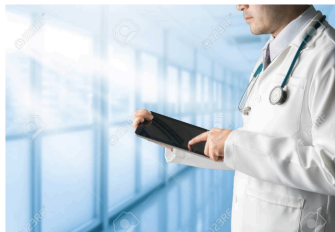


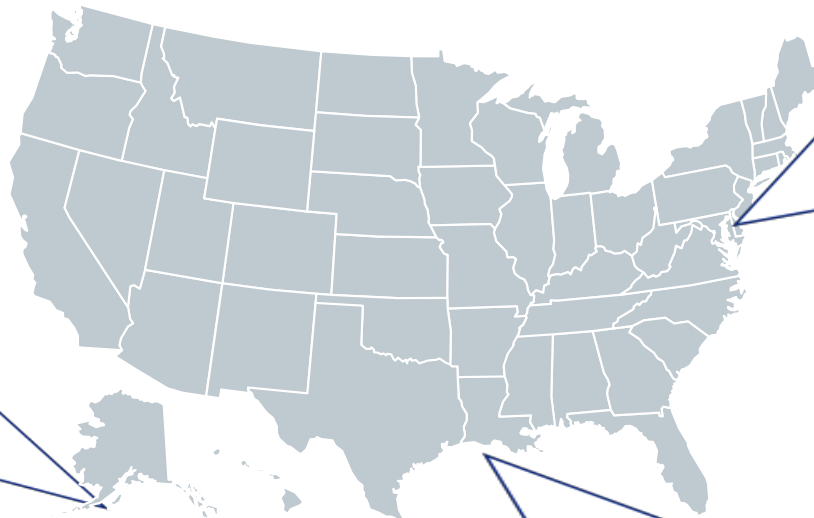
Head 2 Toe

Natalie Ferenbach, Ankit Gupta,
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Anav Sanghvi, Andy Huang

Current State of Medical Data



Only **33% of physicians** reported that they were very satisfied with their access to patient data



Doctor relies on the patient/family's memory and record-keeping when intaking a new patient

Yet **40% to 80%** of medical information provided by healthcare practitioners is **forgotten immediately**



Without knowing your medical history, the new doctor may repeat steps already taken, putting you through unnecessary diagnostics and potentially amassing insurance claims and medical bills that **just aren't necessary**



Patient Snapshots

1. Sarah comes into a hospital and is unable to speak and has never visited the hospital before.
2. Luckily, her husband is with her and remembers to tell the hospital that she has a severe allergy.
3. Surgeon suggests surgery #1, but then husband remembers that she has a certain chronic condition.
Without this information, the surgeon would have put her life at risk.
4. He adjusts plan and provides surgery option #2.



Incomplete data leads to higher risk of preventable deaths

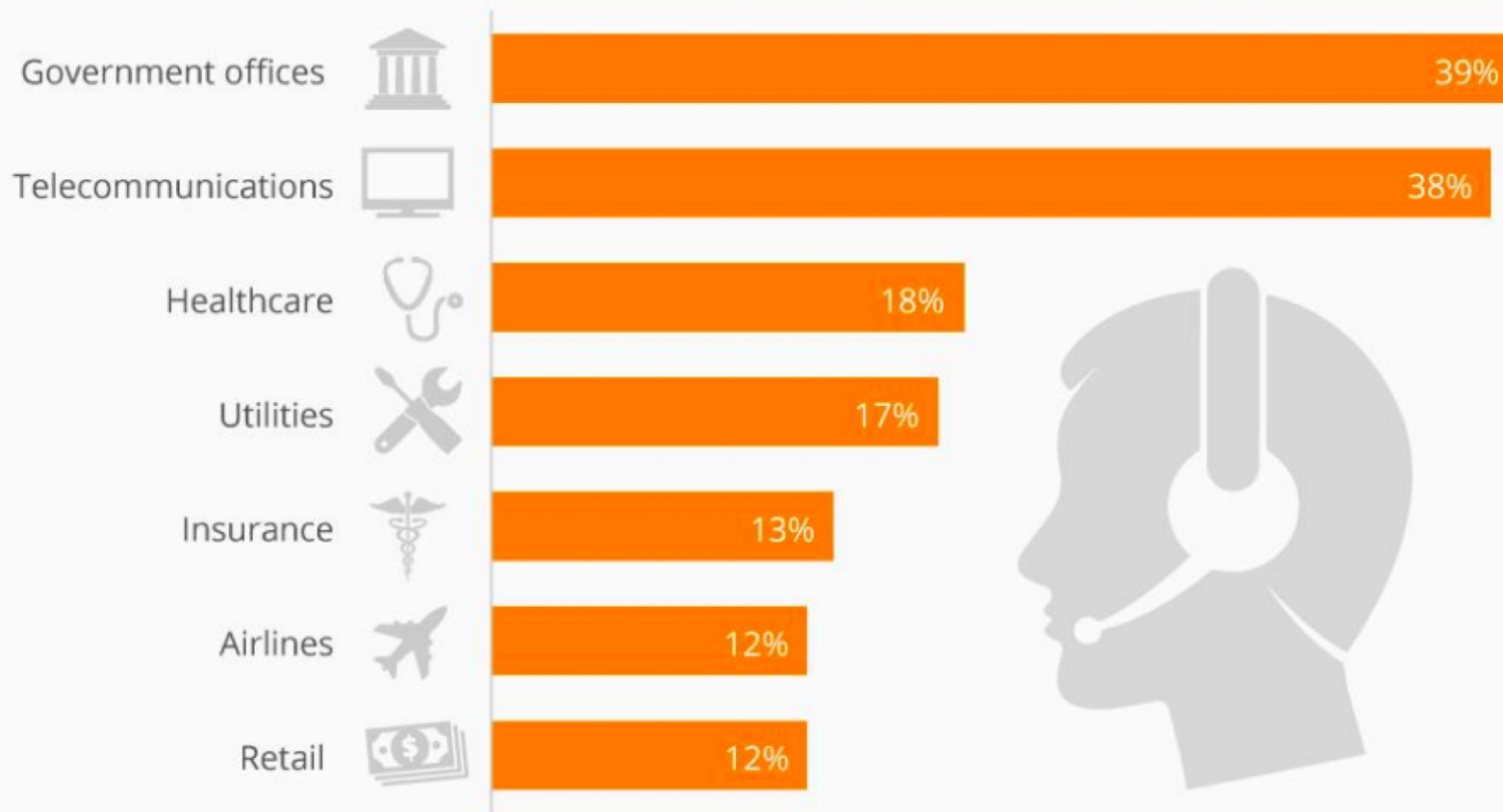
1. Melissa needs to get records from all of Ava's specialists in time for the 2-year-old's visit with her pediatrician. Ava has epilepsy and a congenital heart defect.
2. For Ava's 2-year pediatrician visit, Melissa needs records from 5 specialists. The cardiologist mails her a copy. For the pediatric geneticist, she needs to go in person, and it's a 90-minute drive to their office. The neurologist has a portal but she still has to fax a letter of release. **It just takes so much time.**



