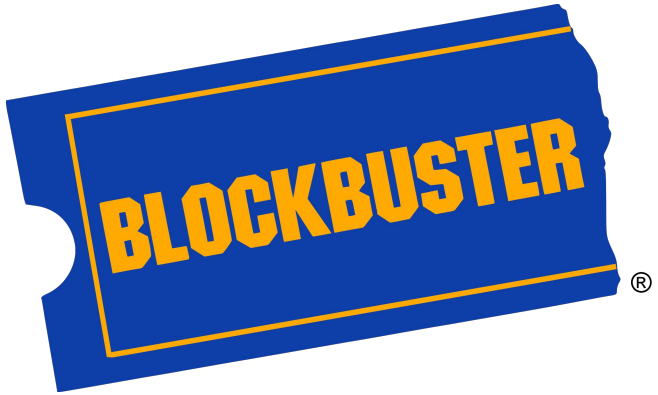


Data from ASHP National Survey

Innovation adoption lifecycle



What happens when we don’t innovate?



3

How do we innovate?

Pharmacists need to find ways to:

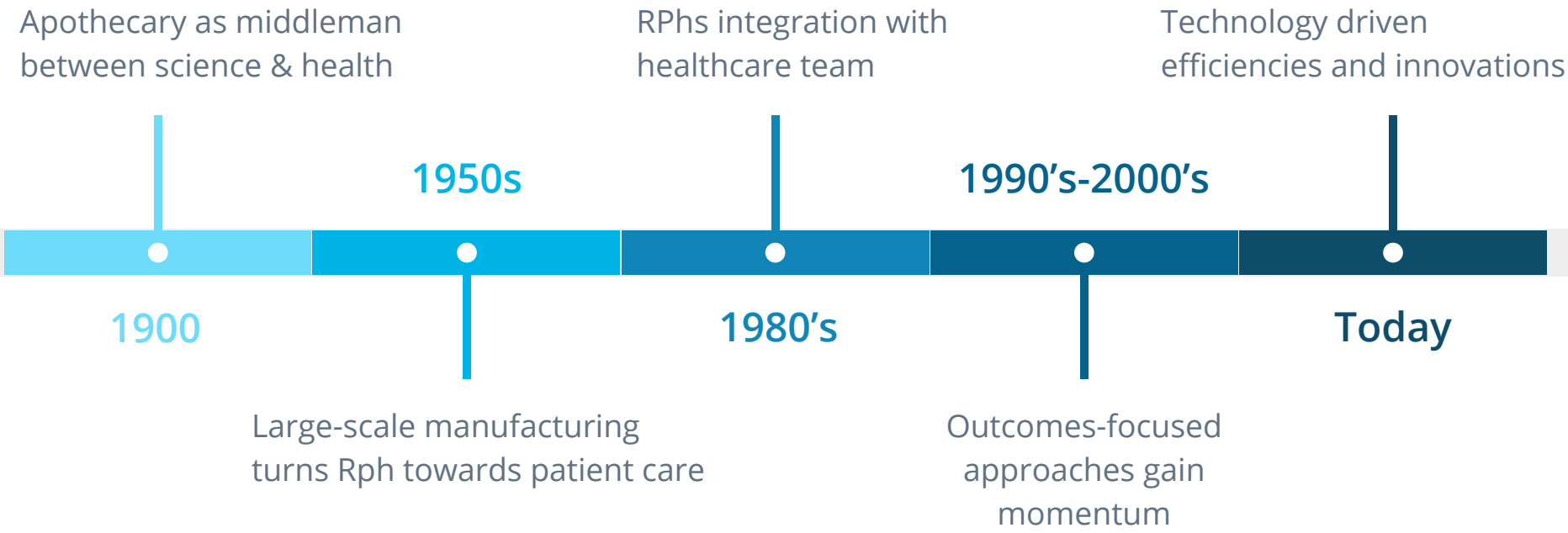
Increase revenue by adding value

Practice at top of their license

Reduce or better optimize costs

Implement innovative practices

Role of the pharmacist has changed



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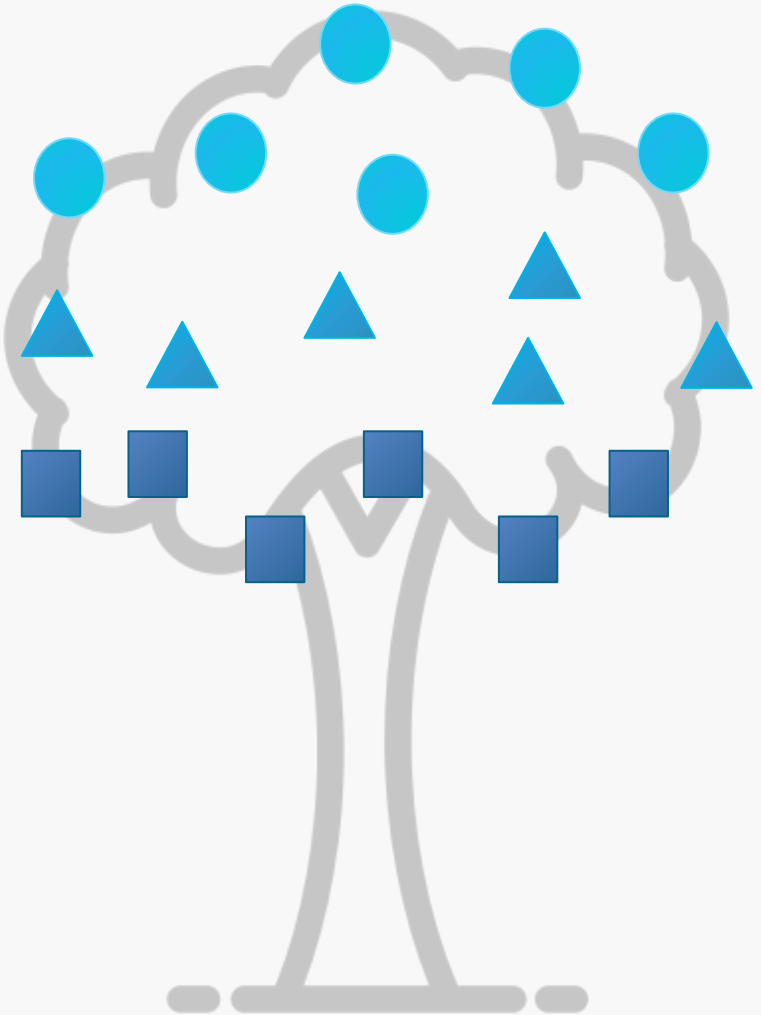
Pharmacy innovations of today

