

Primary Care in Community Pharmacies: Is the Time Here?

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United States Health Care System

- Patchwork of Fragmented Combinations of Private and Government-Funded programs
 - Majority—64% are enrolled in private health insurance programs
 - 33% are in Federal programs (Medicare, Medicaid, CHIP, U.S. Department of Defense Programs, or Veterans Health Administration)
- Health care Costs: 17.5% of GDP (\$3.0 Trillion/\$9,523/person)
- U.S. spends twice as much on Health care as any other nation!
 - U.S. is top consumer of sophisticated diagnostic imaging technology
 - U.S. is top consumer of prescription drugs (2.2 drugs/person/yr)

1. Economic Cooperation and Development Report 2013
2. <http://www.commonwealthfund.org/publications/issue-briefs/2015/oct/us-health-care-from-a-global-perspective>

2

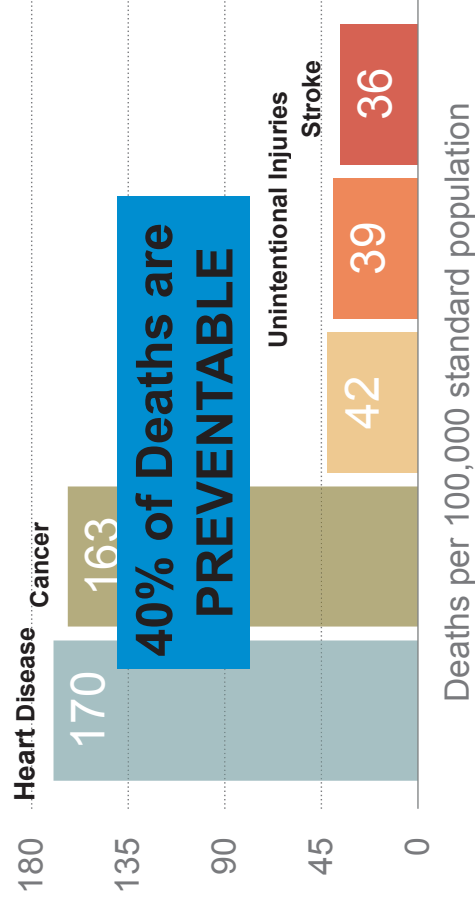
What Do We Get for Our Health Care Dollar?

- U.S. ranks 34th in Life Expectancy at Birth (78.8 vs 81.2 median)
- U.S. has the Highest Infant Mortality Rate (6.1/1000 vs 3.5/1000 median)
- U.S. has the Highest Prevalence of Chronic Disease (68% vs 33-56%)
- U.S. is the Most Obese Country (15% higher)
- U.S. has the Highest Mortality Rate from Ischemic Heart Disease (128 vs 95 per 100k population)
- Positive: U.S. has the Best Mortality Rate from Cancer

1. Economic Cooperation and Development Report 2013
2. <http://www.commonwealthfund.org/publications/issue-briefs/2015/oct/us-health-care-from-a-global-perspective>
3. Stevens W, et al. *Health Affairs* 2015;34:562-70

3

Top 5 Causes of Death in the United States



Mortality 2014.

4

ACCORDING TO THE CENTERS FOR DISEASE CONTROL (CDC)

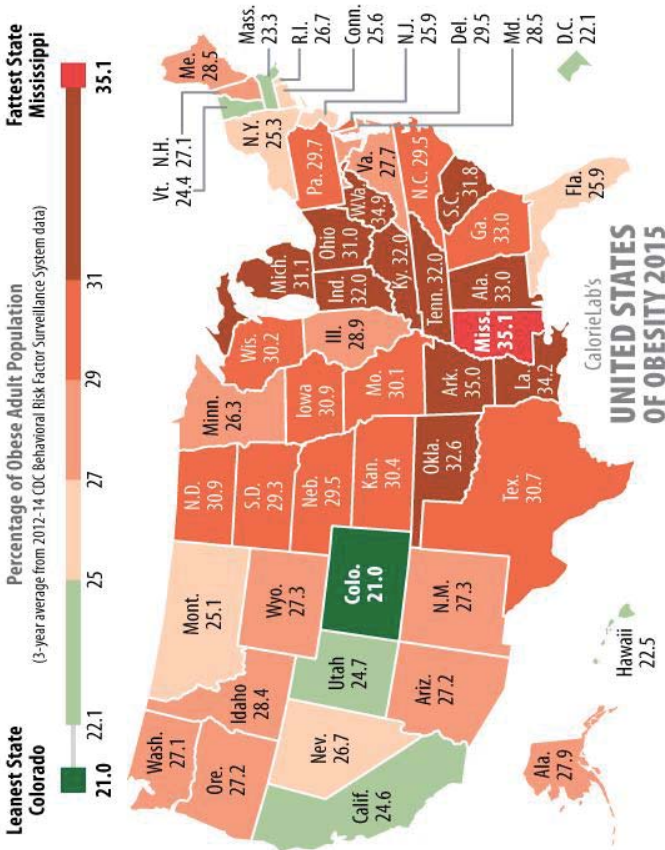
CDC Prevention Checklist

Preventive Care: Everyone needs an ounce of prevention.

