

WENNBERG INTERNATIONAL COLLABORATIVE SPRING POLICY MEETING 2018

ELECTRONIC PATIENT-GENERATED HEALTH DATA

Better Data to Address Patient Needs

VASILEIOS NITTAS




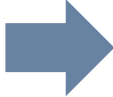

Smarter Health Care
National Research Programme



**University of
Zurich** ^{UZH}



Presentation AIMS

-  Relevance of Electronic Patient-Generated Health Data
-  Existing Evidence
-  Swiss Context

DEFINITION Electronic Patient-Generated Health Data (ePGHD)



Digital health-related data, created, recorded, gathered or inferred by or for patients and their designees

Distinct from data generated within clinical settings

“Democratization of healthcare”

Pavel, Callaghan & Key

RELEVANCE of ePGHD

Consultation / Medical Record



Patient / Consumer

“Within 5 years, the majority of clinically relevant data will be collected outside of clinical settings”

Prof. Gregory Abowd, 2011 AMIA Symposium

Consultation / Medical Record

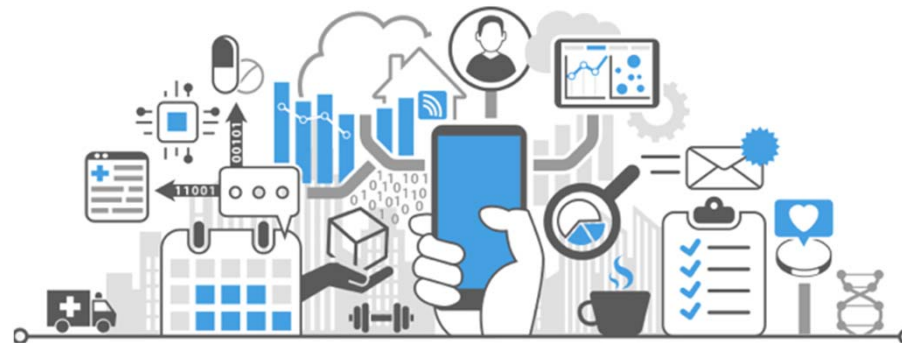


Patient / Consumer
ePGHD

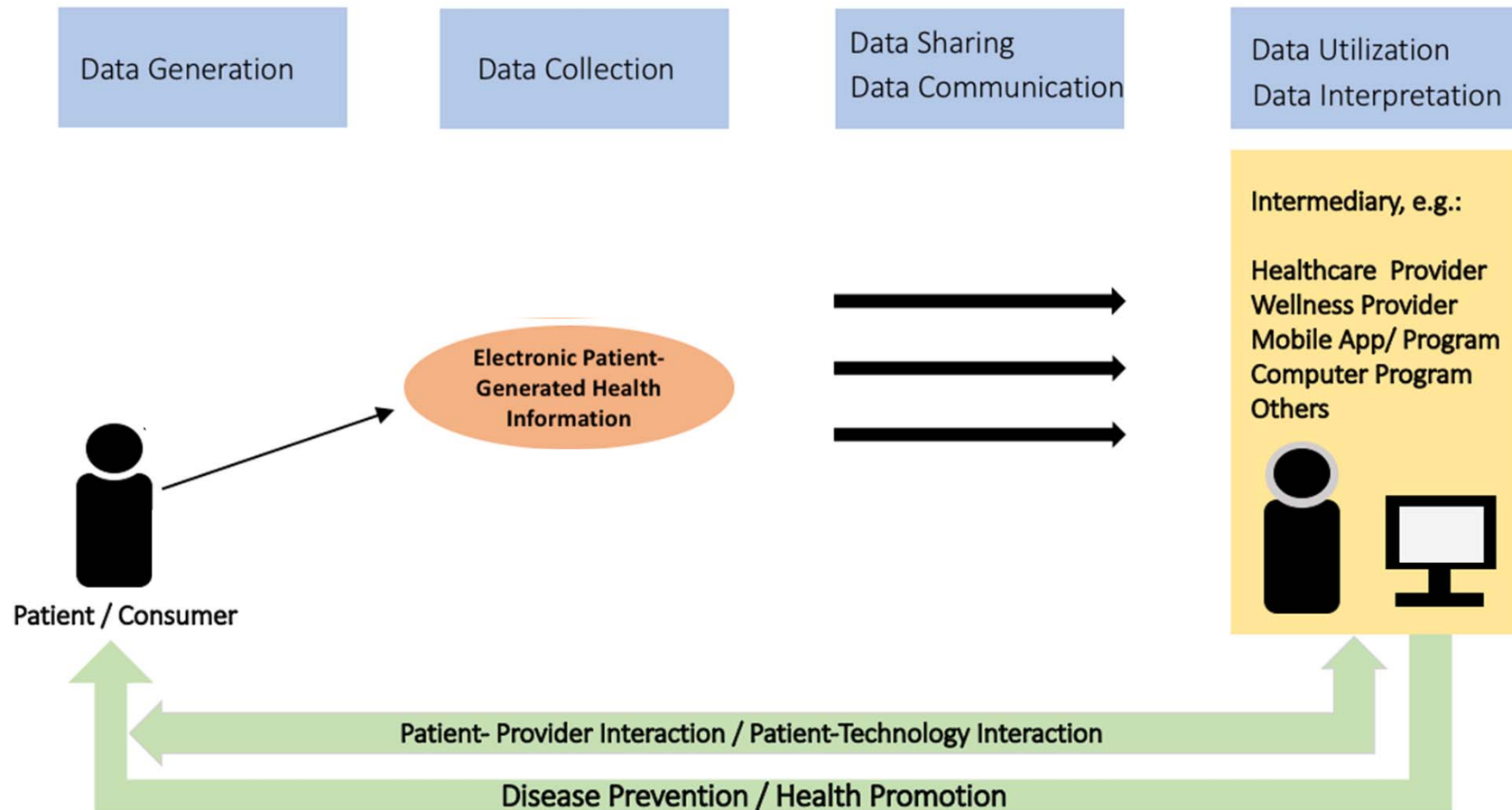
TREATMENT &
MANAGEMENT



PREVENTION &
HEALTH PROMOTION



Scoping Review - CONCEPTUAL FRAMEWORK



Scoping Review – ePGHD for Prevention and Health Promotion



overview

- physical activity
- eating behavior
- smoking
- alcohol consumption
- healthy ageing
- mental health
- other wellness data



context

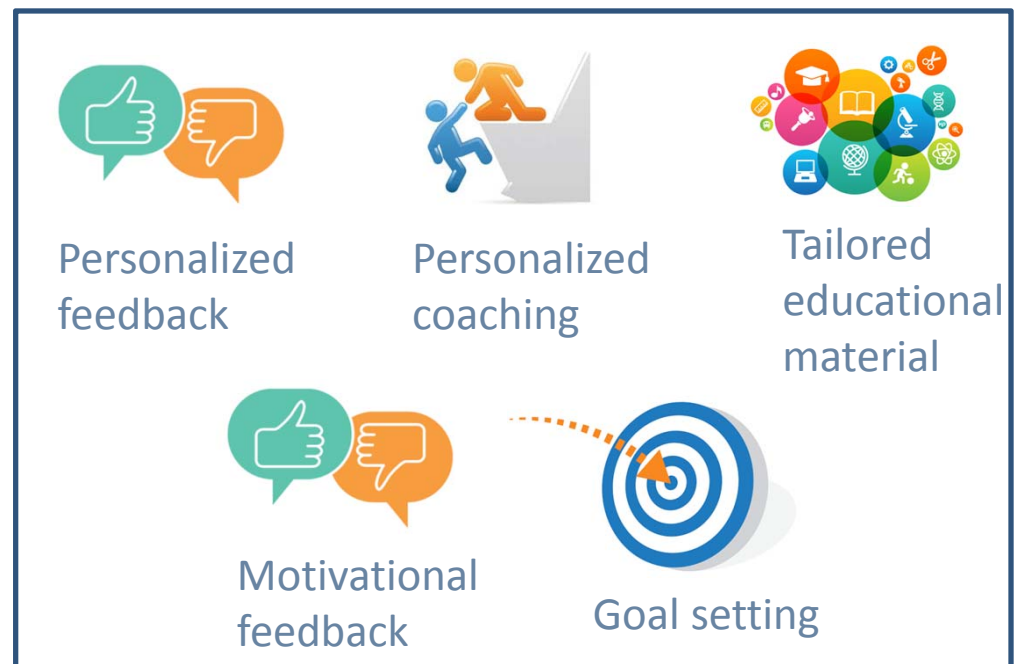
- physical context
- emotional context
- physiological context
- temporal context
- environmental context