High

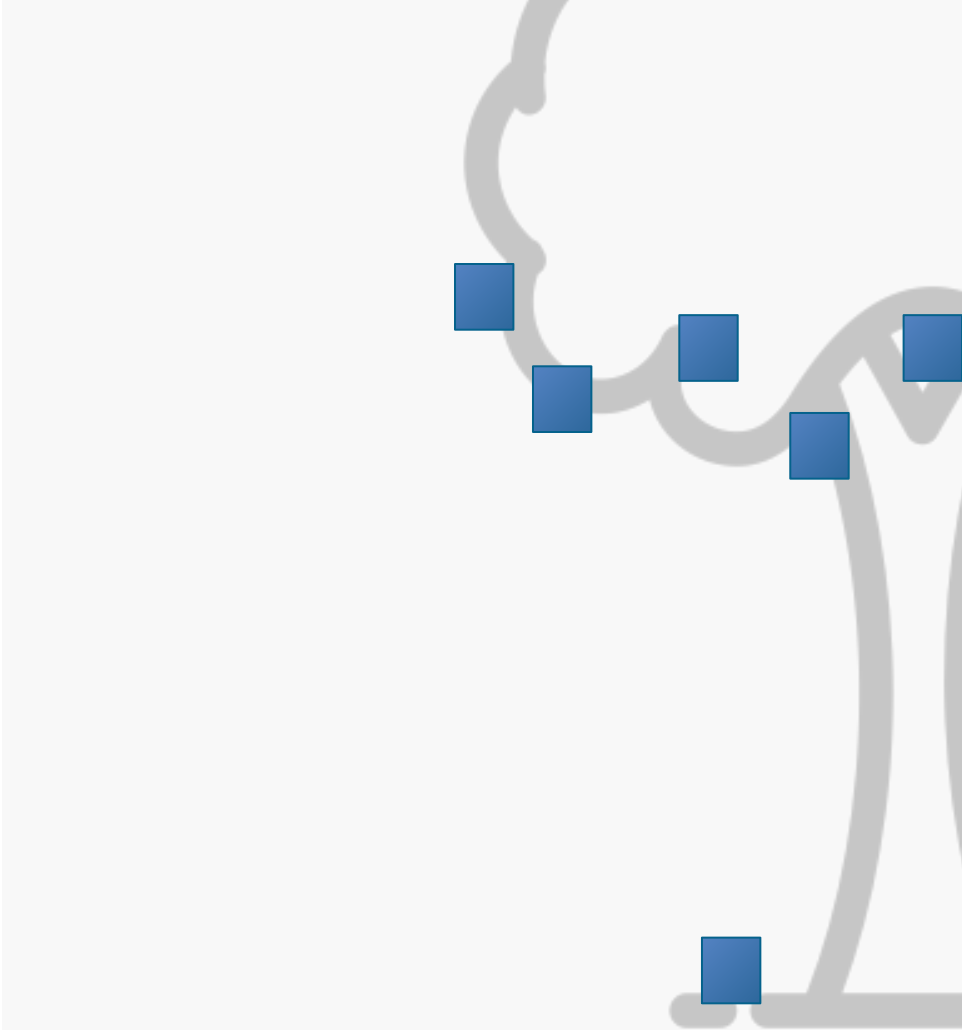
Medium

Low



Low hanging fruit

- Creative delivery solutions
- Digital Pharmacy
- MTM



Creative Delivery Solutions

The demand [for delivery] is huge and it's only growing…two years from now, if a pharmacy doesn't have prescription delivery as a base offering that they actively market, then competing for patients will prove insurmountable.

Nick Potts, Founder and CEO of ScriptDrop

https://www.pbahealth.com/pharmacy-delivery-service

- What started with the foods industry service has spread to almost every other sector of retail.
- Food delivery service is predicted to be worth $76 billion by 2022

Examples

Storage Lockers

- Systems that **store and deliver** completed prescriptions for convenient pickup (sometimes 24/7)

Kiosks

- Systems that **dispense** prescriptions in high pharmacy traffic areas
- After hours pharmacy access

Examples

Drone

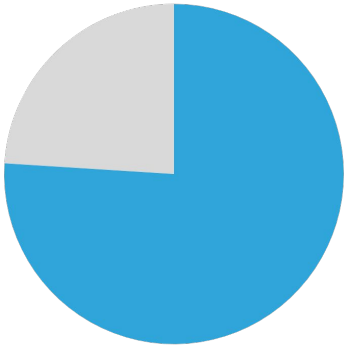
- Prescription is filled at the pharmacy
- Drone delivery to patient's location or home

Driver-based delivery

- Delivery becomes part of workflow with real-time tracking
- Prescription filled at closed or open-door pharmacy
- Delivered by a courier service or by the company
- Patient can request counseling from via phone

Why

76% of independent pharmacies offer delivery services



32% boost in adherence amongst statin users

88% Home delivery **vs** **56%** In store pick-up

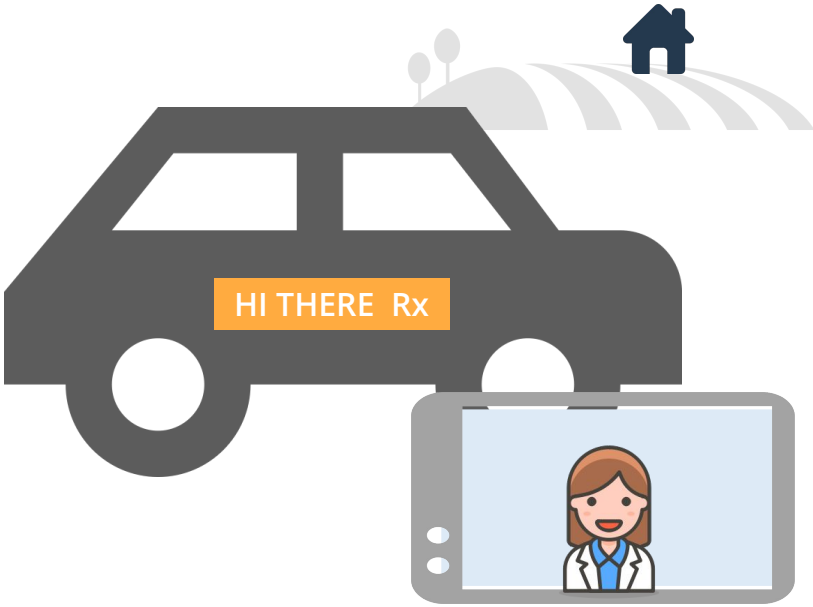
Source: 2019 NCPA digest
https://www.pcmanet.org/researchers-find-home-delivery-of-medications-improves-adherence-for-stroke-patients/

How

College campus

Employer campus

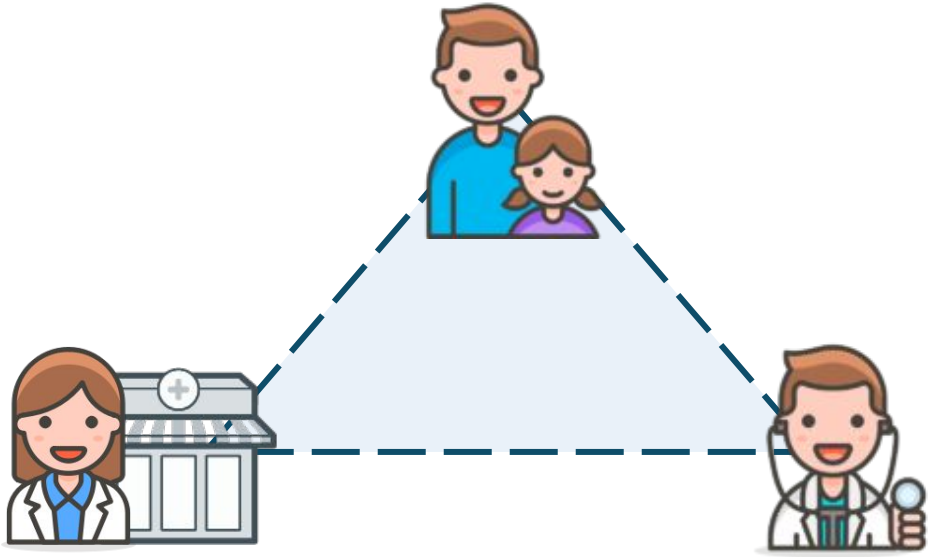
OR



Rx delivery with remote counseling

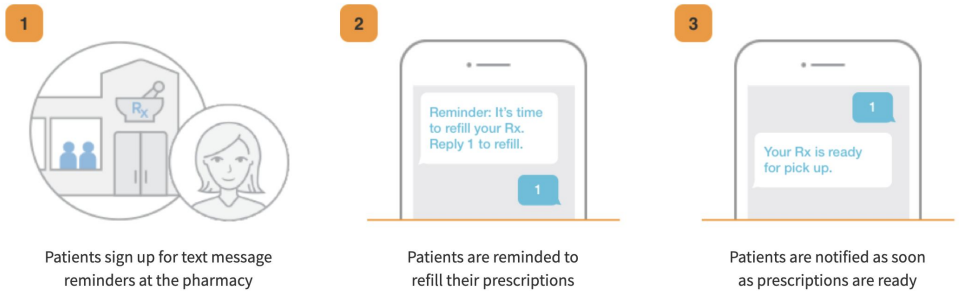
Digital Pharmacy

Mobile and web platforms that connect patients with pharmacies, health care providers, or health care systems



Can help patients increase adherence, compliance, understanding, and overall improve outcomes

- **Location awareness:**
  - Tools used to pinpoint location
  - Geofencing, WiFi locator, GPRS data
- **Texting/app services**
  - Messaging used at appropriate times to remind patient to return to pharmacy
    - Refill reminders
    - Immunizations
    - Clinical service offerings



