

Barriers and Facilitators of Digital Health Adoption for Chronic Disease Management



Meshari F. Alwashmi Ph.D

Chief Scientific Officer - BreatheSuite

AGENDA

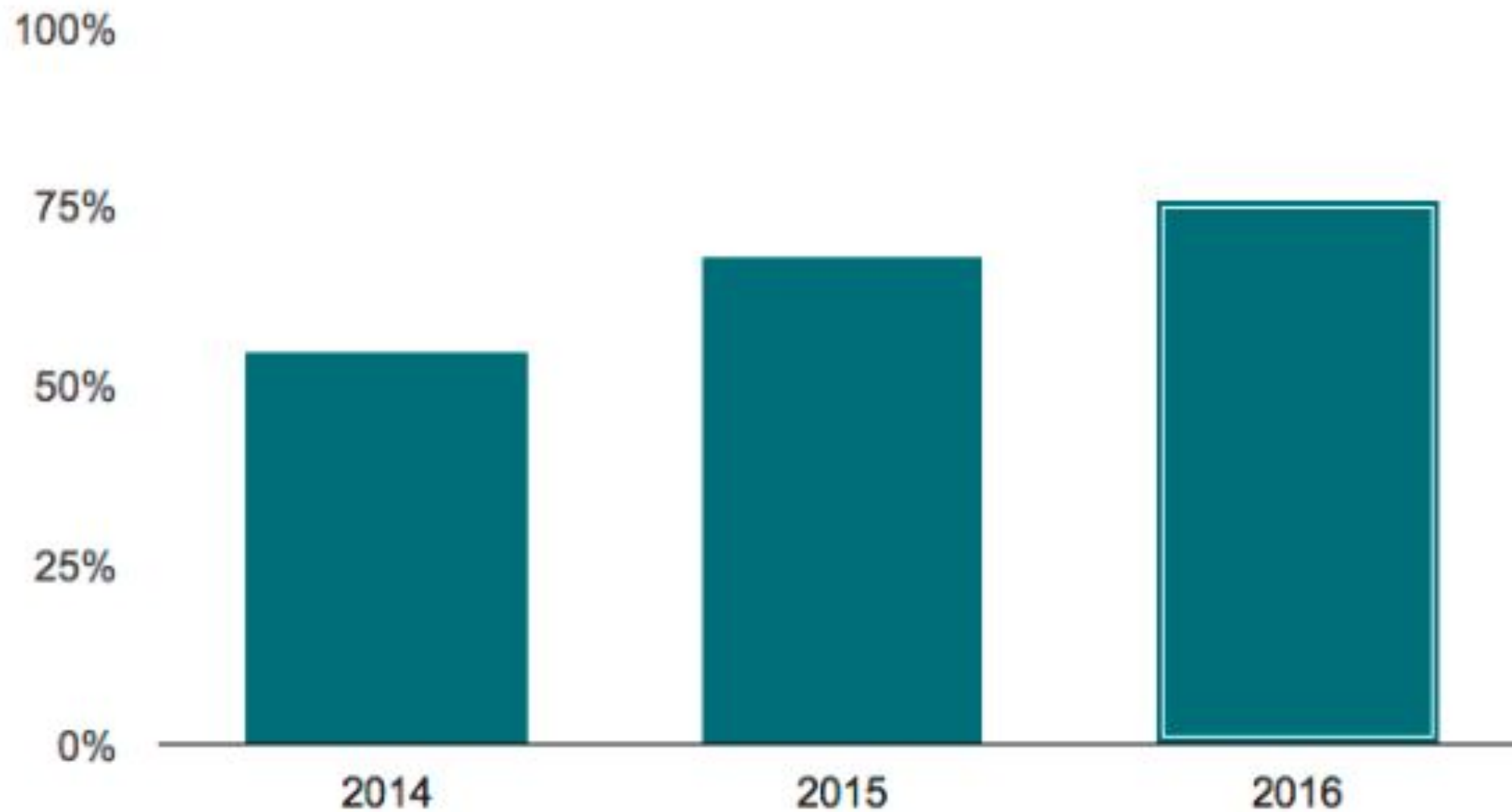
- Digital Health
- Barriers and Facilitators
- Policy Implications



