

Robert Muni, Stephanie Brito & _____ Jesse Calderon

Introduction to Problem

- Cost barrier
- Scheduling barrier
- Accessibility difficulties

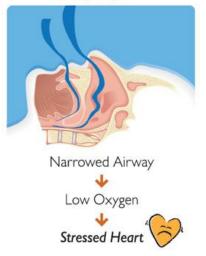
Case Study & Statistics



Normal Airflow



Sleep Apnea



Why don't people see doctors?

Table 63 (page 2 of 3). Delay or nonreceipt of needed medical care, nonreceipt of needed prescription drugs, or nonreceipt of needed dental care during the past 12 months due to cost, by selected characteristics: United States, selected years 1997–2014

Updated data when available, Excel, PDF, more data years, and standard errors: http://www.cdc.gov/nchs/hus/contents2015.htm#063.

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

	Delay or nonreceipt of needed medical care due to cost ¹				Nonreceipt of needed prescription drugs due to cost ²			Nonreceipt of needed dental care due to cost ³				
Characteristic		2004	2010	2014	1997	2004	2010	2014	1997	2004	2010	2014
Hispanic origin and race and percent of poverty level ^{5,7}						Percer	nt					
Hispanic or Latino: Below 100%	14.6 12.2 8.0 5.1	14.0 14.4 9.2 4.6	19.0 18.6 13.9 7.7	16.2 13.2 9.6 5.1	10.6 8.1 4.4	13.2 12.5 9.7 4.2	18.9 14.7 11.5 4.6	13.1 9.8 6.1 *3.1	16.1 13.5 9.2 4.5	19.6 19.4 13.7 8.2	30.5 25.2 18.1 9.1	22.6 19.8 11.8 5.7
Not Hispanic or Latino: White only: Below 100% 100%199% 200%-399% 400% or more Black or African American only:	24.3 20.9 11.4 4.6	25.3 23.0 13.3 5.3	26.1 27.6 16.0 6.9	24.7 21.3 12.3 4.3	17.3 12.4 5.4 1.7	19.8 19.1 9.4 3.4	24.6 19.9 11.3 3.8	17.9 14.6 7.0 2.5	23.4 20.6 10.6 4.5	25.2 26.1 15.4 5.7	31.8 31.7 18.0 6.9	25.3 22.8 13.7 4.5
Below 100% 100%–199% 200%–399% 400% or more	16.1 14.3 8.8 4.6	19.3 16.2 9.6 4.6	24.4 22.9 14.6 8.1	18.0 17.3 12.6 5.0	14.9 13.9 7.0 *2.9	20.8 18.2 9.0 *3.9	21.1 21.3 13.7 5.6	18.0 13.2 8.6	14.8 16.4 8.6 4.3	23.4 20.0 11.2 4.8	29.7 28.2 16.1 9.1	24.1 17.2 11.4 *4.3
Health insurance status at the time of interview ⁸												
Insured	6.8 6.0 11.9 27.6	6.9 6.2 11.9 30.2	9.1 8.2 12.5 34.5	7.5 6.4 11.6 30.4	3.7 2.9 11.1 18.0	5.9 4.8 13.2 22.9	7.3 6.0 13.5 25.7	5.7 4.1 11.6 17.6	7.2 6.2 14.8 26.1	8.7 7.3 18.9 32.3	11.8 9.2 24.2 37.7	9.6 6.9 20.3 28.2

Table 63 (page 2 of 3). Delay or nonreceipt of needed medical care, nonreceipt of needed prescription drugs, or nonreceipt of needed dental care during the past 12 months due to cost, by selected characteristics: United States, selected years 1997–2014

Updated data when available, Excel, PDF, more data years, and standard errors: http://www.cdc.gov/nchs/hus/contents2015.htm#063.

