



Dr Stephen Child

General Physician

Director of Clinical Training, Auckland District Health Board (ADHB)

Saturday, August 13, 2016

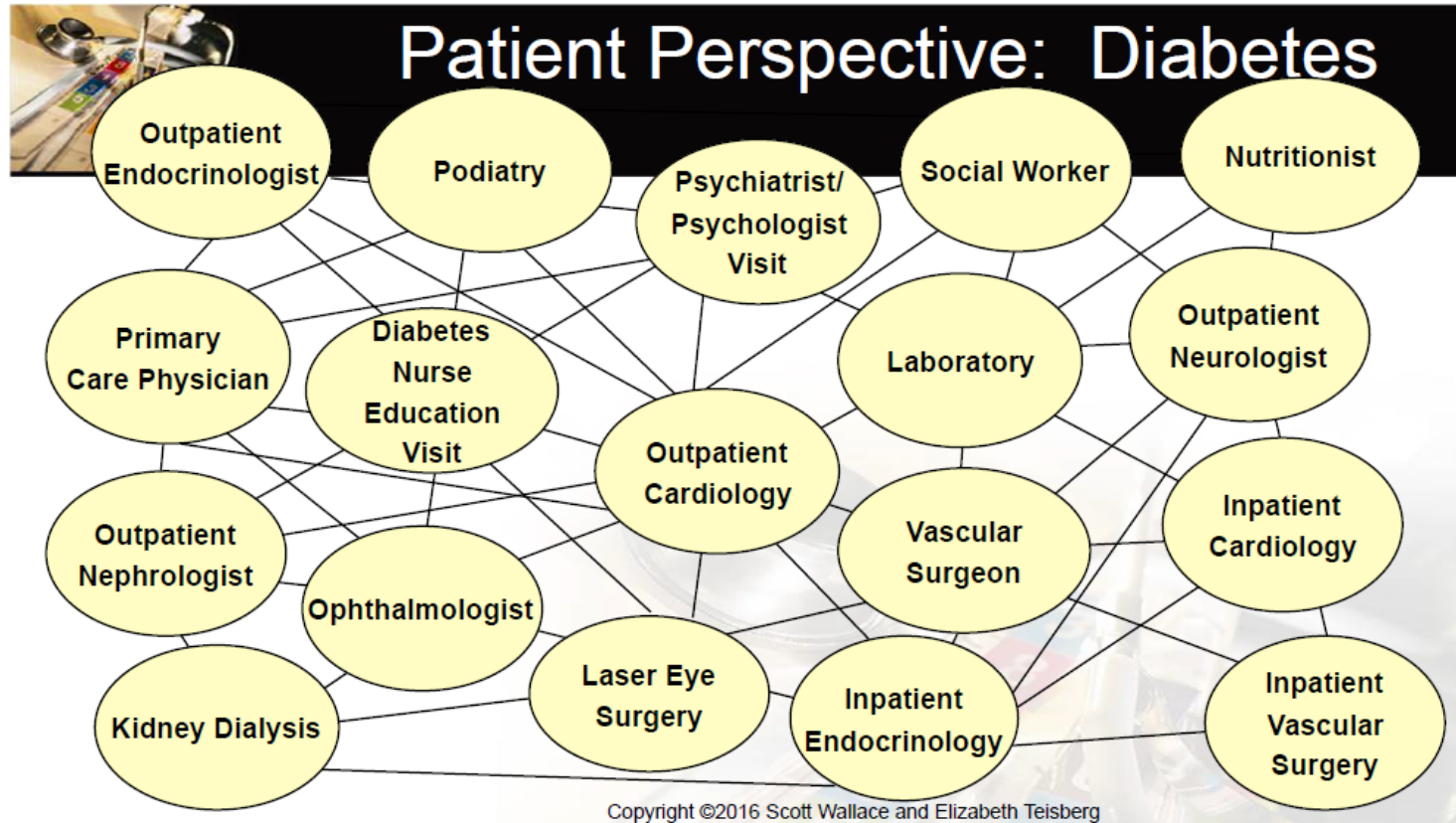
(Plenary)