WE COULD SAVE OVER
100,000
lives each year

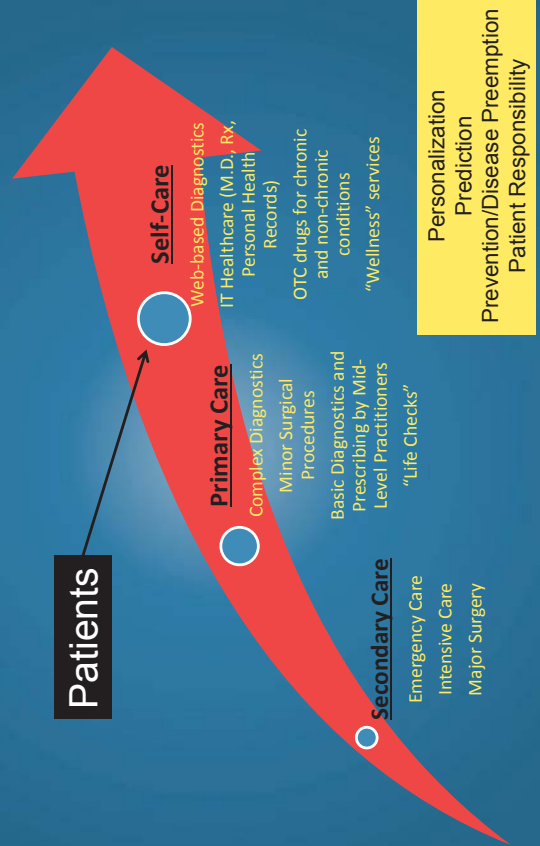
If everyone in the US received recommended
CLINICAL PREVENTIVE CARE

Centers for Disease Control Prevention Checklist.



<http://calorielab.com/news/wp-images/post-images/fattest-states-2015-big.jpg>

Healthcare Delivery in 2020 Closer to Patient



CDC PREVENTATIVE HEALTH CHECKLIST

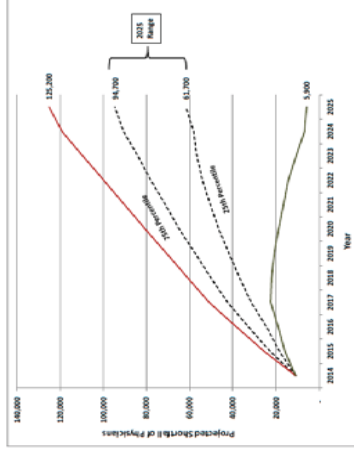
TESTS BLOOD PRESSURE DIABETES CHOLESTEROL	CANCELLED SCREENINGS MAMMOGRAM AND COLONOSCOPIES	INTERVENTION Quit smoking Lose weight Identify depression Reduce alcohol use Avoid sexually transmitted diseases	VACCINATIONS FLU, PNEUMONIA, MEASLES, POLIO, MENINGITIS AND OTHER DISEASES
STD SCREENINGS SEXUALLY TRANSMITTED INFECTIONS	REGULAR VISITS WELL-WOMEN, WELL-BABY, AND WELL-CHILD	CARE FOR HEALTHY PREGNANCIES	

Centers for Disease Control Prevention Checklist. <http://www.cdc.gov/prevention/>

Shortage of Primary Care Physicians

- By 2025: Shortage of 61,700-94,700 physicians
- Fewer physicians than most industrial countries and physician visits/person/year (4 vs. 6.5 median)
- Primary Care Physicians to account for approximately 1/3rd of the shortage
- Projections incorporate Physician Assistance growth that is accelerating faster than rate of demand for healthcare services

Proposed Total Physician Shortfall 2014-2025



IHS Services. *The Complexities of Physician Supply and Demand 2016 Update: Projections from 2014-2025.*
Economic Cooperation and Development Report 2013

9

Need for Community Pharmacy Transformation?

- **United States health care continues** undergoing tremendous transformation over access, quality, and cost
- The **pharmacy profession** has been overlooked in its potential to:
 - Be a cardinal touch-point for consumers to have **access** to the primary health care system
 - **Provide** Primary Care Services - particularly for those consumers in **rural and disadvantaged** circumstances

10

Funded by the Skaggs Foundation for Research – Family History of Pharmacy Transformation



- **“First Transformation” – 1900-1930s**
 - Samuel Skaggs Sr. – Development of cash-only grocery stores with large-lot buying power “Standard goods at the lowest possible cost”
 - Samuel Skaggs Jr. – 1932 First Self-Service Drug Store Pay-Less Drug (Tacoma, Washington)
- **“Second Transformation” -1940s-2014**
 - Pharm.D. entry-level degree developed at UCSF and USC (Education)
 - Sustained development of hospital pharmacy with clinical pharmacy services (Practice) - Limited clinical service expansion into retail practice
 - Sam Skaggs Jr. – Rapid expansion of pharmacy/retail business model across the United States
 - Bringing drug/pharmacy knowledge/health care services closer to families, neighborhoods including rural and disadvantaged persons.

11

An Audacious Goal

Third Transformation 2014-xxxx??

Community Pharmacy as Primary Care Clinics

12

OptiPharm Study

Research to Model the Demand for Primary Care Health Services in Community Pharmacies:

A Linked Discrete Choice Model of Consumer, Pharmacist, and Payer Preferences

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Background and Objectives

As more individuals gain access to healthcare, there is a need to ensure that care remains high quality, affordable, and centered upon the needs of patients and families.

This may require a shift in how, who and where services are provided, with pharmacies and pharmacists representing a potential resource for some primary care services.

Research Objectives

The primary objective of the research is to model the demand for a range of primary care services to be delivered through pharmacies.