Patients sign up for text message reminders at the pharmacy

Patients are reminded to refill their prescriptions

Patients are notified as soon as prescriptions are ready

Examples

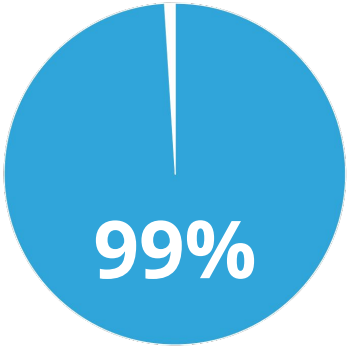
Mscripts, Digital Pharmacist etc

- Encourages self-service processes
- Enables pharmacists to do more clinical tasks
- Helps staff do less management of patient profiles and the day-to-day reminders
- Drives other clinical services while patient is actively in pharmacy

Why

Shortens gap between fills

Adds 3 or more fills per year



Higher patient retention

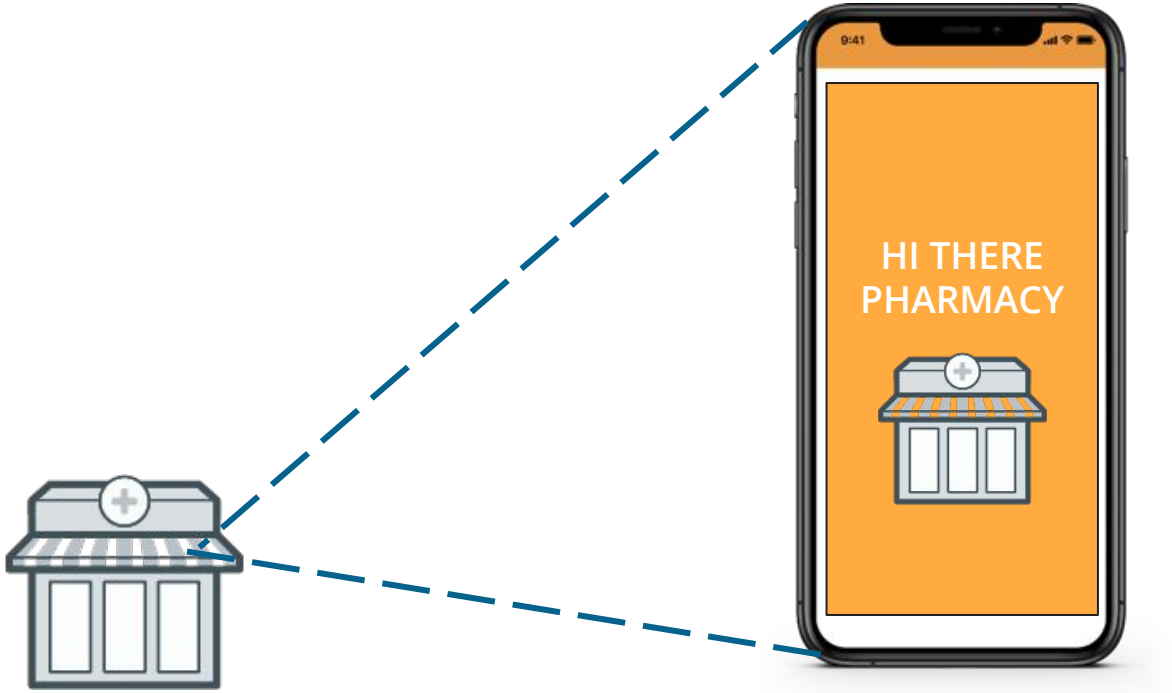
99% Retention Rate on platform

Quick refill response

50% of pts refill within 2hrs of text

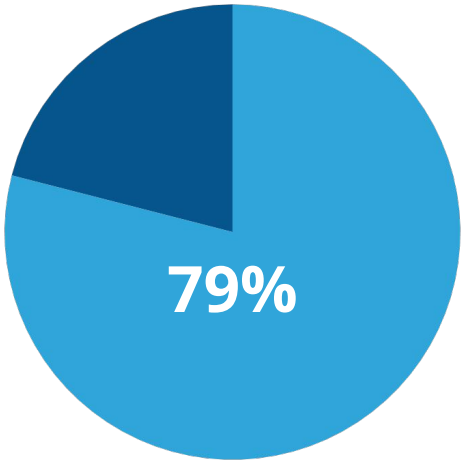
Source: https://www.mscripts.com/

How

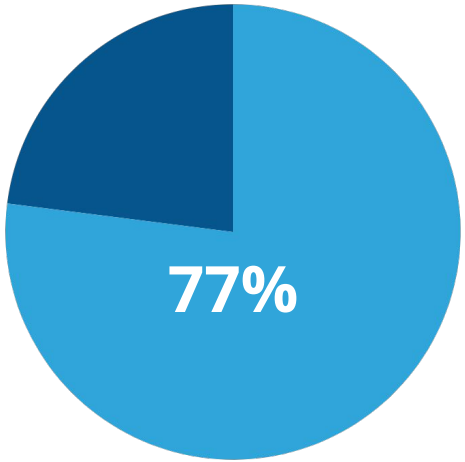


Medication Therapy Management

Independent community pharmacies offer a variety of services



Medication Synchronization



Medication Therapy Management

MTM Services:

- TIPs
- CMRs
- Adherence programs
- Med reconciliations

Source: https://www.ncpanet.org/newsroom/news-releases/2019/10/29/ncpa-releases-2019-digest

- Utilize shifting role of the pharmacist
- Holistic health outcomes approach
- Pharmacy techs and Interns to assist with MTM delivery

Examples

OutcomesMTM, Equipp, APCI, Star Rating system

New Service Offerings

- Lab and Health Test Monitoring
- Well child exam
- Preconception care
- Social Determinants of Health
- Disease state education