14:00 - 14:20 Launching Professionals

Lauching Health Professionals -Tomorrow

Stephen Child
MD, FRACP, FRCPC
Chair, NZMA
General Physician
Respiratory Interest
Director of Clinical Training
Auckland District Health Board

Patient Perspective: Diabetes





Shifting To Health-Focused Care

Healthcare

Patients and families want more health,
not more treatment.

Treatment is an intermediate good.

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Operating environment - Disruptors

1. Photo industry - 2012.

- **Folded after 100 years (140K staff, US\$28b cap..1996)**



- **18 months old, 13 staff bought by FB for US\$1b**



Operating environment - Disruptors

2. Hosting platforms – retail, taxis, books, accommodation





Measure for Professionalism, Not Consumerism

How were we?

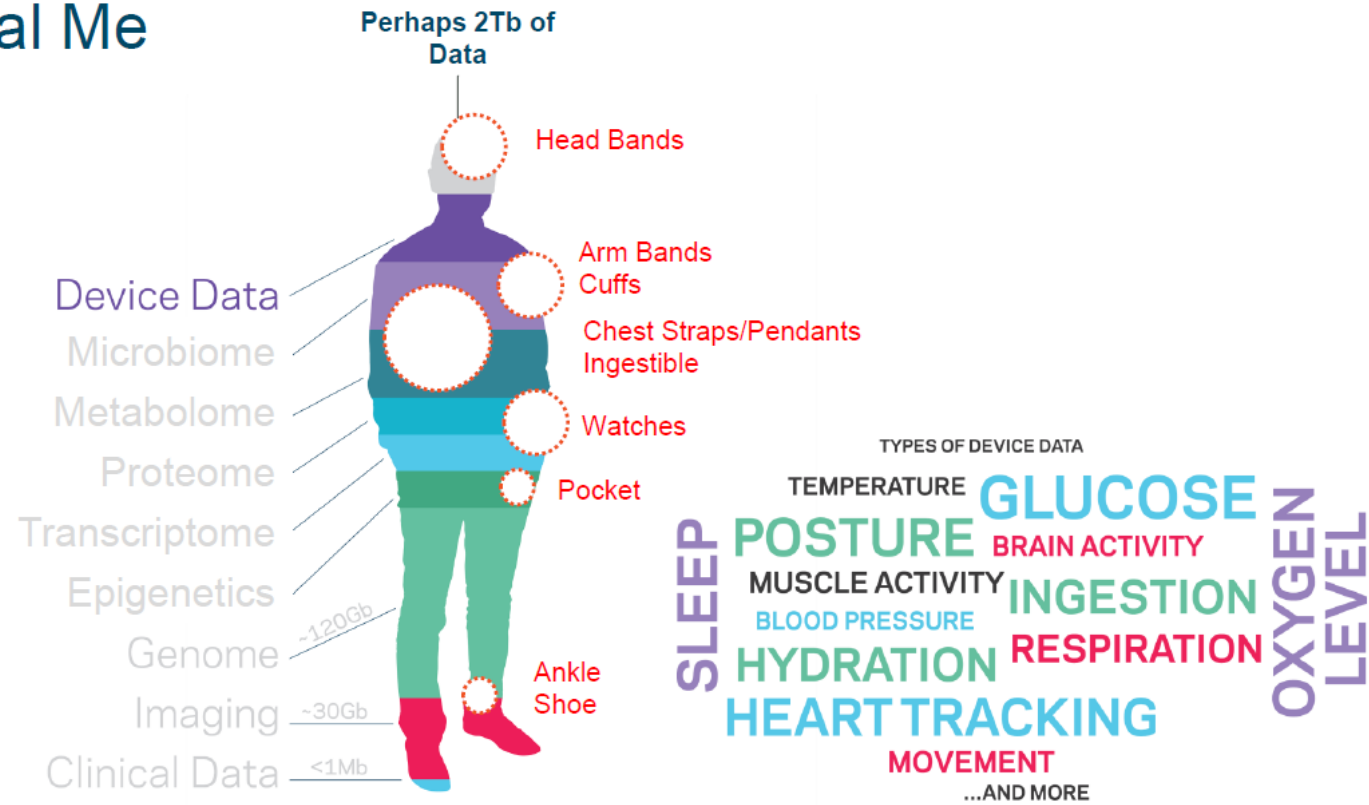
How are you?