Administrative burden, even for patients with high health literacy

Which Industries Have The Worst Customer Service?

% of Americans saying the following industries have the worst customer service*



Meanwhile, the rise of high deductible health plans mean people are paying attention to costs and level of service



Source: Ipsos

* February 2015

n=1,000

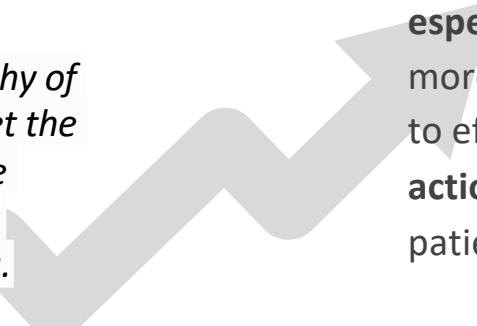
Forbes statista



True Interoperability Is Still Years Away

“

*A recent study revealed that just shy of 30% of hospitals were able to meet the four key metrics necessary for true interoperability: data integration, reception, distribution and finding. Even more alarming? These 2017 numbers were up from just 24.5% three years earlier, **which means that only one in 20 hospitals attained interoperability in that time.***

- 
- In the meantime, many physicians, **especially those in smaller practices** with more limited resources, have very few tools to efficiently organize the data into **actionable information** that enhances patient care
 - **83%** of doctors have adopted electronic medical records, yet the data is siloed across systems

Our Solution

Head 2 Toe takes a business-to-business approach to sending providers a complete picture of a patient's medical history, prior to their first visit at a new practice



Provider and Patient Productivity

Reduced administrative burden in manually gathering and collating past records



Patient Safety

Reduces risk of preventable medical errors



Scalable Model

Business-to-business approach allows for roll-out at scale



HIPAA-Compliant Cloud-Based Approach

Seamless data sharing by leveraging cloud solutions

Head 2 Toe Sample Workflow

Trigger: Patient Sarah reaches out to new provider (LA Medical) to request an appointment. Sarah lists previous provider (DC Medical)

1. LA Medical logs onto portal and sees appointment for new patient, Sarah

2. LA Medical requests consent from Sarah to fetch previous records from DC Medical

3. After Sarah's consent, LA Medical requests patient history from DC Medical

4. DC Medical grants LA Medical read-only access to data on cloud

5. Sarah's medical history pre-populated upon arrival at LA Medical

Improved **patient experience** through **seamless data transfer**

[Click for MVP Demo](#)

The screenshot displays a mobile application interface for 'DC Smiles'. On the left is a vertical sidebar with a list of user avatars and names: John Smith, Daniel Chan, Ulysses Raynor Jr., Jane Doe, Nathan Liu, and Uma Singh. The main content area is titled 'DC Smiles' and shows a 'Request for Consent form' with a 'Send' button. Below the form is a green button labeled 'View & signed consent form (signed)'. At the bottom of the main area is a 'Type something...' text input field with a 'Send' button. On the right side, a patient profile for 'Smith, John' is displayed, containing personal and insurance details.