The ultimate output of this quantitative research will be the “optimal” pharmacy configuration that maximizes demand for both Consumers and Pharmacists, and likelihood of reimbursement by payers.

Predictive Modeling Research

- **Model** the perspectives of three key constituencies who will shape the access to, the nature of, and demand for, pharmacy delivered primary care services
- **Consumers:** What would they like to see in future pharmacy services, and what is their **demand** for potential new service options?
- **Pharmacists:** What is their openness to new service models, their **barriers and opportunities** to change?
- **Payers:** What elements will payers **reimburse and cover the costs** of?



Methodology

Three surveys of key stakeholders:

- ~**10,000** consumers of pharmacy services, aged 18+ screened to be representative of the US population
- ~**300** community pharmacists: Who work at least 20 hours during a typical week and do not work at a Hospital, Closed-Door or Mail-order Pharmacy
- ~**50** payer reimbursement decision-makers across a mix of plans, who are involved coverage and reimbursement policies and/or protocols for primary health care services

Conduct a **Discrete Choice Experiment (DCE)**

- Get consumers and pharmacists to **choose** their preferred pharmacies to use or work in
- Model and simulate the “**optimum pharmacy**” for each constituency
- Validate the optimal pharmacy with payers in terms of **likelihood to reimburse**

What would Consumers Want in Pharmacy-centric Primary Healthcare System?

- In the absence of negative aspects, who wouldn't want universal access to every service possible (at world class delivery) at little or no cost
- If asked directly (e.g., using importance ratings) everything becomes stated as important/desirable, even if it wouldn't actually drive use of services
- Need to have consumers 'trade-off' between service elements
- Pharmacists 'trade-off' what they would be willing to provide
- Payers then indicate their likelihood to reimburse those services



17

Quantitative Research Design – Respondents

Complete* survey data available for online surveys of :

- **9,202 adult (18+)** **Consumers** in the US screened to approximate the US adult population (\geq 18 years old); Filled at least 3 or more prescriptions at a pharmacy in the past 12 months; Do not have VA / CHAMPUS or TRICARE insurance; Do not receive care through Kaiser, Kaiser Permanente, the Permanente, or the Permanente Medical Group
- **291 community pharmacists** in the US screened to have bachelor's degree or Pharm.D. from an Accredited School of Pharmacy in the US; Work at least 20 hours during a typical week; Work in 1 or 2 pharmacy settings during a typical week; Do not work at a Hospital, Closed-Door or Mail-order Pharmacy
- **50 Payer reimbursement decision-makers** in the US screened to: Do not work at a VA / CHAMPUS or TRICARE insurance organizations; moderately or heavily involved either in an advisory or leadership role in decision-making within the organization regarding the coverage and reimbursement policies and/or protocols for various types and locations of primary health care services (at least 4 out of 9 options; Not currently a Director of Claims (job title); At least 3 years experience in current or similar position; organization offers Commercial plans and/or Medicare Part D plans

* After cleaning to remove nonsensical responses from 10,006 initial consumer surveys, 312 pharmacists and 56 payers

18

Consumer Sample (N=9,202) is Diverse and Representative of the United States 2010 Census

Across key demographics:

- 18% Aged 65 or older
- 12% Hispanic origin
- 11% African American
- 19% Rural
- 5% Uninsured
- 15% Living in poverty
- 24% with Family Income of < \$25,000; 30% < \$50,000
- Regionally Diverse: Northeast (19%), Midwest (25%) South (39%) and West (18%)

19

Pharmacists (N=291) and Payers (N=50) Varied

Pharmacist key demographics:

- 40% Female
- 53% Baccalaureate; 47% Pharm.D.
- 14% Rural; 34% small town; 30% suburban; 22% large city
- 19% <10 years in practice; 32% 10-20 years
- 20% <40 hrs/week; 43% @40 hrs; 27% >40hrs

Reimbursement decision-makers:

- Mix of Commercial and/or Medicare Part D plans
- Mix of Medical Officers, Pharmacy Directors and C-suite executives
- Mean 12 years experience
- Mean covered lives 5.55M

20

Current Pharmacy Satisfaction is High – What if?

Overall, most Consumers are satisfied with current pharmacies, but there is potential for additional services.

- Currently, only a few “advanced” services are offered including:
 - Extended hours
 - Telephone and/or internet ordering
 - Vaccines / immunizations
 - Meeting with pharmacists to review medications
 - Medication refill reminders
- However, not all Consumers have access to these services

Even what is considered a “Base” Pharmacy, offering minimal services, draws interest from some Consumers.

- Suggests that not all Consumers are offered some of the “advanced” features potentially available and they find these features appealing

21

Results Contrasted with a “Base” Pharmacy Offering Minimal services

Pharmacy Attributes	Level of Service
Hours of operation	9AM to 9PM, restricted hours Sundays (limited weekend hours)
Prescription ordering, availability and information	Telephone or online internet ordering, and two way discussion with pharmacist (telephone or online)
Service Provider	Pharmacist (with physician oversight)
Medical Records	Prescription records only held at the pharmacy and not put into your (the patient's) medical record
Service Logistics	(Patients) Walk in and wait for services
Pharmacy Provides: Physical Examinations	Not provided
Pharmacy Provides: Diagnostic Testing	Not provided
Pharmacy Provides: Preventive Services	(Only) Vaccinations / Immunizations
Pharmacy Provides: Drug Prescribing	Drug prescribing at pharmacy not available
Pharmacy Provides: Medication Services	Meeting with pharmacist to discuss new prescriptions. Medication refill reminders (e.g., by phone, text or internet)
Cost of Services to Consumer	\$0

22

Pharmacy and Healthcare Services Systematically Varied in the DCE

Attributes were selected based on a thorough review of the literature, interviews with University of Utah College of Pharmacy faculty, community pharmacy leaders, and recently published qualitative research with consumers, pharmacists and reimbursement decision makers.