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Patient Genetics

- 23 and Me
- Launched Nov 2007 — (FDA notification 2013)
- \$99
 - 250 medical conditions, carrier status, drug interactions (30)
 - Personal Genome Service (PGS)

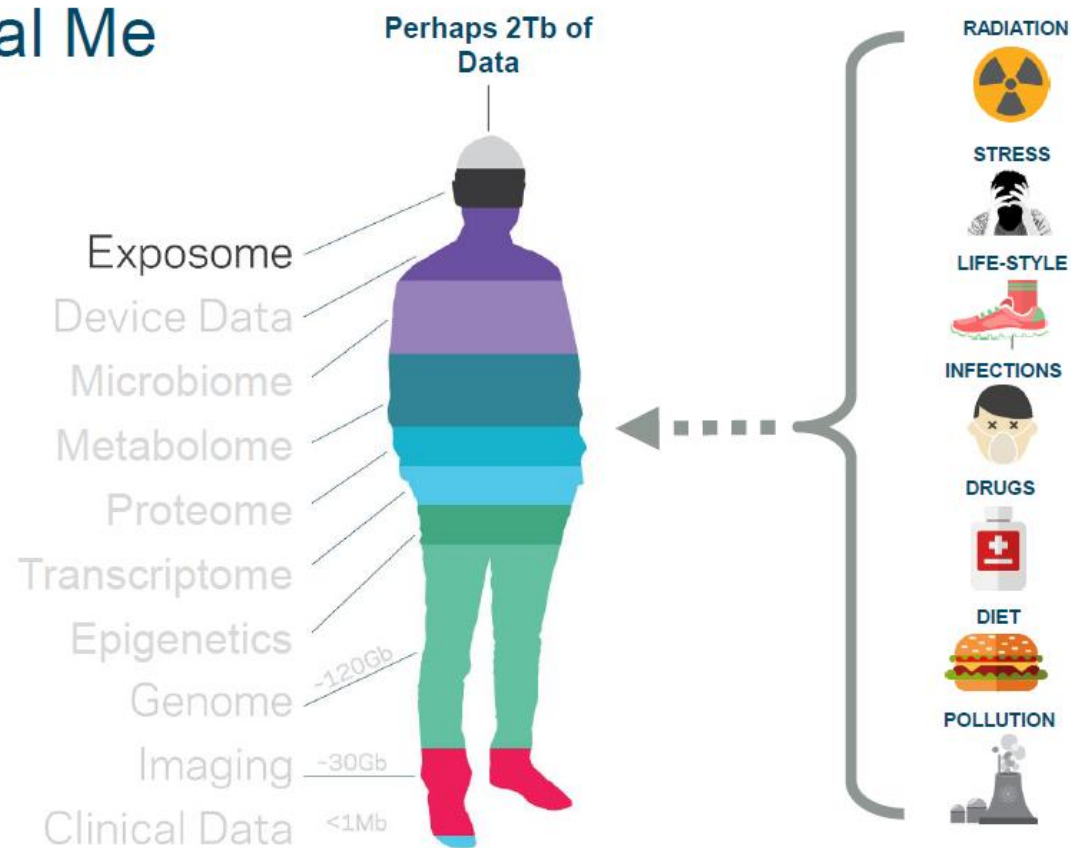
Digital Me



Current LOC assays

- Blood — glucose, HB, K, chol, Cr, LFT, Thyroid, BNP, toxins, pathogens
- Urine— R+M, alb, HCG, UTI
- Saliva — Flu, strep throat, genes
- Breath — lactate, alcohol, CHF?, drugs, cancer?
- Contact lens — glucose
- Sweat — lactate

Digital Me



LOC Plus!