Digital health connects and empowers people and populations to manage health and wellness, augmented by accessible and supportive provider teams working within flexible, integrated, interoperable and digitally-enabled care environments that strategically leverage digital tools, technologies and services to transform care delivery. **Healthcare Information and Management Systems Society**



SMARTPHONE OWNERSHIP



Catalyst Canada, 2016





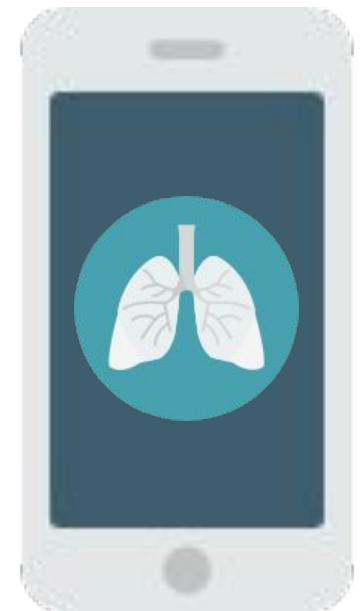
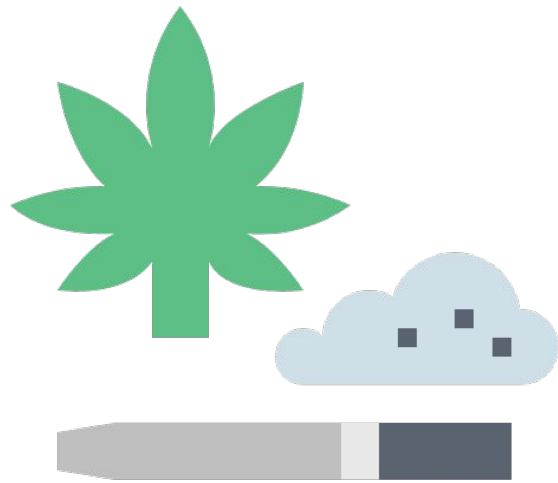


RESEARCH STUDY

To understand the potential facilitators and barriers that might influence Digital Health adoption for COPD management



WHY COPD?



QUESTIONNAIRE

Technology Access and Use

- Demographics
- Ownership and internet capacity
- Use of Digital Health



Barriers

- What is limiting you from using Digital Health in your practice?
 - (financial, employees, technical)
- How can we solve it?




Facilitators

- Tell me about a situation when you have tried to use Digital Health?
- What data did you collect? How often?
- What motivated you to use Digital Health?
- How can we train you to use it?



TECHNOLOGY OWNERSHIP

 26% < 65



72.7% owned a mobile phone



23.4% owned a smartphone



32.5% owned an iPad or a tablet



35.1% owned a blood pressure monitor



22.0% participants owned a glucometer.

Findings - Facilitators



HCPs and patients should be educated on how to use it.



Needs to be credible.



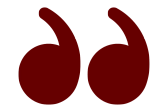
Reduce costs to the healthcare system.

Findings - Facilitators



It has possible health benefits for patients.

“ it would give patients the power to be part of their management plan, which is better when patients are empowered, because they feel in control of their health



Findings - Facilitators



The software needs to be easy to use.

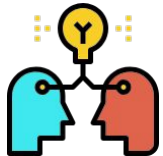
“ people are overwhelmed when they are diagnosed with something that is new and complicated, and affects something as important as your breathing. So, this has got to be something that is easy for them to access and use

”

BARRIERS



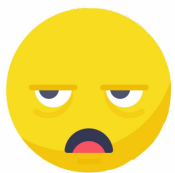
There may be privacy and confidentiality concerns.



Lack of awareness is a challenge.



There may be limited uptake from the elderly.



There was little interest in using mHealth intervention.

Findings - Barriers



There are technical issues with Digital Health.

“ there are patients within little pockets of NL that don't have cellular service or Internet connection, so unfortunately those patients will not be able to be referred to the program ”

Findings - Barriers



There are possible financial barriers.