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

	Delay or nonreceipt of needed medical care due to cost ¹			Nonreceipt of needed prescription drugs due to cost ²			Nonreceipt of needed dental care due to cost ³					
Characteristic	1997	2004	2010	2014	1997	2004	2010	2014	1997	2004	2010	2014
Health insurance status at the time of interview ⁸												
Insured	6.8 6.0 11.9 27.6	6.9 6.2 11.9 30.2	9.1 8.2 12.5 34.5	7.5 6.4 11.6 30.4	3.7 2.9 11.1 18.0	5.9 4.8 13.2 22.9	7.3 6.0 13.5 25.7	5.7 4.1 11.6 17.6	7.2 6.2 14.8 26.1	8.7 7.3 18.9 32.3	11.8 9.2 24.2 37.7	9.6 6.9 20.3 28.2

Source: https://www.cdc.gov/nchs/data/hus/hus15.pdf#063

Figure 1. Percentage of people who had selected experiences with physician availability in

the past 12 months, by age group: United States, 2012

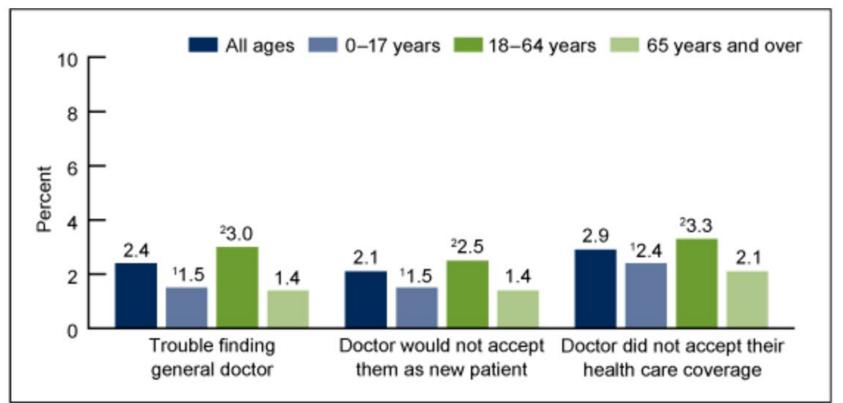


Figure 2. Percentage of people who had trouble finding a general doctor in the past 12

months, by age group and health insurance status: United States, 2012

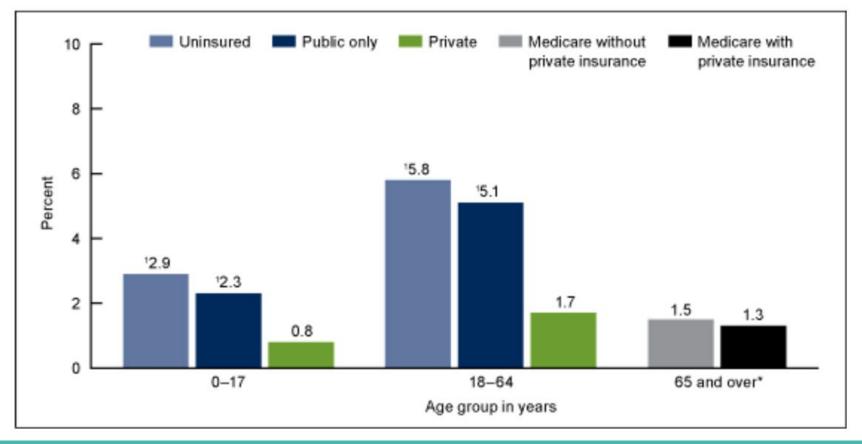
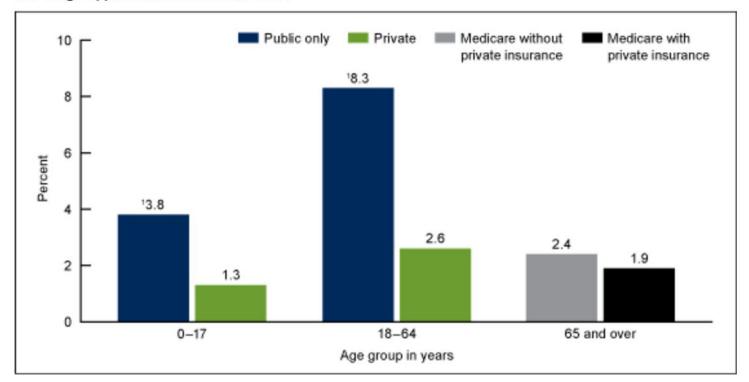


Figure 4. Percentage of people with health insurance who were told in the past 12 months that a doctor's office or clinic did not accept their health care coverage, by age group and coverage type: United States, 2012



Source: https://www.cdc.gov/nchs/data/databriefs/db138.htm

EXISTING SOLUTIONS...

UNITED HEALTHCARE

Dental Insurance

Choose coverage and pricing that will make you smile.

Find Plans >

Short Term Health Insurance



In times of change, find short term solutions that help you bridge the gap.