- Camera to 150–300nm to detect virus!!
or Lab in the body — (LIB)

Digital Me

Social, Behavioral
and Environmental

Exposome

Device Data

Microbiome

Metabolome

Proteome

Transcriptome

Epigenetics

Genome

Imaging

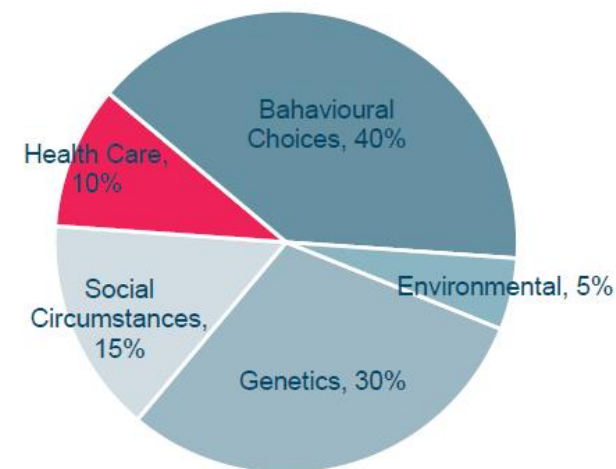
Clinical Data

Perhaps 2Tb of
Data

6Tb of Data

¹IBM Watson – Fortune 2016

Factors Influencing Health



McGinnis et. al. Human Affairs, Vol 22 (2)

Scanning/Exam

- Handheld Xrays, MRI, Ultrasound
 - V Scan, Mobisante
- MIM VueMe, Carestream, etc
- Dermoscope, Ophthalmoscope, BP, O₂ , Temp, otoscope

Patient Virtual Visits

Kaiser Permanente

Ring a doc

First Opinion

Doctor on Demand

Teladoc

Interactive MD

MD Live

Health Magic

Anywhere care

American Well

Med Lion

Verizon

Patient Virtual

“Better”

- \$50/yr per household
- Unlimited Mayo Clinic nurse access

“Teladoc”

- \$38/visit 24/7

“Medicast”

- “Uber” like for Dr visits

“Pager”

Patient Virtual

Healthspot

- Kiosk (phone + ATM — like booth)
- In dept stores
- Medical assistant escorts to booth for virtual medical link with sensors for metrics

Patient Data

Bluebutton (2015)

>100 million people in US can access own data

Opennotes (2012)

EMRs could reduce doctor demand 4–9%

Patient Adherence

Mango Health

Medi Minder

Cyber Doctors

Medi Safe

Ai Cure

Care 4 Today

Nightingale

Glow Caps

Proteus — (2012) microship in pill

Online Dr Evaluations

Yelp!

Vitals.com

Healthgrades

Rate MDs

Angie's List

Whitecoat.com.au



FIGURE 15.3: The tricorder device with detachable high-resolution scanner. Sources: (top) io9, accessed August 12, 2014, <http://io9.com/meet-the-teams-who-are-building-the-worlds-first-medic-1543000639>; and (bottom) Starbase 484, accessed August 12, 2014, <http://sb484.kersare.net/nova/index.php/wiki/view/page/24>.