“ I mean we’re all so busy that nobody wants to do anything for free because why would I do that for free if I get paid for it. So that’s a barrier that has to be overcome is that how do you change some of the way physicians are paid... If I do a poor quality of care for my COPD patient or if I do an excellent quality of care, it’s the same payment.



Policy Implications

1. Create a certification for compliant Digital Health interventions

- Meet the standards of privacy and confidentiality
- Capable of offering tech support
- Peer-reviewed evidence



Policy Implications

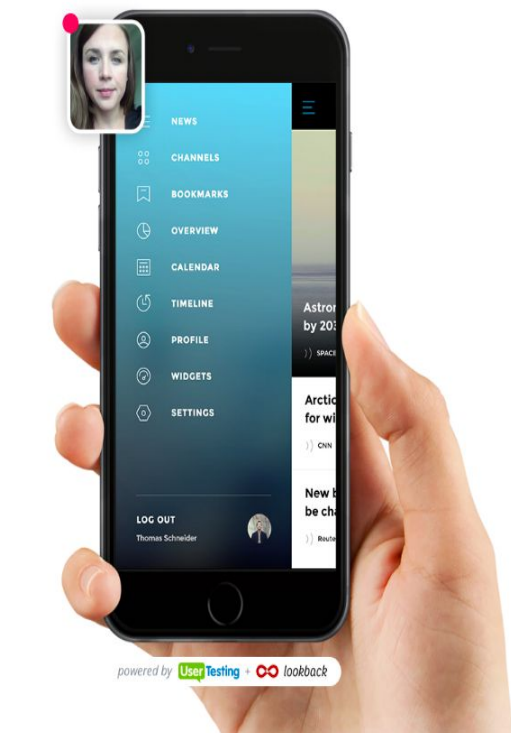
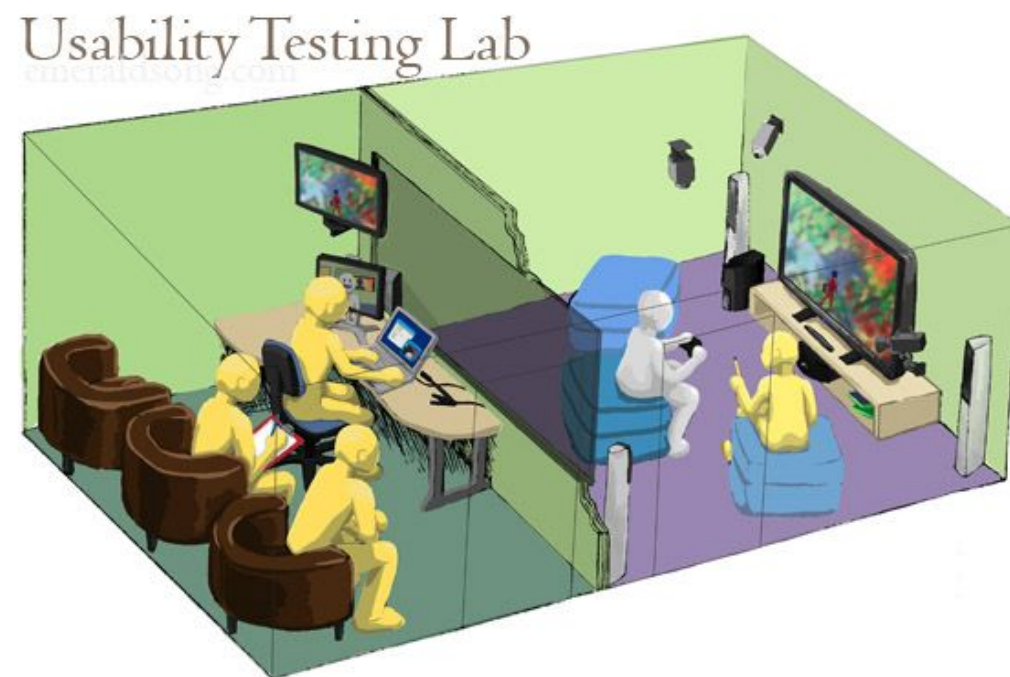
2. Teach patients and providers about digital health