Why

Revenue earned at participating MTM locations in 2018

$100 M

When pharmacy techs and interns assist with MTM delivery pharmacies

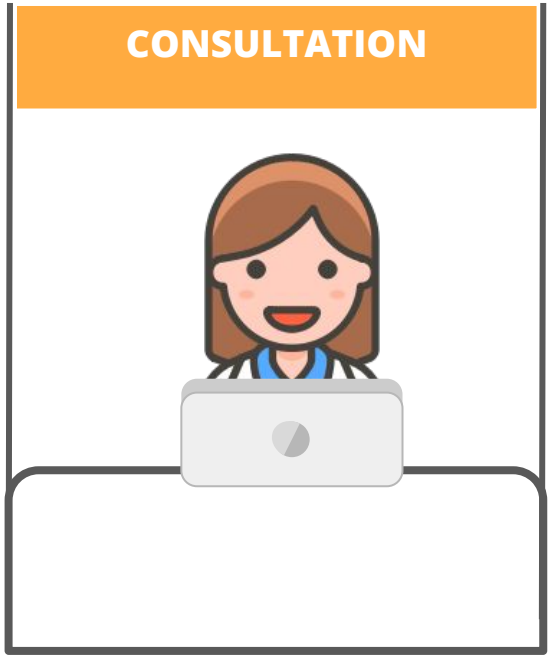
2X

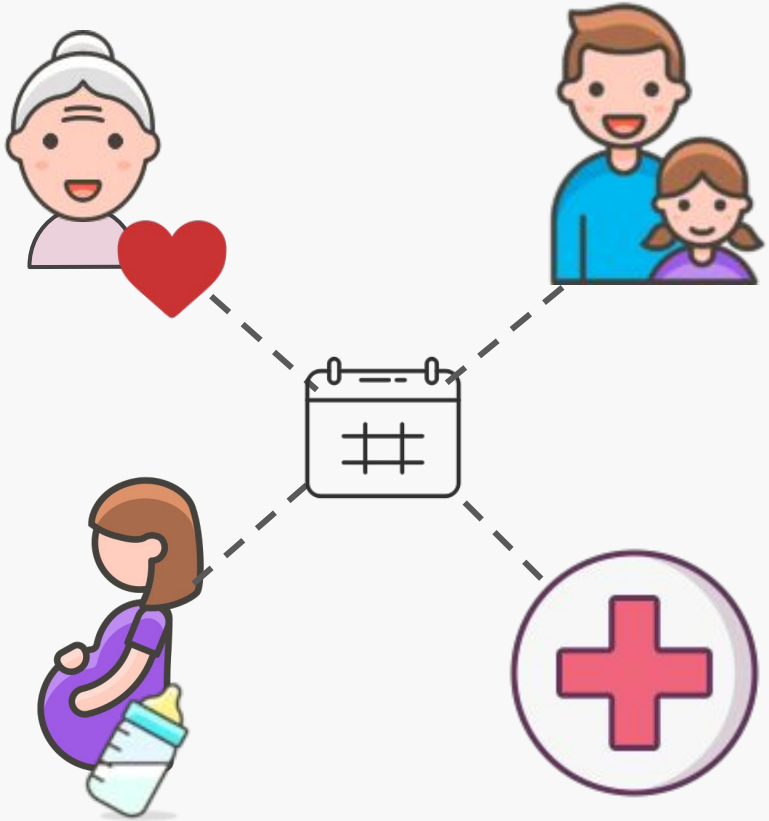
Earn more MTM revenue

Have higher CMR completion and TIP success rates

Source: https://www.outcomesmtm.com/pharmacy/

How



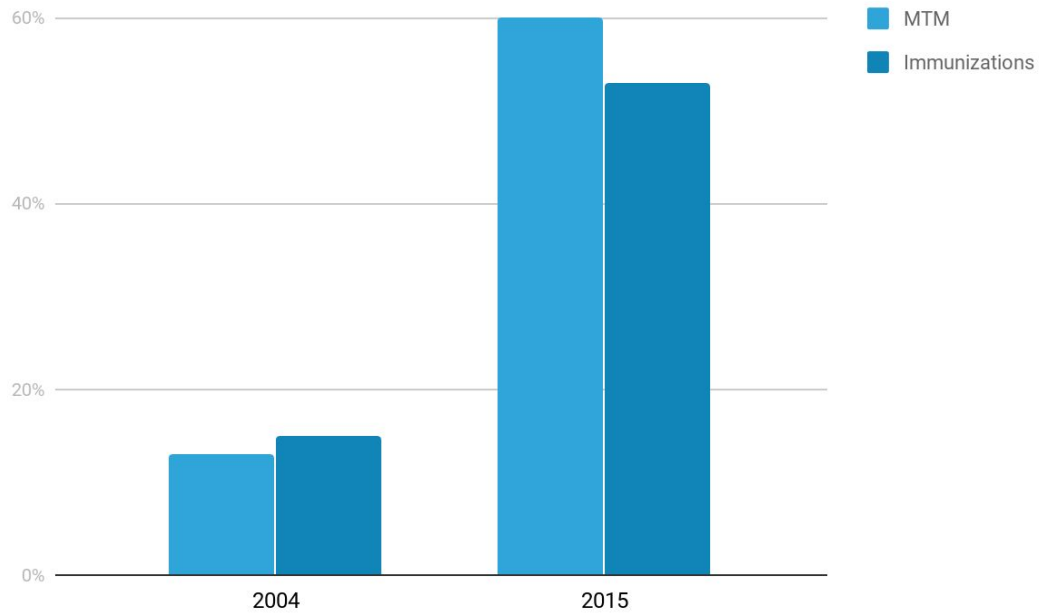


Medium hanging fruit

- Point of care testing
- Telepharmacy

Point of Care Testing

- Pharmacists are the most visited healthcare professionals
- Number of clinical services provided is increasing



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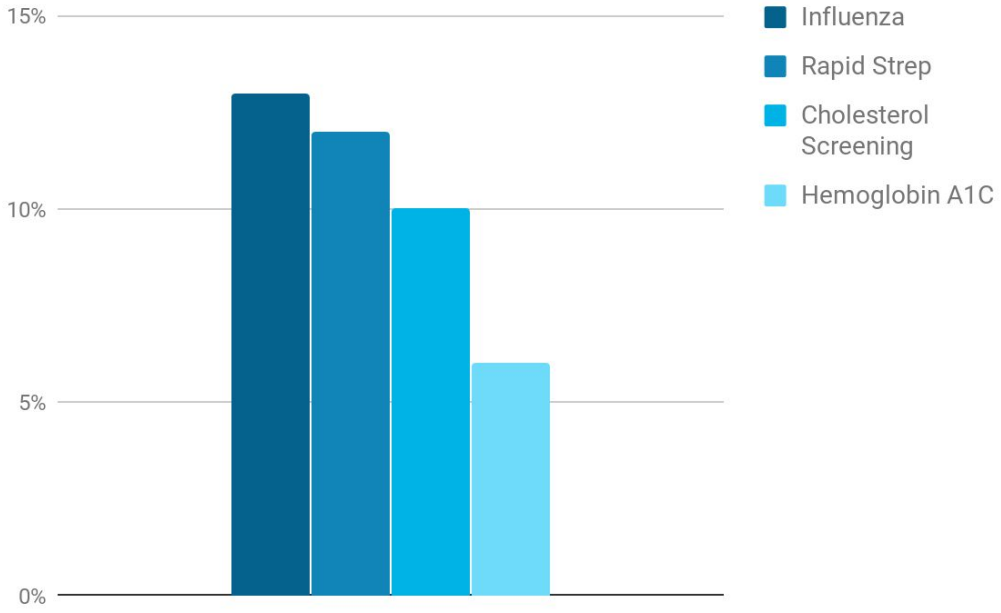
Examples

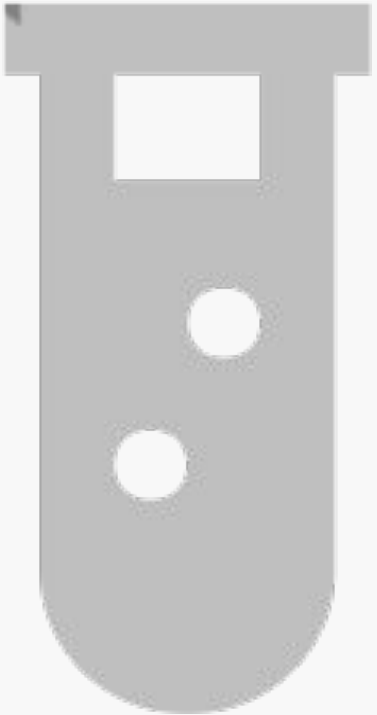
- Rapid, reliable diagnostic testing performed outside of a laboratory to identify or manage chronic diseases and acute infections



Source: https://www.ncpanet.org/newsroom/news-releases/2019/10/29/ncpa-releases-2019-digest

Why

- Predicted shortage of up to 55,000 PCPs by 2032
- Pharmacist is the most accessible health care professional
- Boosts patient outcomes and satisfaction
- POCT is predicted to exceed immunizations as a driver of revenue

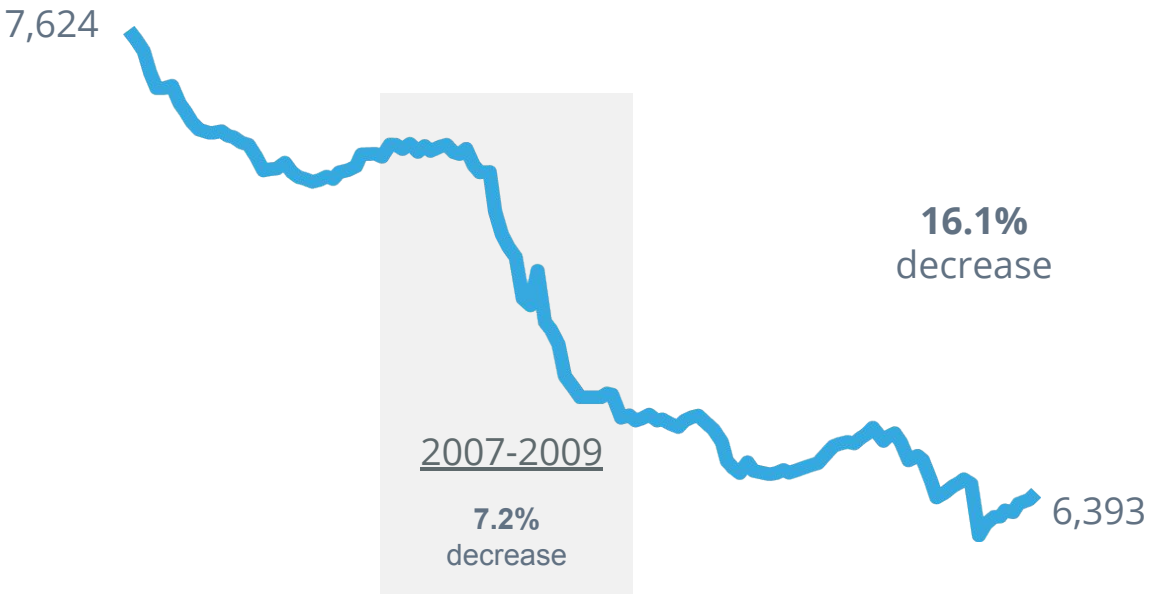


How

- Determine which services to provide
- Obtain CLIA waivers
- Applicable staff training and credentialing
- Setup site and equipment
- Market your new service offerings