Survey 2014

- 80% want doctor interactions via smartphone
- 69% prefer medical advice on mobile rather than office visit

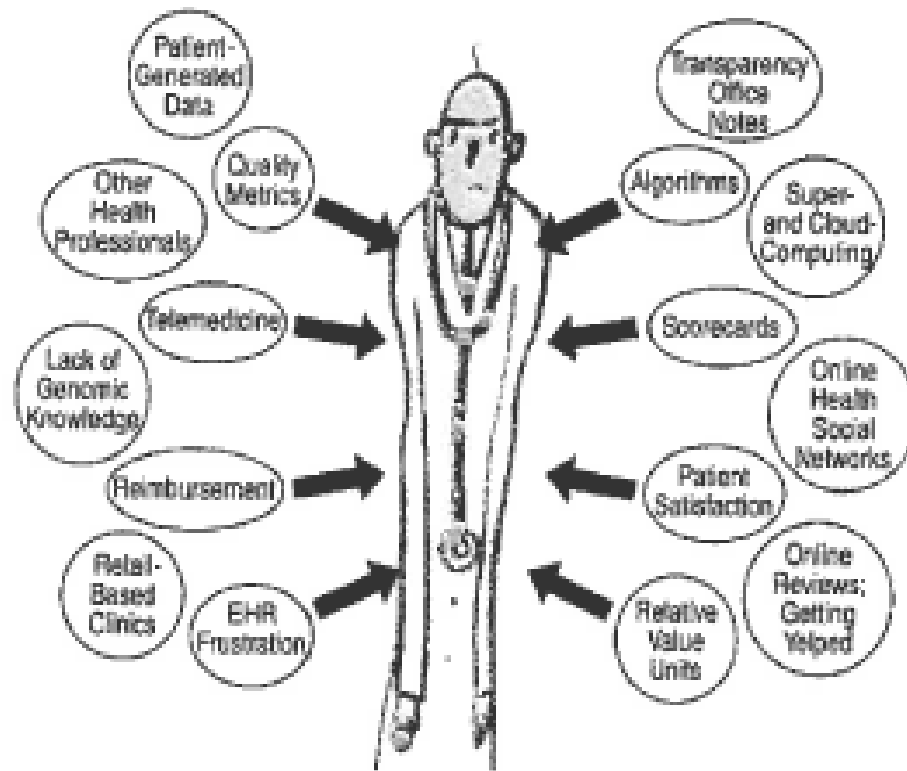
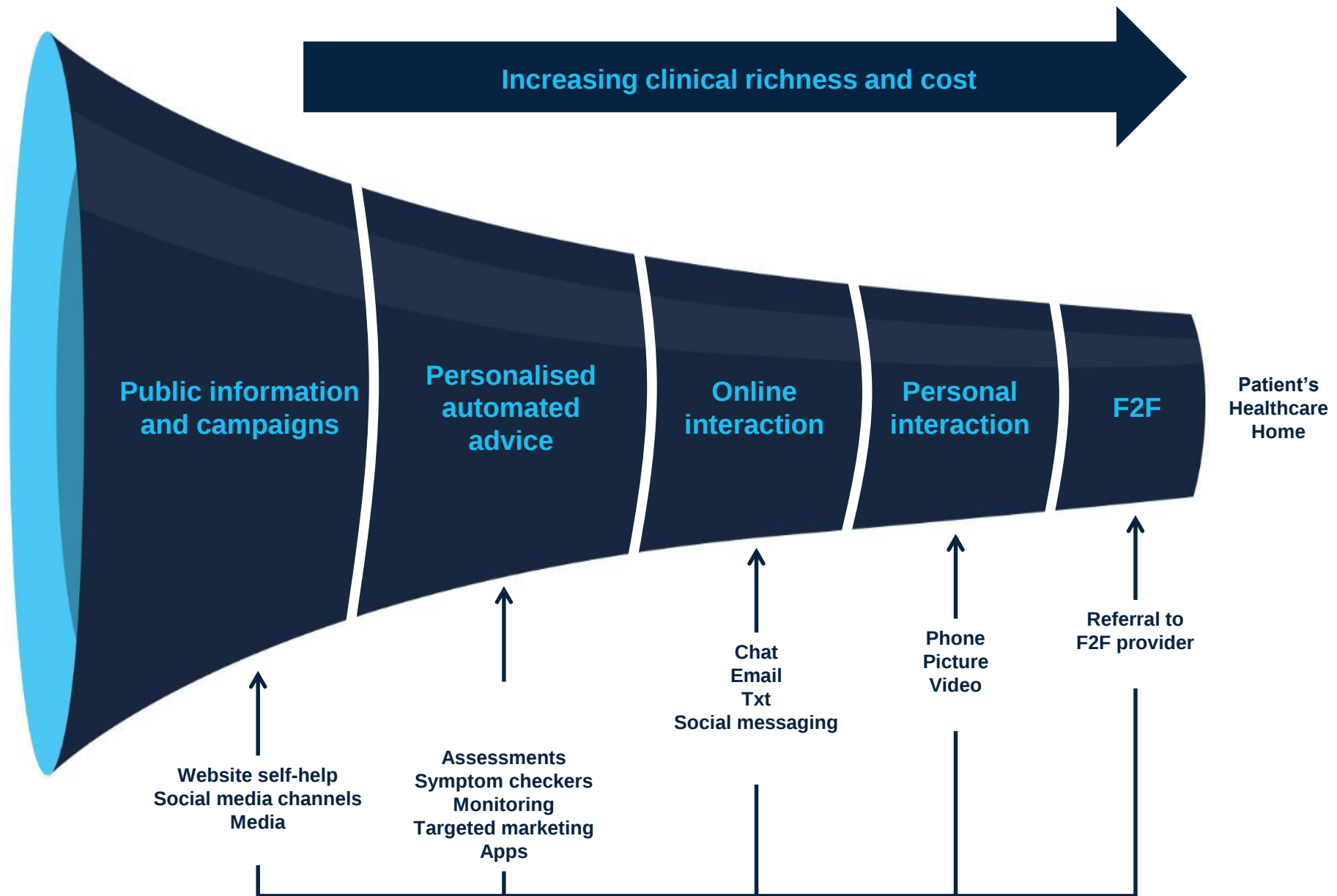