- Include it in the curriculum
- Online resources
- Public health programs
- Introduce health coaches
- Leverage family members



Policy Implications

3. Focus on usability



Policy Implications

4. Reduce costs of development



5. Consider bridging the Digital Divide



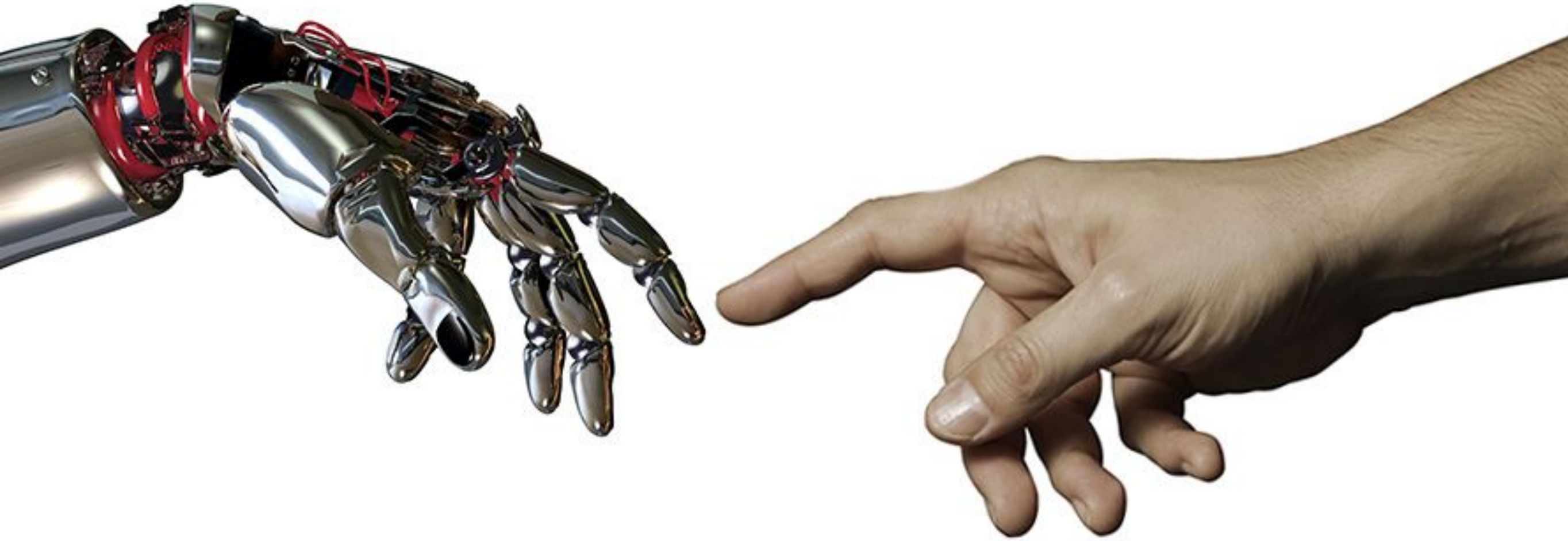
PUBLICATIONS



Alwashmi, M. F., Fitzpatrick, B., Davis, E., Gamble, J. M., Farrell, J., & Hawboldt, J. (2019). Perceptions of health care providers regarding a mobile health intervention to manage chronic obstructive pulmonary disease: qualitative study. JMIR mHealth and uHealth, 7(6), e13950

Alwashmi, M. F., Fitzpatrick, B., Farrell, J., Gamble, J. M., Davis, E., Van Nguyen, H., ... & Hawboldt, J. (2020). Perceptions of patients regarding mobile health interventions for the management of chronic obstructive pulmonary disease: mixed methods study. JMIR mHealth and uHealth, 8(7), e17409.

Alwashmi, M. F., Fitzpatrick, B., Davis, E., Farrell, J., Gamble, J. M., & Hawboldt, J. (2020). Features of a mobile health intervention to manage chronic obstructive pulmonary disease: a qualitative study. Therapeutic advances in respiratory disease, 14, 1753466620951044.



Meshari F. Alwashmi Ph.D.

mfa720@mun.ca