Telepharmacy

Independent Rural Pharmacies 2003-2018



1,231

independent rural pharmacies closed

630

rural communities lost their only pharmacy

Source: Update: Independently Owned Pharmacy Closures in Rural America, 2003-2018;
RUPRI Center for Rural Health Policy Analysis, Rural Policy Brief July 2018; Abiodun Salako, MPH; Fred Ullrich, BA; Keith J. Mueller, PhD

4 types of telepharmacy:

INPATIENT

Remote order entry review

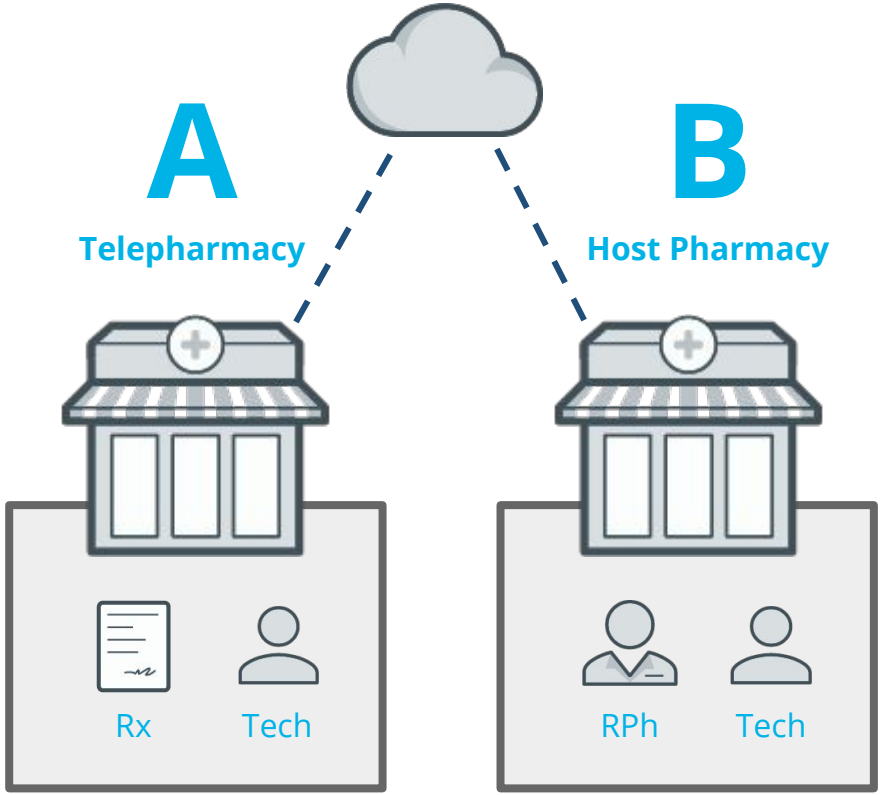
IV admixture

OUTPATIENT

Retail telepharmacy

Remote counseling

Retail telepharmacy



1. New prescription arrives at **Pharmacy A**
2. **Technician A** fills, taking images of the process
3. **Pharmacist B** reviews images to verify fill is accurate
4. Patient picks up Rx at **Pharmacy A** and **Pharmacist B** counsels

Why

Pharmacists have an opportunity with telepharmacy

Improve medication adherence rates

Expand access to new patient populations

Increase clinical interventions

How

Retail Telepharmacy Use Cases

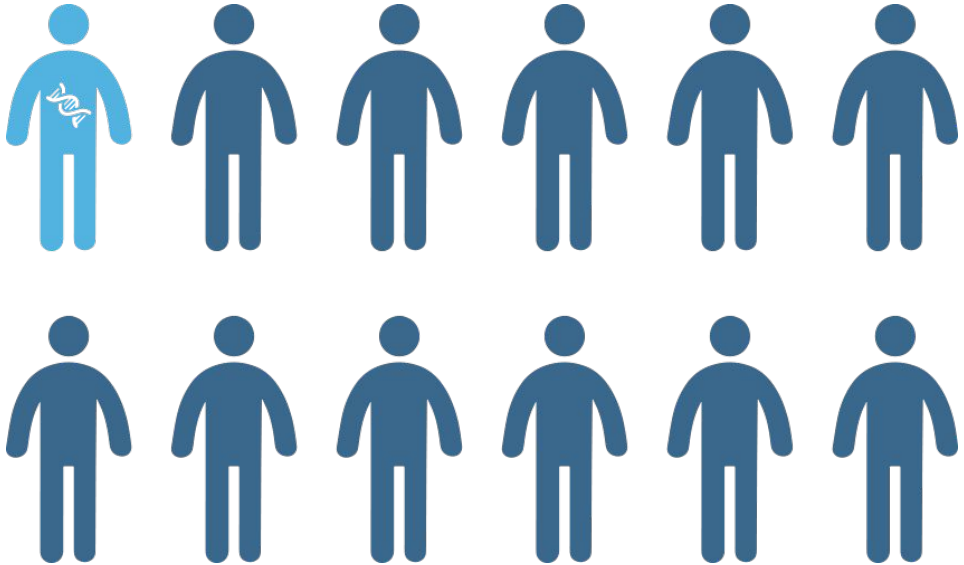
- Community pharmacy (rural or urban)
- Outpatient hospitals & health system pharmacies
- CHC & FQHC
- Specialty pharmacy
- Mental health centers
- Employer campuses & schools
- Physician’s offices
- Emergency preparedness
- After hours care
- Sick/vacation coverage
- And more…

High hanging fruit

- Genetic testing and pharmacogenomics
- Compounding

Genetic Testing & Pharmacogenomics

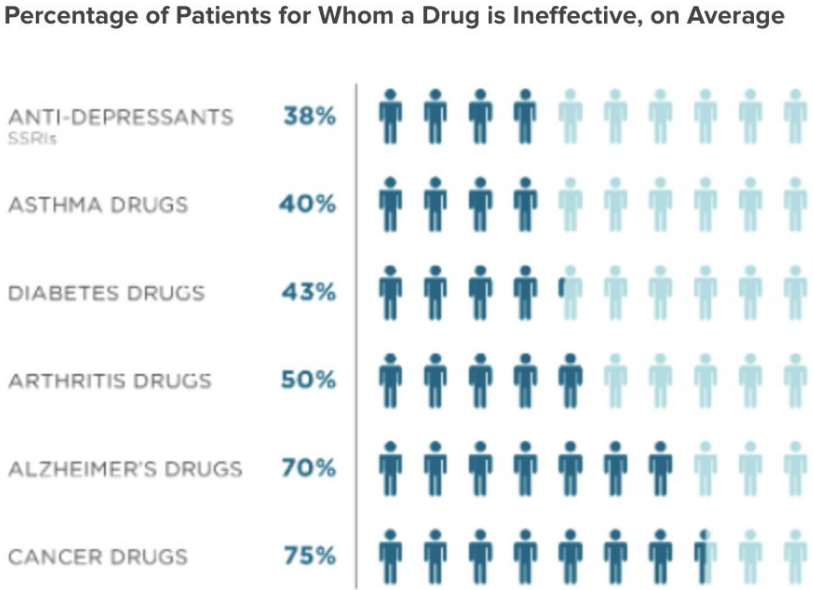
Increasing interest in genetics



26 million consumers have taken at home ancestry tests

Source: https://www.technologyreview.com/2019/02/11/103446/more-than-26-million-people-have-taken-an-at-home-ancestry-test/

Genetics impact on medications



260+ medications have information on how genes affect them in their drug labeling

Source: http://www.personalizedmedicinecoalition.org/Education/The_Basics, https://www.drugtopics.com/article/pharmacogenomics-and-future-pharmacy

Examples

Ancestry, 23andMe*

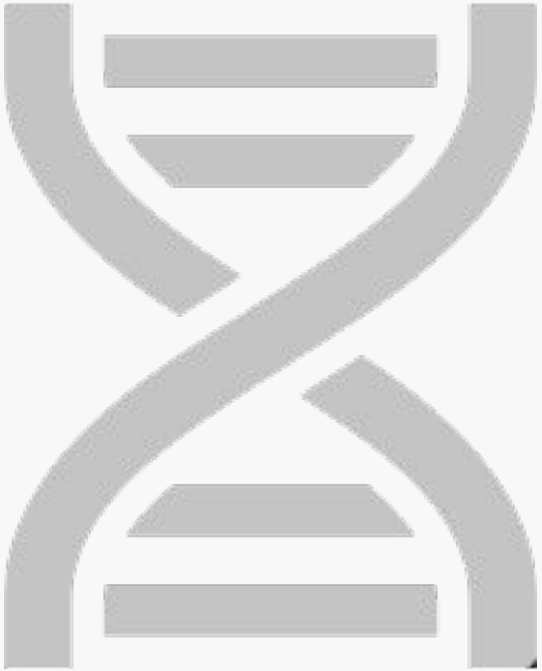
- DNA and ancestry data

FDA in-vitro diagnostic tests

- HIV & Cancer drugs are already using these services
- Other drug classes:
  - Antidepressants
  - Anticoagulants
  - Asthma, etc...