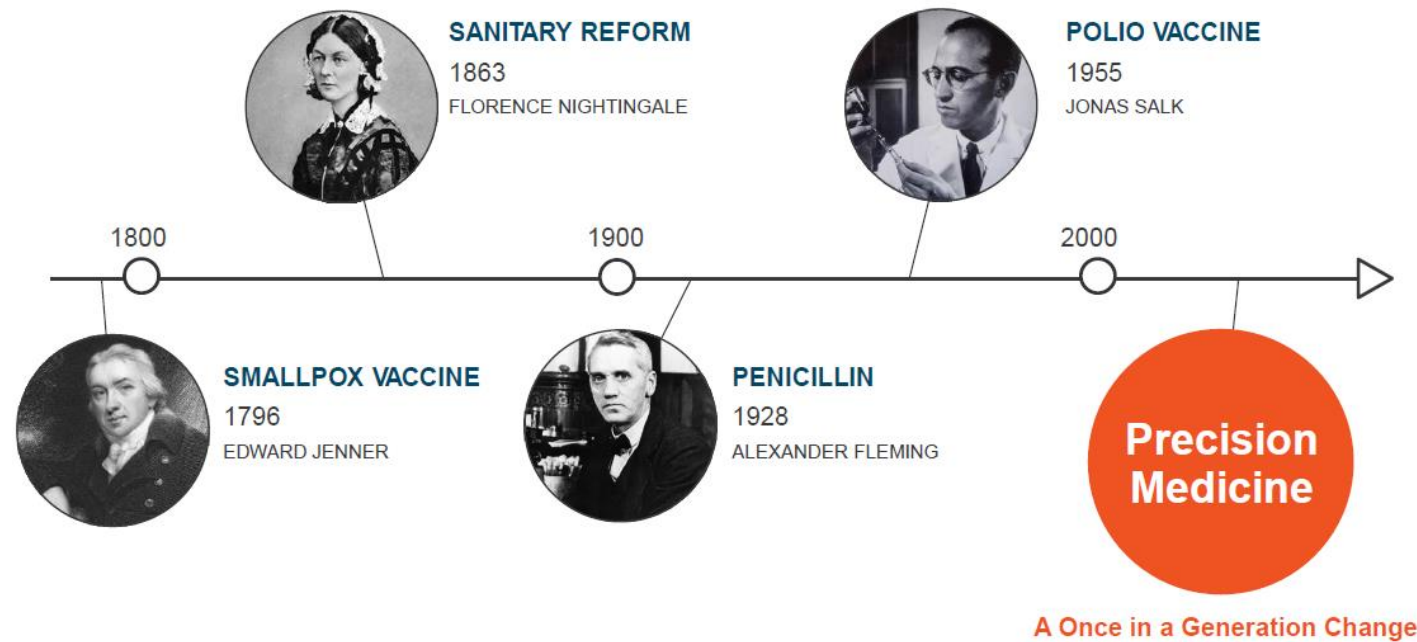
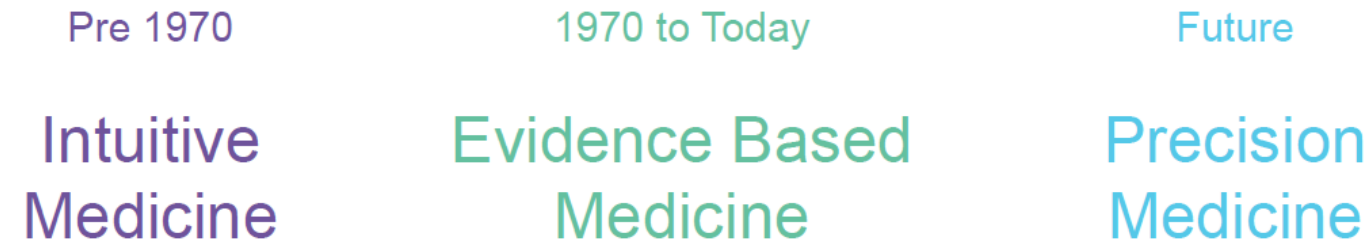