Health care coverage for those

with lower incomes. Enter your

ZIP code to see Medicaid plans

available in your area.

Medicaid

Medicare



A federal health insurance program for people age 65 and older and/or are disabled. Enter your ZIP code to see Medicare

plans in your area.

Find Plans

Vision Insurance

See excellent value with vision insurance. Find Plans >

Know Where to Go for Care



Find Plans

Review the options for where to get care - and see how you can save money by choosing wisely. Learn More >

Enjoy the flexibility to visit almost any doctor that accepts Humana's plan terms. What's the difference?

Learn more about the managed care options Humana offers for your Medicare Advantage coverage. The chart below may help you determine which option is right for you: a health maintenance organization (HMO), a preferred provider organization (PPO), or a private fee-for-service (PFFS) plan.

🛱 Print

	Type of plan	Primary care physician (PCP)	Specialist Referrals	Copay for office visits	Our-of- pocket costs	Monthly premiums	Annual Deductible
Humana Gold Plus® HMO	Health maintenance organization	Member must choose an in-network primary care physician	Required from PCP	As low as \$5	\$2,200 - \$6,700, depending on plan	As low as \$0	No
Humana Choice [®] PPO	Preferred provider organization	Open; in or out of network	Not needed	As low as \$0	\$3,400 - \$6,700, depending on plan	As low as \$0	Yes
Humana Gold Choice [®] PFFS	Private-fee- for-service	Open, but provider must accept Humana terms and rates	Not needed	As low as \$10	\$5,000 - \$6,700, depending on plan	As low as \$0	Yes

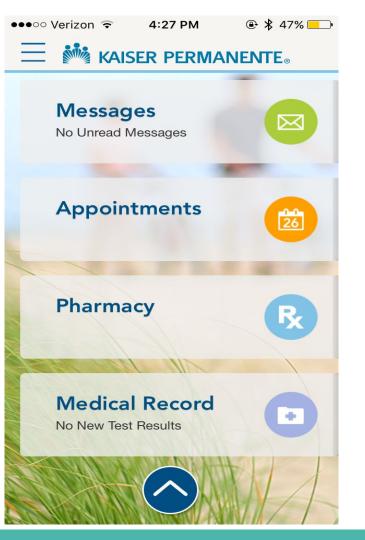
HUMANA

KAISER PERMANENTE | Individual & family plans

KAISER



KAISER MOBILE



Worthy of critique

- Tools tailored to only customers who have bought these specific plans.
- Plans do not offer earliest available appointment option for patients.
- Patients are not able to compare benefits across various insurance coverages.
- Mobile technology potential not widely utilized in health care.

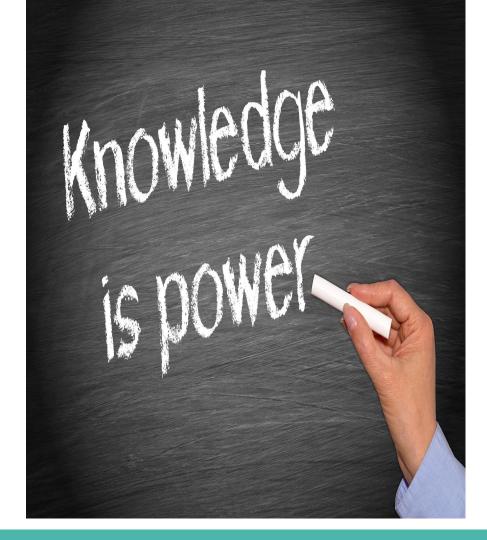
Main Constraint

• HIPAA (1996)



Over-Arching Importance

The HIPAA Privacy regulations require health care providers and organizations, as well as their business associates, develop and follow procedures that ensure the confidentiality and security of protected health information when it is transferred, received, handled, or shared...only the minimum health information necessary to conduct business is to be used or shared.¹



Rapidly Growing Insurance Space

- As of 2016, approximately 2 million agents, adjusters, and analysts must depend on antiquated systems founded on paper-based processes.²
- Personalized coverage models with real-time access to data.
- Between \$2 billion and \$3 billion invested in insurance startups with over 290 different investors competing for deals in 2015³
- Peer to Peer Insurance models.

Our Approach...