Why

- Pharmacists are perfectly placed to own the pharmacogenomics space
- Further strengthens pharmacist patient relationship
- No other healthcare providers have entered the space on this level

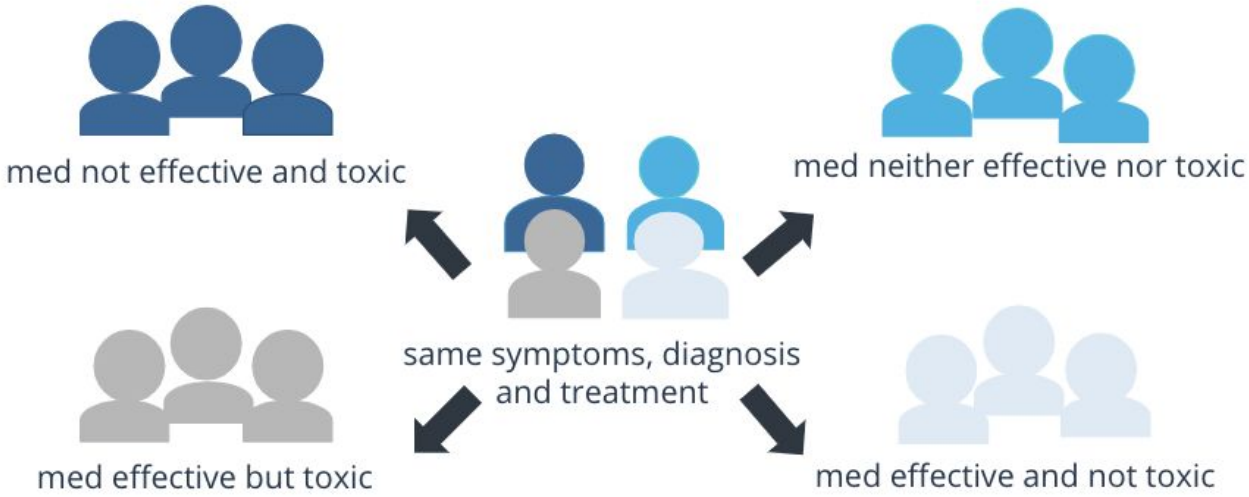


How

Pharmacist Dashboard
ADAM DOE
View Pending Prescription (North Pharmacy)
Allergies
Patient Profile
Prescriber Information
Patient History
LISINOPRIL 10 MG / HCTZ 12.5 MG (Rx 1418269)
TAKE 1 TABLET BY MOUTH EVERY DAY
ZOLPIDEM 5 MG (Rx 1418269)
TAKE ONE TABLET ONCE DAILY IMMEDIATELY BEFORE
ZOLOFT 50 MG (Rx 1418269)
TAKE 1 TABLET ONCE A DAY
ZOLOFT 50 MG (Rx 1418269)
TAKE 1 TABLET ONCE A DAY
Audit Logs
Kent Safrankski opened prescription.
TAKE 1 TABLET BY MOUTH DAILY
LISINOPRIL 10 MG / HCTZ 12.5 MG
NDC# 00025-1525-31 2 Refills
DR. WENDI BECK
QTY: 30.000 EA
BACK TO DASH
Require Consult
REJECT
APPROVE

Compounding

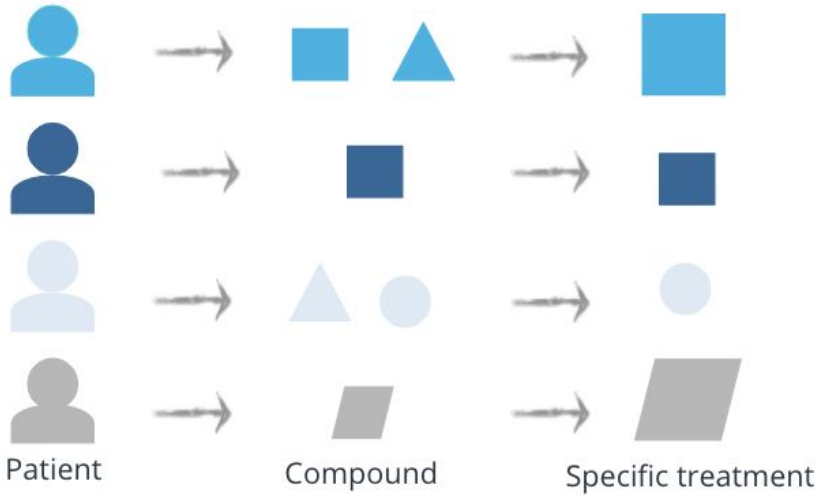
- Originally medicine started off as a “one size fits all”
- All patients may not be able to tolerate the commercially available drug
- Results in low adherence and/or complications



Examples

Traditional compounding

- Customizable strength or form
- Add flavoring
- Reformulate to exclude unwanted, non-essential ingredients



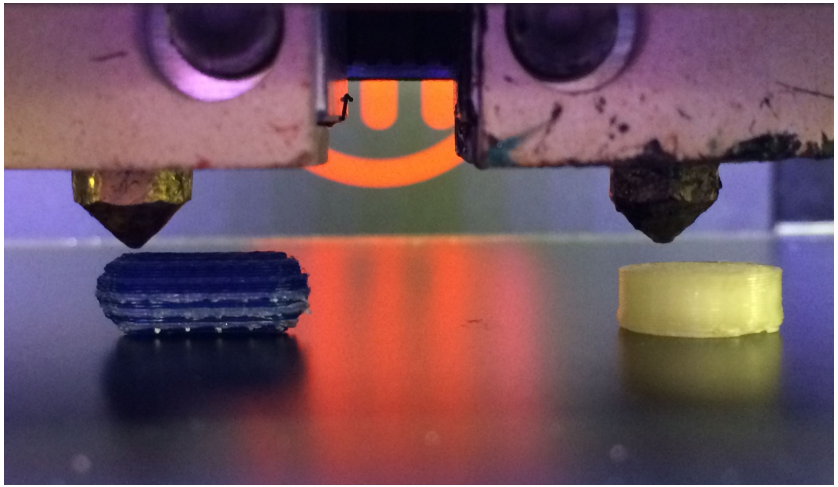
PolyPill

- Multiple medications into one pill
- Statins, blood pressure and ASA combo studies showed reduced risk vs placebo

Examples

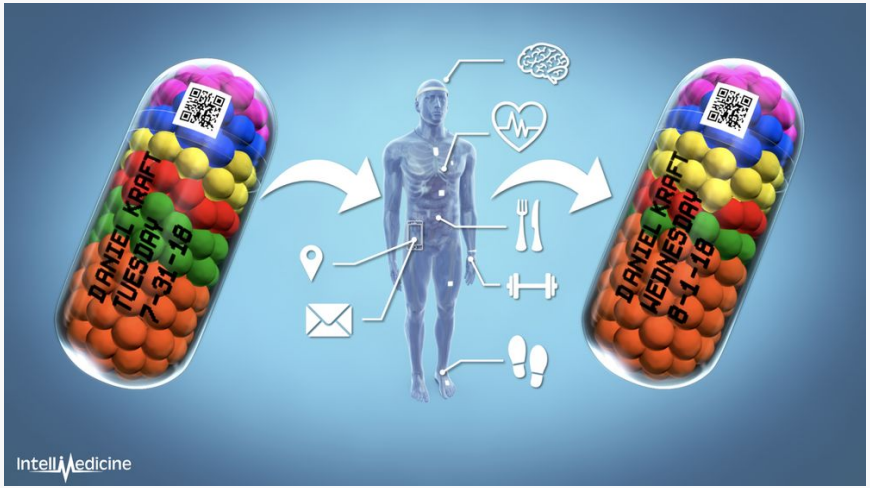
3D drug printing

- Polypills, including vitamins, that are customized for each patient



IntelliMedicine Printer

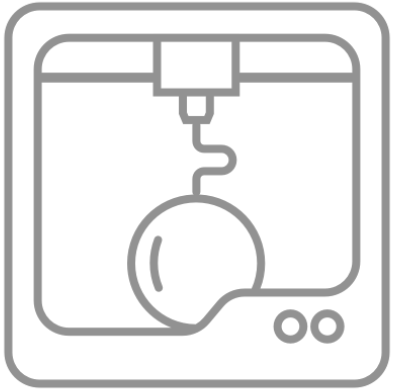
- 16 different silos each containing a micromed
- Dosing can be smartly adapted