Smith, John

Gender: Male
MRN: 123-456-7
Phone: 626-124-4596
Birth Date: 01/01/1991
SSN: 465-12-8411
Height: 6' 11"
Weight: 210
Address: 543 Jewel Ave, CA 90024

Medical Insurance: Leni Medical
Effective Date: 01/01/2018
Policy Name: BJ-L-135
Phone: 485-415-2222

Dental Insurance: Melita Dental
Effective Date: 01/01/2018
Policy Name: SK-135-G
Phone: 987-523-5555

Emergency Contact: Tom Saw
Phone: 626-124-3388



Total Target Market: Strong Continuous Upward Growth

Buyer Base	2018	2019	2020	2021	2022
Total physician practices in US (1 doctor/350 people; 0.7% annual growth)	230,000	241,500	253,575	261,182	269,018
Total practices using EHR	83%	85%	87%	89%	91%
Total spending on EHR (approximate)	\$25B	\$27B	\$29B	\$31B	\$33B
Total practices using cloud	85%	90%	95%	97%	98%
Total healthcare cloud market (assuming 20% CAGR, actual growth may exceed)	\$4.5B	\$5.6B	\$7B	\$8.8B	\$11B

¹ Using 2016 data, there are 950,000 active licensed physicians, half of which are primary care physicians and half are specialists. There is a trend towards larger practices and a shift from physicians owning their own small practice to joining larger practices owned by health systems.

² However, 51% use only basic functionality of EHR systems. Also, use is more highly concentrated with primary care physicians (PCP); only about 50% of surgical and medical specialists report using basic EHR functionality.



Revenue Forecast: Address the High Price of Administrative Costs

By eliminating admin costs and medical errors...

- 25% of hospital costs are administrative
- **86% of mistakes** result from administrative errors
- Preventable medical errors are the **#3 killer in the US**, claiming the lives of 400,000 people each year
- Providers fill out an average of 20,000 forms each year
- Insufficient care coordination increases average costs of chronic disease management by \$4500+ over 3 years, while reducing treatment compliance
- Large hospital system **spends \$3M/year** on communication platform between Physician and Patient

...Head2Toe will build a sustainable business model

- 2-3 engineers from Head2Toe work onsite at provider to build integration capabilities for 4-5 weeks
- Head2Toe provides 24-hour support off-site support leading up to launch and 1 month after
- Ongoing off-site support
- Pricing scale based on size of healthcare provider

UCLA-Based Expansion

- Partner with the UCLA Ashe Center in year 1: build integration capabilities with students' immunization records
- Expand to UCLA Health System over 2 years: 2M+ patients served across 170 locations



Launch Plan

Costs to Our Customers	
Integration Build	\$500,000 base fee
Patient Data Input	<ul style="list-style-type: none"> <5000 patients: \$10/patient 5000+ patients: \$9/patient 10,000+ patients: \$8/patient
Ongoing Support	Free for 6 months, then cost based on # of patients: <ul style="list-style-type: none"> <5000 patients: \$5/patient 5000+ patients: \$4/patient 10,000+ patients: \$3/patient

Break-Even Analysis	2019	2020	2021
Revenue (\$)	860,000	1,035,000	1,185,000
Up-front launch costs (tech, onboarding, partnerships, marketing etc.)	300,000	500,000	300,000
Labor costs	450,000	630,000	630,000
Total costs	750,000	1,130,000	930,000
Profit (\$)	-90,000	-95,000	255,000

2019: Large Provider (Ashe) = \$500,000 + \$8(45,000 patients) = \$860,000 up-front and \$135,000 ongoing

2020: UCLA Phase 1 = \$500,000 + \$8(50,000 patients) = \$900,000 and \$150,000 ongoing

2021: UCLA Phase 2 = \$500,000 + \$8(50,000 patients) = \$900,000

Competitor Strengths and Weaknesses



Picnic Health

Strengths: clean interface and value-add features

Drawbacks: B2C model; consumer digital literacy and motivation to retrieve data unclear



Large Healthcare Systems (ex: George Washington University Hospital)

Strengths: provides patient data from multiple specialties

Drawbacks: relies on new patients to provide medical history at the first point of care

Health Wizz

Strengths: leverages blockchain technology

Drawbacks: available version on the Apple store demonstrates subpar performance




Patientory

Strengths: blockchain-based platform that connects doctors, care providers, and consumers

Closest competitor





Ongoing Strategy: Emphasis on Cybersecurity and HIPAA Compliance



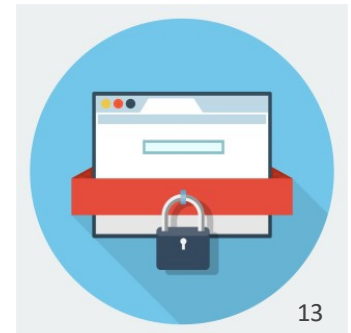
Channel is READ ONLY access, meaning we (and any potential hacker) cannot view data



Data security concerns are a main reason why providers hesitate to share data, but HIPAA was created to aid data exchange, not hinder it



"HIPAA Privacy Rule specifically permits a use or disclosure of PHI for the covered entity that collected or created it for its own treatment, payment, and health care operations activities" (ONC)





Thank You!
Questions?