- **Munger** MA, Durante R, Ranker L, **Feehan** M. Integrating Community Pharmacies into United States Primary Care Delivery: A Qualitative Assessment of Consumer, Pharmacist and Payer Views. Inside Primary Care. 2016;4(4):13-20.
 - <http://www.insidepatientcare.com/categories/77-inside-primary-care>
- **Feehan** M, Durante R, **Ruble** J, **Munger** M. Qualitative Interviews about Pharmacist Prescribing in the Community Setting. American Journal of Health-System Pharmacy. 2016;73(18):1456-61.

23

DCE Attributes and Levels

Pharmacy Attributes	Level of Service
Hours of operation	9AM to 5PM, closed Sundays (limited weekend hours) 9AM to 9PM, restricted hours Sundays (limited weekend hours) 24 hours/7 days a week
Prescription ordering, availability and information	Telephone or online internet ordering only Telephone or online internet ordering, and two way discussion with pharmacist (telephone or online)
Service Provider	Pharmacist (with physician oversight) Nurse Practitioner or Physician Assistant (with physician oversight)
Medical Records	Prescription records only held at the pharmacy and not put into your (the patient's) medical record The pharmacy has access to and can enter prescriptions and health information into your (the patient's) electronic medical record

24

DCE Attributes and Levels (cont.)

Pharmacy Attributes	Level of Service
Service Logistics	(Patients) Walk in and wait for services
	(Patients) Walk in and wait for service or make an appointment (via telephone or online)
Pharmacy Provides: Physical Examinations	Not provided
	Blood Pressure, Heart Rate, and Breathing Rate
	Blood Pressure, Heart Rate, and Breathing Rate, and Physical examinations provided to assess patients' complaints (e.g., Pain, Allergy, Skin or Ear/Eye Examinations)
	Full head-to-toe physical examination (e.g., for diagnosis, general physicals, employment or sport physicals)

25

DCE Attributes and Levels (cont.)

Pharmacy Attributes	Level of Service
Pharmacy Provides: Diagnostic Testing	Not provided
	Blood Sugar (Diabetes) and Cholesterol measurement
Pharmacy Provides: Preventive Services	Diabetes and Lipid/Cholesterol measurements plus testing for common infections including influenza, hepatitis, tuberculosis and HIV
	Diabetes and Lipid/Cholesterol measurements plus testing for common infections including influenza, hepatitis, tuberculosis, and HIV and conducting chemistry, urine, saliva, and other blood tests
Pharmacy Provides: Drug Prescribing	(Only) Vaccinations / Immunizations
	Vaccinations / Immunizations and health screening (e.g., mental health, lung function)
Pharmacy Provides: Drug Prescribing	Drug prescribing at pharmacy not available
	Drugs prescribed at the pharmacy by [insert same provider as above]

26

DCE Attributes and Levels (cont.)

Pharmacy Attributes	Level of Service
Pharmacy Provides: Medication Services	Medication refill reminders (e.g., by phone, text or internet)
	Meeting with pharmacist to discuss new prescriptions, Medication refill reminders (e.g., by phone, text or internet) Meeting with pharmacist to discuss all your medications, disease and health, Medication refill reminders (e.g., by phone, text or internet)
Workload (shown in Pharmacist Survey only)	Limited or no dedicated pharmacist time for provision of these services
	Dedicated pharmacist time for provision of these services, with reduction in dispensing
Continuing Pharmacist Education for Provision of Assessment, Diagnostic and Treatment Services (shown in Pharmacist Survey only)	On the job exposure following pharmacy service policy and procedure training
	Pharmacy service continuing education and policy and procedure training
	Disease State Certification Program (extended hours) and policy and procedure training

27

DCE Attributes and Levels (cont.)

Pharmacy Attributes	Level of Service
Cost of Services to Consumer (shown in Consumer Survey only)	\$0
	\$15
	\$30
	\$45
	\$60
	\$75
Pharmacist Income (shown in Pharmacist Survey only)	-10.0%
	-5.0%
	0.0%
	5.0%
	10.0%

28

Consumer: Choice Task Example

Screen 1 of 14

Pharmacy 1	Pharmacy 2
Hours of operation 9AM to 9PM, restricted hours Sundays Prescription ordering, availability and information Telephone or online internet ordering, and two way discussion with pharmacist (telephone or online) Service Provider Pharmacist (with physician oversight) Medical Records The pharmacy has access to and can enter prescriptions and health information into your (the patient's) electronic medical record Service Logistics (Patients) Walk in and wait for service or make an appointment (via telephone or online) The Pharmacy Provides: Physical Examinations Blood Pressure, Heart Rate, and Breathing Rate The Pharmacy Provides: Diagnostic Testing Diabetes and Lipid/Cholesterol measurements plus testing for common infections including influenza, hepatitis, tuberculosis, and HIV and conducting chemistry, urine, saliva, and other blood tests The Pharmacy Provides: Preventive Services Vaccinations / Immunizations and health screening (e.g., mental health, lung function) The Pharmacy Provides: Drug Prescribing Drugs prescribed at the pharmacy by provider The Pharmacy Provides: Medication Services Meeting with pharmacist to discuss new prescriptions, Medication refill reminders (e.g., by phone, text or internet)	9AM to 9PM, closed Sundays Telephone or online internet ordering only Pharmacist (with physician oversight) The pharmacy has access to and can enter prescriptions and health information into your electronic medical record Walk in and wait for services Not provided Drugs prescribed at the pharmacy by Pharmacist (with physician oversight) Services described above covered by your insurance with an additional copay (drug not included) with no out-of-pocket cost
Cost of Services Pharmacy 1 is MOST likely to use	Pharmacy 2