Initial Thoughts

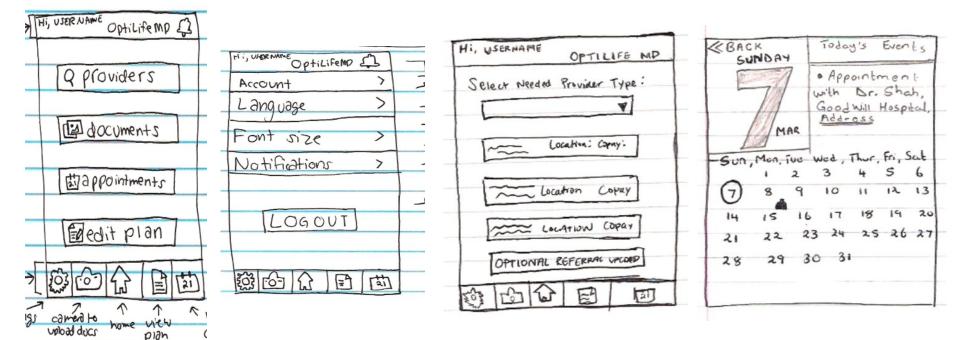
- Too many papers exchanged in health care
- Care not easily accessible to many people
- Long wait times for receiving medical attention
- Lack of options

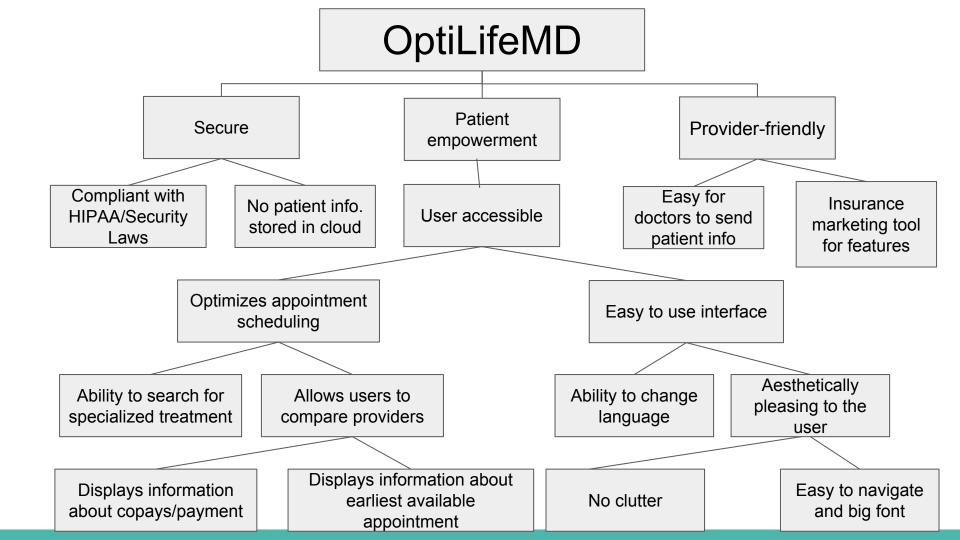


Design Considerations

DESIGN CONSTRAINTS AND OBJECTIVES	Priority (✓)	Mobile App	Website	Call center	VR AI
C: Must be free for patients				*	*
C: No patient data stored in cloud					
O: Easy to use	1	1	2		
O: Shows available physicians & co-pays	J J J	1	2		
O: Shows future appointments and schedules	J J	2	1		

Initial Sketches







OptiLifeMD 👽





find your PROVIDER

After uploading your insurance plan, let our algorithm connect you with providers in and outside of your network. We will provide you with information about the earliest available appointment and how much your appointment should cost.

FIND PROVIDERS



APPOINTMENTS

Get first-available appointments online and manage your appointments.



Cost Analysis & Revenue

- Cost:
 - Developing an app and CS team
 - > Varies from \$20,000 to \$50,000
 - Amount of money needed per person
 - Marketing, recruiting, company building, etc.
- Revenue:
 - Ads in the application, low cost to use the product, having free features and locked ones

Second Generation

- Other areas of disparities exist:
 - Language/Immigration status
- Additional cost-factors exist:
 - Comparing cost for medical services
 - Could increase competition and drive down cost
- Potential Features:
 - Holding medical information on the application
 - Referral Uploader

Ultimate Goal...

To become a disruptive technology and make healthcare accessible to all.

Thank you!



Special thanks to My T. Le, Andrea Goldsmith, & Erica Weirich