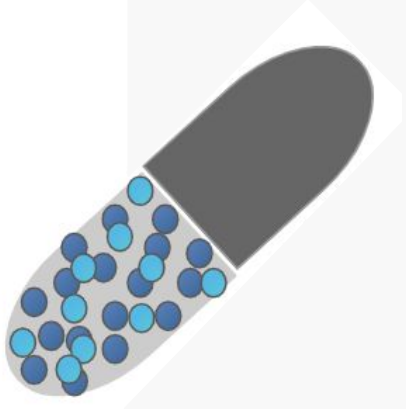
Source: https://www.intellimedicine.com/solution

How

patient labs



3D printer



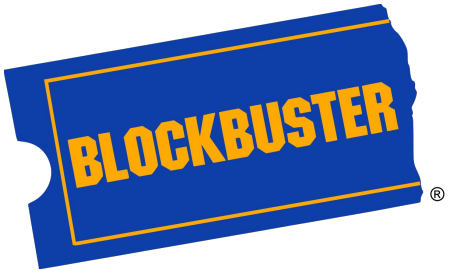
personalized capsule

What’s Next?

Examples

Kodak

Canon
40x
OPTICAL
ZOOM
SX720 HS


BLOCKBUSTER

NETFLIX

TAXI

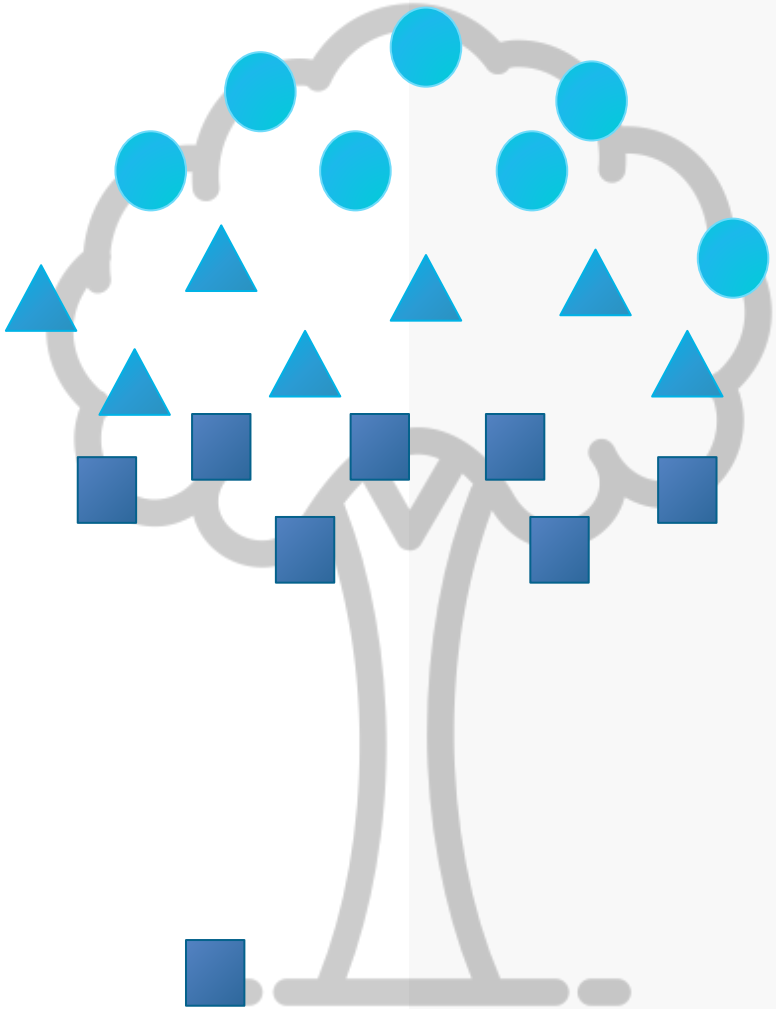
UBER

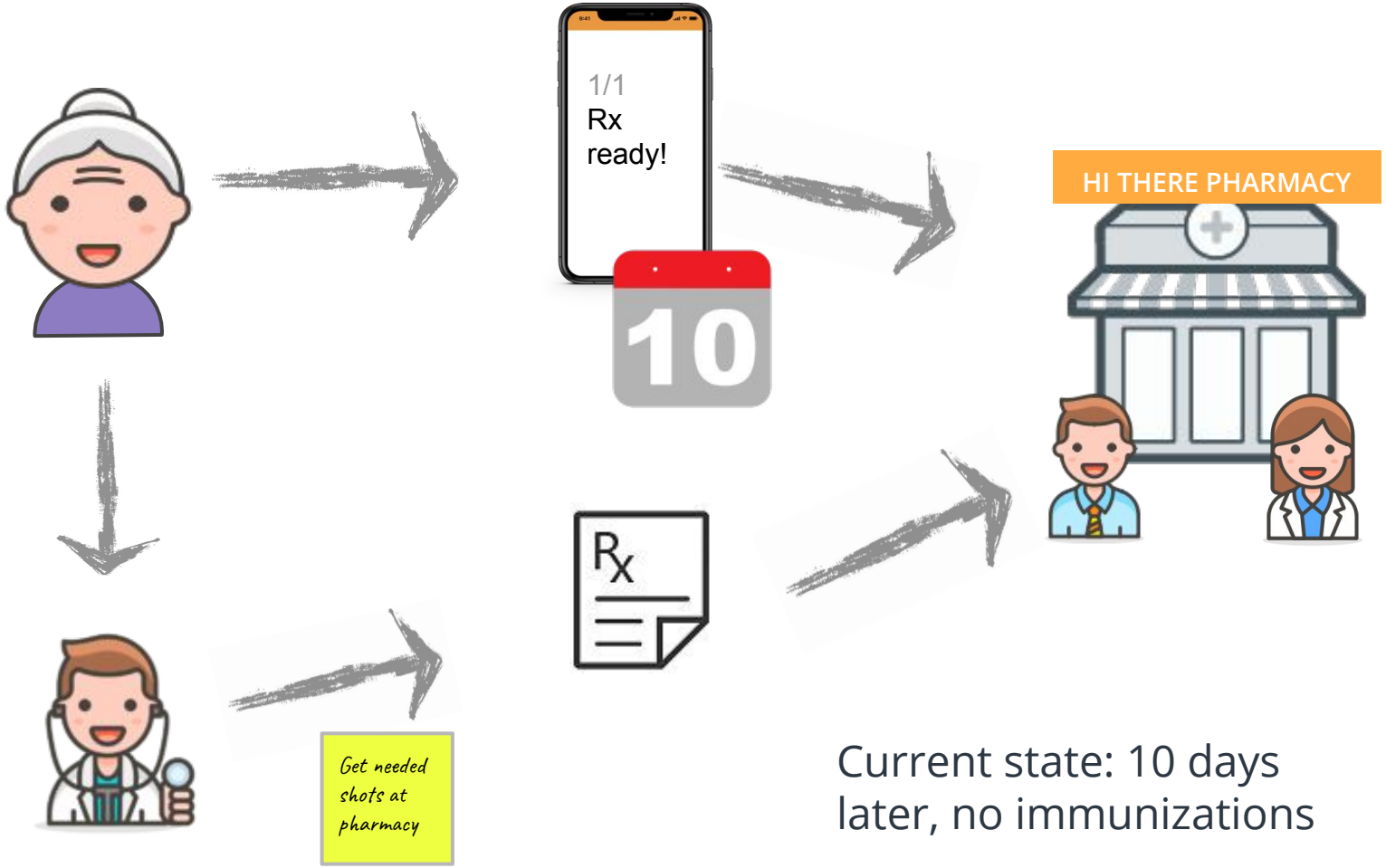
Innovate or Not

"The American icon (Kodak) had the talent, the money, and even the foresight to make the transition. Instead it ended up the victim of the aftershocks of a disruptive change. Learn the right lessons, and you can avoid its fate."