What rate (on the grid) do you think the pharmacy you gave you would be most likely to use in appealing. Use a 1-to-10 scale where '1' means "Not at all likely" and "10" means "Extremely likely".

Please think only of the appeal of the pharmacy you selected, regardless of the other pharmacy option.

Appeal of selected pharmacy: 1 2 3 4 5 6 7 8 9 10

Rate you think you would be most likely to use to switch to this pharmacy in place of your current pharmacy? Use a 1-to-5 scale where '1' means "Not at all likely" and '5' means "Extremely likely."

Switch rate to this pharmacy: 1 2 3 4 5

Switch rate to your current pharmacy: 1 2 3 4 5

Continue

29

Consumer Model: Demand Doubles!

The demand for this optimal model was 2-fold higher than for the services provided by the base pharmacy.

A quarter would switch to the new pharmacy over the base

- 25.5 vs. 12.6 (95% BPI 23.5-27.0).

The demand for these service offerings was highest among minority groups which may have poorer access to quality primary health care including:

- Hispanic Origin (switch rate of 30.6%; 95% BPI: 25.7-34.3)
- African-American (switch rate of 30.7%; 95% BPI: 27.1-35.2).

Demand was higher for those in rural settings

- Switch rate of 22.6% (95% BPI: 14.6-29.6) vs. non rural 19.9 (95% BPI: 14.8-24.6)

31

Consumer Demand: The Future "Optimal" Pharmacy

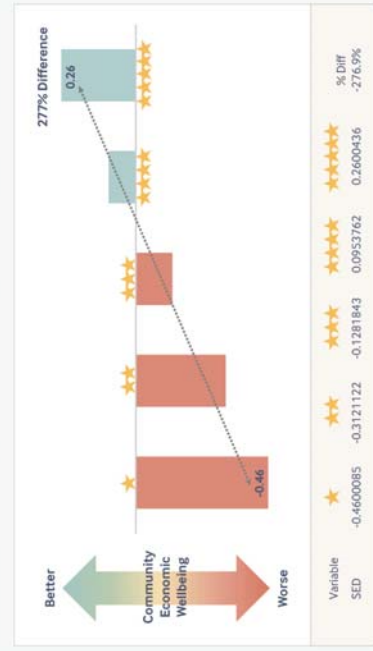
- Same as "Base"
- Advancement from "Base"

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Service Logistics	(Patients) Walk in and wait for service or make an appointment (via telephone or online)
Pharmacy Provides: Physical Examinations	Blood Pressure, Heart Rate, and Breathing Rate
Pharmacy Provides: Diagnostic Testing	Diabetes and Lipid/Cholesterol measurements plus testing for common infections including influenza, hepatitis, tuberculosis, and HIV and conducting chemistry, urine, saliva, and other blood tests
Pharmacy Provides: Preventive Services	Vaccinations / Immunizations and health screening (e.g., mental health, lung function)
Pharmacy Provides: Drug Prescribing	Drugs prescribed at the pharmacy by provider
Pharmacy Provides: Medication Services	Meeting with pharmacist to discuss new prescriptions, Medication refill reminders (e.g., by phone, text or internet)
Cost of Services	\$15

30

Socioeconomic Implications of Consumer "Optimal Pharmacy"

CMS Star Ratings by the Socioeconomic Wellbeing of U.S. Hospitals' Home ZIP Code (n = 4,336)



Source: CMS-supplied July 2016 Hospital Overall Quality Star Rating SAS Packs and 2015 Nielsen-Claritas PopFacts Premier.