Scoping Review - Examples

- 1 Mobile technology to increase physical activity in pregnant women
- 2 Armband and online platform to reduce weight in obese adults

ePGHD

+



GAPS AND CHALLENGES – Way Forward



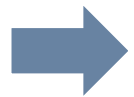
ePGHD in the **SWISS** Context



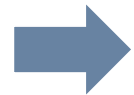
Opportunity: Elektronisches Patientendossier (EPD)

Challenge: Time for personalized, patient-centered prevention

CONCLUSIONS



Electronic PGHD are emerging exponentially



Value for patient-engagement & patient-centeredness



Potential to facilitate personalized prevention

→ filling data gaps

→ generating time for prevention



Evidence on role for prevention and health promotion lacking

→ more PGHD targeted research

→ context and integration

THANK YOU!

COMMENTS & QUESTIONS?



Special Thanks to my supervisors
Prof. Dr. Milo Puhan and Dr. Margot Mütsch
and my colleagues Penny Lun and
Dr. Frédéric Ehrler

REFERENCES

Shapiro, M., Johnston, D., Wald, J., & Mon, D. (2012). Patient-generated health data. *RTI International, April*.

Pavel, D., Callaghan, V., & Dey, A. K. (2010, March). Democratization of healthcare through self-monitoring technologies. In *Pervasive Computing Technologies for Healthcare (PervasiveHealth), 2010 4th International Conference on-NO PERMISSIONS* (pp. 1-4). IEEE

Choi, J., hyeon Lee, J., Vittinghoff, E., & Fukuoka, Y. (2016). mHealth physical activity intervention: a randomized pilot study in physically inactive pregnant women. *Maternal and child health journal, 20*(5), 1091-1101.

Barry, V. W., McClain, A. C., Shuger, S., Sui, X., Hardin, J. W., Hand, G. A., ... & Blair, S. N. (2011). Using a technology-based intervention to promote weight loss in sedentary overweight or obese adults: a randomized controlled trial study design. *Diabetes, metabolic syndrome and obesity: targets and therapy, 4*, 6

Zhu, H., Colgan, J., Reddy, M., & Choe, E. K. (2016). Sharing patient-generated data in clinical practices: an interview study. In *AMIA Annual Symposium Proceedings* (Vol. 2016, p. 1303). American Medical Informatics Association

NFP74: http://www.nfp74.ch/SiteCollectionDocuments/NFP74_broschuere_A4_D.pdf

Pictures:

<https://www.johnpatrick.com/patient-generated-health-data/>

<http://digitalhealth.holyrood.com>

<https://www.engagespark.com/applicantengage-2/applicantengage-prescreen2/>

<http://www.bär-coaching.ch/privat-coaching.html>

<http://www.mardenkane.com/articles/use-sweepstakes-analytics-meet-goals.html>

<https://www.switzerland-innovation.com/zurich/de/node/26>

<http://www.theamericannurse.org/2012/04/02/supporting-research-with-patient-centered-outcomes/>