HBR.org

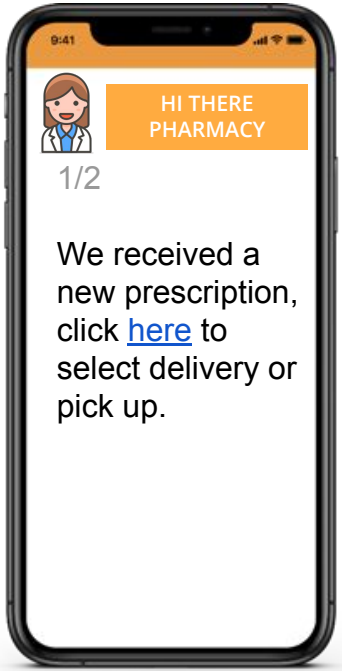
Innovate ~~or Not~~





Current state: 10 days later, no immunizations

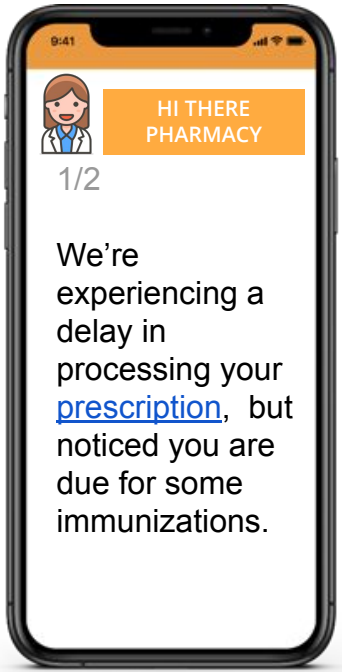
Get needed shots at pharmacy

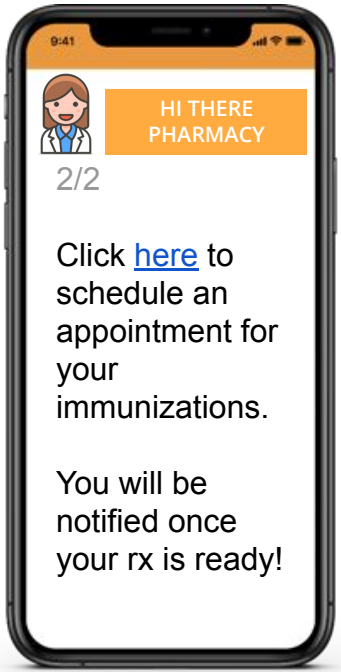

9:41
HI THERE PHARMACY
1/2
We received a new prescription, click here to select delivery or pick up.

HI THERE PHARMACY
Telepharmacy

HI THERE PHARMACY

Ideal state

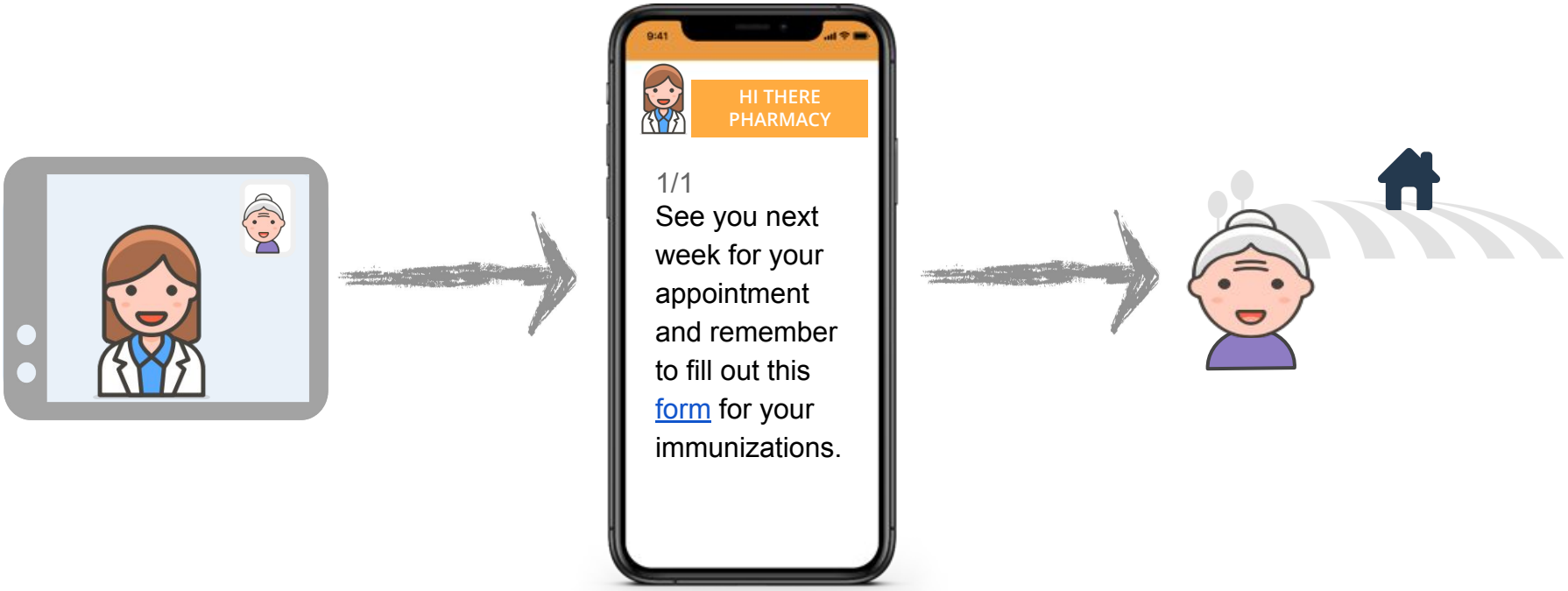

9:41
HI THERE PHARMACY
1/2
We're experiencing a delay in processing your prescription, but noticed you are due for some immunizations.


9:41
HI THERE PHARMACY
2/2
Click here to schedule an appointment for your immunizations.
You will be notified once your rx is ready!

2

9:41
HI THERE PHARMACY
1/1
Your prescription is ready!
See you soon!

Ideal state


9:41
HI THERE PHARMACY
1/1
See you next week for your appointment and remember to fill out this form for your immunizations.

Ideal state

Questions?

Mitch Larson
mitch.larson@telepharm.com

CE Question #1

What was the initial intended use for bubble wrap?

A. Insulation

B. Textured wallpaper

C. Cushioning for packages

D. Skydiving landing pads

CE Question #2

The average net income in pharmacies has steadily decreased over the last several years.

A. True

B. False

CE Question #3

Which of these are examples of creative deliver solutions you can implement for your pharmacy?

A. Storage lockers
B. Kiosks
C. Drone delivery
D. All of the above

CE Question #4

Which of the following is a free and effective way to communicate with your local community?

A. Social Media
B. Local TV commercials
C. Graffiti in public restrooms
D. Bus bench ads

CE Question #5

What is the retention rate for digital pharmacy platforms?

A. 12%

B. 82%

C. 79%

D. 99%

CE Question #6

According to the NIH, what percentage of a pharmacist's time is spent doing non-clinical tasks?

A. 20%

B. 40%

C. 60%

D. 80%

CE Question #7

Point-of-care testing is predicted to exceed immunizations as a driver of revenue.

A. True

B. False

CE Question #8

Telepharmacy allows:

A. Pharmacists to provide pharmacy services to underserved patient populations.

B. Pharmacies to operate low-volume pharmacies where the traditional model isn't feasible.

C. Workload balancing between multiple pharmacies to free up pharmacist time for clinical activities.

D. All of the above.

CE Question #9

Genetic testing allows for more specific formulation of medications based on an individual's genetic makeup.

A. True

B. False

CE Question #10

Blockbuster, Kodak, and the taxi industry are all good examples of innovating to meet the demands of the market.

A. True

B. False