NEJM Catalyst Catalyst.nejm.org © Massachusetts Medical Society

32

Pharmacist: Choice Task Example

Area of Observation	What is Done, Measured or Observed	What the Data Tells Us About Performance
Professionalism and Interpersonal Skills	Professionalism and interpersonal skills are observed through the pharmacist's interactions with patients, colleagues, and other healthcare professionals.	Pharmacists who demonstrate high levels of professionalism and interpersonal skills are more likely to be successful in their roles.
Business Practices	Business practices are observed through the pharmacist's management of the pharmacy's financial and operational aspects.	Pharmacists who demonstrate strong business practices are more likely to be successful in their roles.
Business Logistics	Business logistics are observed through the pharmacist's management of the pharmacy's supply chain and inventory.	Pharmacists who demonstrate strong business logistics skills are more likely to be successful in their roles.
The Pharmacy's Performance	The pharmacy's performance is observed through the pharmacist's management of the pharmacy's overall operations.	Pharmacists who demonstrate strong pharmacy performance skills are more likely to be successful in their roles.
The Pharmacist's Knowledge	The pharmacist's knowledge is observed through the pharmacist's ability to provide accurate and timely information to patients and colleagues.	Pharmacists who demonstrate strong knowledge skills are more likely to be successful in their roles.
The Pharmacist's Attitude	The pharmacist's attitude is observed through the pharmacist's ability to maintain a positive and professional demeanor at all times.	Pharmacists who demonstrate strong attitude skills are more likely to be successful in their roles.
The Pharmacist's Communication Skills	The pharmacist's communication skills are observed through the pharmacist's ability to communicate effectively with patients and colleagues.	Pharmacists who demonstrate strong communication skills are more likely to be successful in their roles.
Pharmacist's Work Ethic	Pharmacist's work ethic is observed through the pharmacist's ability to work hard and efficiently.	Pharmacists who demonstrate strong work ethic skills are more likely to be successful in their roles.
Pharmacist's Customer Service	Pharmacist's customer service is observed through the pharmacist's ability to provide excellent customer service to patients.	Pharmacists who demonstrate strong customer service skills are more likely to be successful in their roles.
Pharmacist's Teamwork	Pharmacist's teamwork is observed through the pharmacist's ability to work well with others on a team.	Pharmacists who demonstrate strong teamwork skills are more likely to be successful in their roles.
Pharmacist's Problem Solving	Pharmacist's problem solving is observed through the pharmacist's ability to identify and solve problems.	Pharmacists who demonstrate strong problem solving skills are more likely to be successful in their roles.
Pharmacist's Leadership	Pharmacist's leadership is observed through the pharmacist's ability to lead and inspire others.	Pharmacists who demonstrate strong leadership skills are more likely to be successful in their roles.
Pharmacist's Innovation	Pharmacist's innovation is observed through the pharmacist's ability to think creatively and come up with new ideas.	Pharmacists who demonstrate strong innovation skills are more likely to be successful in their roles.
Pharmacist's Adaptability	Pharmacist's adaptability is observed through the pharmacist's ability to adjust to changing circumstances.	Pharmacists who demonstrate strong adaptability skills are more likely to be successful in their roles.
Pharmacist's Resilience	Pharmacist's resilience is observed through the pharmacist's ability to bounce back from setbacks.	Pharmacists who demonstrate strong resilience skills are more likely to be successful in their roles.
Pharmacist's Stress Management	Pharmacist's stress management is observed through the pharmacist's ability to manage stress effectively.	Pharmacists who demonstrate strong stress management skills are more likely to be successful in their roles.
Pharmacist's Time Management	Pharmacist's time management is observed through the pharmacist's ability to use time efficiently.	Pharmacists who demonstrate strong time management skills are more likely to be successful in their roles.
Pharmacist's Organization	Pharmacist's organization is observed through the pharmacist's ability to keep things in order.	Pharmacists who demonstrate strong organization skills are more likely to be successful in their roles.
Pharmacist's Attention to Detail	Pharmacist's attention to detail is observed through the pharmacist's ability to catch errors and ensure accuracy.	Pharmacists who demonstrate strong attention to detail skills are more likely to be successful in their roles.
Pharmacist's Quality Control	Pharmacist's quality control is observed through the pharmacist's ability to ensure that all work is done to the highest standards.	Pharmacists who demonstrate strong quality control skills are more likely to be successful in their roles.
Pharmacist's Safety	Pharmacist's safety is observed through the pharmacist's ability to ensure that all work is done in a safe and secure manner.	Pharmacists who demonstrate strong safety skills are more likely to be successful in their roles.
Pharmacist's Compliance	Pharmacist's compliance is observed through the pharmacist's ability to ensure that all work is done in accordance with all applicable laws and regulations.	Pharmacists who demonstrate strong compliance skills are more likely to be successful in their roles.
Pharmacist's Ethics	Pharmacist's ethics is observed through the pharmacist's ability to act with integrity and honesty.	Pharmacists who demonstrate strong ethics skills are more likely to be successful in their roles.
Pharmacist's Integrity	Pharmacist's integrity is observed through the pharmacist's ability to be honest and truthful.	Pharmacists who demonstrate strong integrity skills are more likely to be successful in their roles.
Pharmacist's Honesty	Pharmacist's honesty is observed through the pharmacist's ability to tell the truth and admit mistakes.	Pharmacists who demonstrate strong honesty skills are more likely to be successful in their roles.
Pharmacist's Accountability	Pharmacist's accountability is observed through the pharmacist's ability to take responsibility for their actions.	Pharmacists who demonstrate strong accountability skills are more likely to be successful in their roles.
Pharmacist's Responsibility	Pharmacist's responsibility is observed through the pharmacist's ability to be reliable and trustworthy.	Pharmacists who demonstrate strong responsibility skills are more likely to be successful in their roles.
Pharmacist's Dependability	Pharmacist's dependability is observed through the pharmacist's ability to be counted on to get the job done.	Pharmacists who demonstrate strong dependability skills are more likely to be successful in their roles.
Pharmacist's Reliability	Pharmacist's reliability is observed through the pharmacist's ability to consistently deliver high-quality work.	Pharmacists who demonstrate strong reliability skills are more likely to be successful in their roles.
Pharmacist's Consistency	Pharmacist's consistency is observed through the pharmacist's ability to maintain a high level of performance over time.	Pharmacists who demonstrate strong consistency skills are more likely to be successful in their roles.
Pharmacist's Stability	Pharmacist's stability is observed through the pharmacist's ability to remain calm and composed under pressure.	Pharmacists who demonstrate strong stability skills are more likely to be successful in their roles.
Pharmacist's Composure	Pharmacist's composure is observed through the pharmacist's ability to remain calm and collected in difficult situations.	Pharmacists who demonstrate strong composure skills are more likely to be successful in their roles.
Pharmacist's Calmness	Pharmacist's calmness is observed through the pharmacist's ability to remain relaxed and at ease.	Pharmacists who demonstrate strong calmness skills are more likely to be successful in their roles.
Pharmacist's Patience	Pharmacist's patience is observed through the pharmacist's ability to wait for others without getting frustrated.	Pharmacists who demonstrate strong patience skills are more likely to be successful in their roles.
Pharmacist's Tolerance	Pharmacist's tolerance is observed through the pharmacist's ability to accept and understand differences.	Pharmacists who demonstrate strong tolerance skills are more likely to be successful in their roles.
Pharmacist's Understanding	Pharmacist's understanding is observed through the pharmacist's ability to empathize with others.	Pharmacists who demonstrate strong understanding skills are more likely to be successful in their roles.
Pharmacist's Empathy	Pharmacist's empathy is observed through the pharmacist's ability to understand and share the feelings of others.	Pharmacists who demonstrate strong empathy skills are more likely to be successful in their roles.
Pharmacist's Compassion	Pharmacist's compassion is observed through the pharmacist's ability to show kindness and concern for others.	Pharmacists who demonstrate strong compassion skills are more likely to be successful in their roles.
Pharmacist's Kindness	Pharmacist's kindness is observed through the pharmacist's ability to be gentle and considerate.	Pharmacists who demonstrate strong kindness skills are more likely to be successful in their roles.
Pharmacist's Consideration	Pharmacist's consideration is observed through the pharmacist's ability to think about the needs and feelings of others.	Pharmacists who demonstrate strong consideration skills are more likely to be successful in their roles.
Pharmacist's Thoughtfulness	Pharmacist's thoughtfulness is observed through the pharmacist's ability to think carefully about their actions.	Pharmacists who demonstrate strong thoughtfulness skills are more likely to be successful in their roles.
Pharmacist's Carefulness	Pharmacist's carefulness is observed through the pharmacist's ability to be cautious and attentive.	Pharmacists who demonstrate strong carefulness skills are more likely to be successful in their roles.
Pharmacist's Attention	Pharmacist's attention is observed through the pharmacist's ability to focus on the task at hand.	Pharmacists who demonstrate strong attention skills are more likely to be successful in their roles.
Pharmacist's Concentration	Pharmacist's concentration is observed through the pharmacist's ability to stay focused on a single task.	Pharmacists who demonstrate strong concentration skills are more likely to be successful in their roles.
Pharmacist's Focus	Pharmacist's focus is observed through the pharmacist's ability to concentrate on the most important aspects of a task.	Pharmacists who demonstrate strong focus skills are more likely to be successful in their roles.
Pharmacist's Determination	Pharmacist's determination is observed through the pharmacist's ability to persevere in the face of adversity.	Pharmacists who demonstrate strong determination skills are more likely to be successful in their roles.
Pharmacist's Persistence	Pharmacist's persistence is observed through the pharmacist's ability to keep going when things get tough.	Pharmacists who demonstrate strong persistence skills are more likely to be successful in their roles.
Pharmacist's Perseverance	Pharmacist's perseverance is observed through the pharmacist's ability to continue to work hard despite setbacks.	Pharmacists who demonstrate strong perseverance skills are more likely to be successful in their roles.
Pharmacist's Endurance	Pharmacist's endurance is observed through the pharmacist's ability to keep going for long periods of time.	Pharmacists who demonstrate strong endurance skills are more likely to be successful in their roles.
Pharmacist's Stamina	Pharmacist's stamina is observed through the pharmacist's ability to maintain energy and focus throughout the day.	Pharmacists who demonstrate strong stamina skills are more likely to be successful in their roles.
Pharmacist's Energy	Pharmacist's energy is observed through the pharmacist's ability to be enthusiastic and motivated.	Pharmacists who demonstrate strong energy skills are more likely to be successful in their roles.
Pharmacist's Enthusiasm	Pharmacist's enthusiasm is observed through the pharmacist's ability to be excited and passionate about their work.	Pharmacists who demonstrate strong enthusiasm skills are more likely to be successful in their roles.
Pharmacist's Motivation	Pharmacist's motivation is observed through the pharmacist's ability to be driven to succeed.	Pharmacists who demonstrate strong motivation skills are more likely to be successful in their roles.
Pharmacist's Drive	Pharmacist's drive is observed through the pharmacist's ability to set and achieve goals.	Pharmacists who demonstrate strong drive skills are more likely to be successful in their roles.
Pharmacist's Ambition	Pharmacist's ambition is observed through the pharmacist's ability to strive for excellence.	Pharmacists who demonstrate strong ambition skills are more likely to be successful in their roles.
Pharmacist's Aspiration	Pharmacist's aspiration is observed through the pharmacist's ability to have high goals and dreams.	Pharmacists who demonstrate strong aspiration skills are more likely to be successful in their roles.
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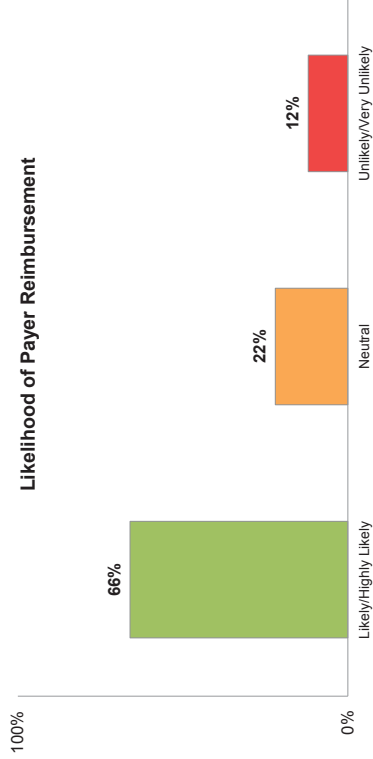
Pharmacist Model: 4-Fold Switch of Employer

A separate model for of the 291 pharmacists, provided an optimal pharmacy for employment that offered:

- The pharmacy has access to and can enter prescriptions and health information into the patient's electronic medical record
- Some level of physical examinations (Blood Pressure, Heart Rate, and Breathing Rate)
- Some level of point of care diagnostics (Diabetes and Lipid/Cholesterol measurements plus testing for common infections including influenza, hepatitis, tuberculosis and HIV)
- Prescribing by Pharmacists
- Dedicated pharmacist time for provision of these services, w/ reduction in dispensing
- 10% increase in income

Only **4.9%** likelihood of switching to the "base" pharmacy; **20.3%** likelihood to switch to the above pharmacy.

Payers Likely to Reimburse the Consumer Optimum Model



Consumer and Pharmacist POV Snapshot: The Future "Optimal" Pharmacy

The future "Optimal" pharmacy will have advanced testing and exam services, but not to the highest level possible.

- Both groups are interested in advanced diagnostic testing for common infections and other blood tests
- However, both Consumers and Pharmacists indicate resistance to having physical exams performed at the pharmacy
 - Suggests that this is a level of service that will still be reserved for physicians' offices, hospitals, clinics, etc.

Medication prescribing will be available in the future pharmacy.

- Consumers' desire this feature and Pharmacists also indicate a willingness to take on prescribing responsibilities

Technology will also be better leveraged in the future pharmacy.

- Having Consumers' electronic medical records available to the pharmacy suggest an integration of technology between the pharmacy and physicians' offices

Financial considerations will impact the future pharmacy.

- Consumers are willing to pay \$15 for the advanced services
- Pharmacists will be looking for a 10% increase in income and dedicated to time to perform these advanced services

Incorporation into Medical Home Model

Goal: To build a network of Community Pharmacy Primary Care Clinics based on a patient-centered, evidence-based, and value driven sustainable/transferable model to function within the Medical Home Model.

- Planned Coordination of Chronic and Preventative Care
- Patient Continuity of Care (with Primary Care Medical Provider oversight)
- Coordinated Care Across the Medical Neighborhood with the Primary Care Medical Provider; and
- Shared Decision Making using CEHRT (Certified HER)

37

Next Step – Demonstration Projects?

Further stakeholder research (CMMI recommended):

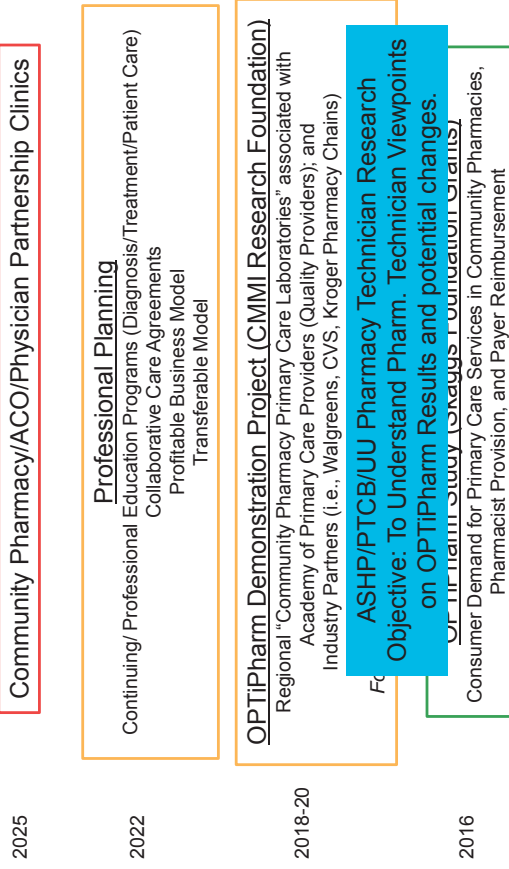
- Evaluations of demand among **primary care physicians** – especially rural
- Demand and occupational stress/satisfaction among **pharmacy technicians**

Demonstration Research with Key Partners

- PILOT implementation of Services:
 - Regional "Community Pharmacy Primary Care Clinics" associated with
 - Academy of Primary Care Providers (Quality Providers); and
 - Industry Partners (i.e., Walgreens, CVS, Kroger Pharmacy Chains)
- EVALUATE Health Care Outcomes in Selected Chronic Disease States (Quality Evidence Based Measures)
 - Reduction in Morbidity and Mortality
 - Improved Quality of Life
 - Patient and Provider Satisfaction
- DEMONSTRATE SUSTAINABILITY – though profitable business models for all three partners (Merit Based Incentive Pay System: MIPS)

38

Future Projects (Green: Completed, Orange: Planning, Red: Vision)



39

An Audacious Goal

Community Pharmacy as Primary Care Clinics

WE CAN MAKE THIS HAPPEN!

40