FIGURE 9.4: Doctors are getting squeezed like never before.



The Transformation of Healthcare....





**Why Most Published Research
Findings Are False ¹**

**Medicine Or Mass Murder?
Guideline Based on Discredited
Research May Have Caused
800,000 Deaths In Europe Over
The Last 5 Years ²**

1. John P. A. Ioannidis, PLoS Medicine | www.plosmedicine.org, Aug 05 2. Larry Husten – 15 Jan 2014

The Impossible Job of a Clinician...



Info from Dr Google
Missing Clinical Data



Soon...a Tsunami
of new data

101010110101010101010101010101001101
110101000101101010101011111010101101010
101010110101010101010101010101010

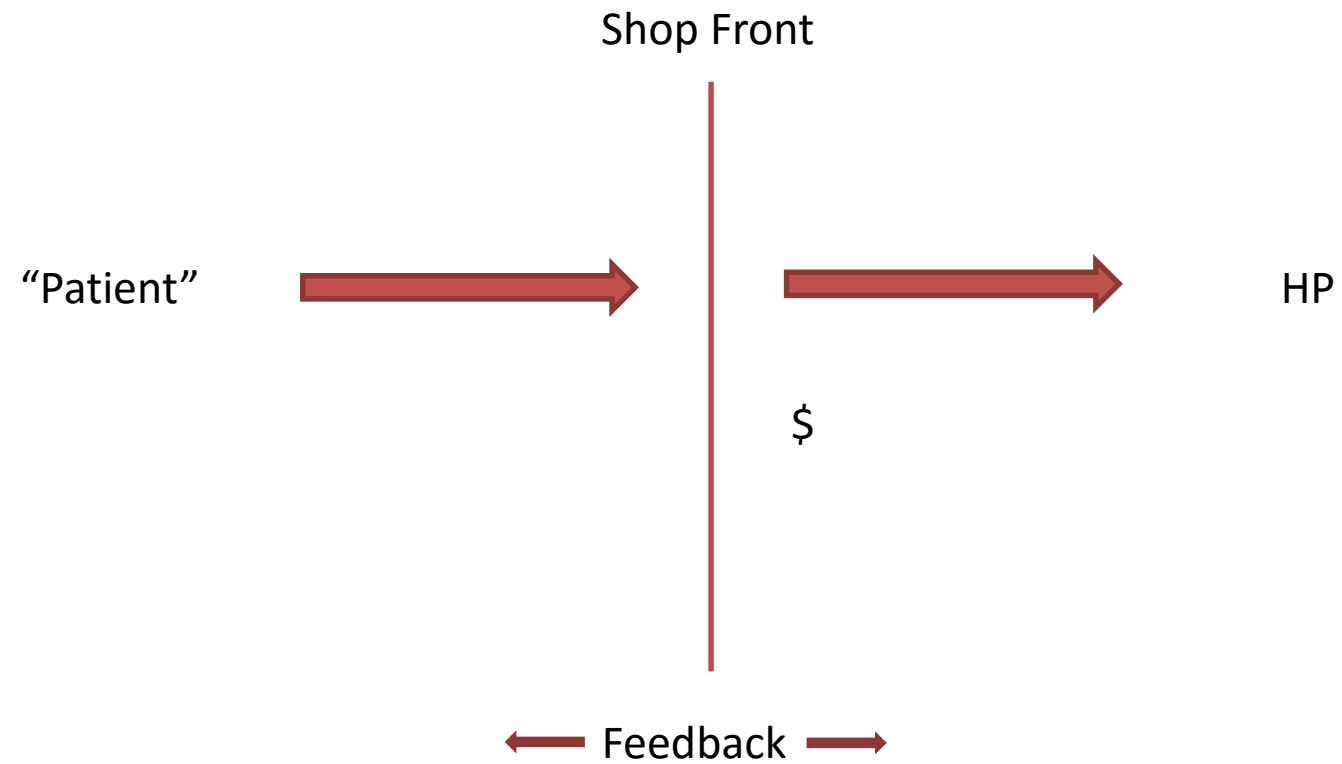
17 New Academic
research papers / day



“Evidence Based
Medicine”
decision
making...??

15
Minutes
to make a
decision





Paternalism vs Consumerism

* Informed Consent
vs
Informed Choice

Why trust ?

Patient Choice
vs
Vulnerable Patient

DECLARATION OF GENEVA

At the time of being admitted as a member of the medical profession:

I SOLEMNLY PLEDGE

to consecrate my life to the service
of humanity

I WILL GIVE

to my teachers the respect
and gratitude that is their due

I WILL PRACTISE

my profession with conscience
and dignity

THE HEALTH OF MY PATIENT

will be my first consideration

I WILL RESPECT

the secrets that are confided in me,
even after the patient has died

I WILL MAINTAIN

by all the means in my power,
the honour and the noble traditions
of the medical profession

MY COLLEAGUES

will be my sisters and brothers

I WILL NOT PERMIT

considerations of age, disease or
disability, creed, ethnic origin, gender,
nationality, political affiliation, race,
sexual orientation, social standing or
any other factor to intervene between
my duty and my patient

I WILL MAINTAIN

the utmost respect for human life

I WILL NOT USE

my medical knowledge to violate
human rights and civil liberties,
even under threat

I MAKE THESE PROMISES

solemnly, freely and upon my honour

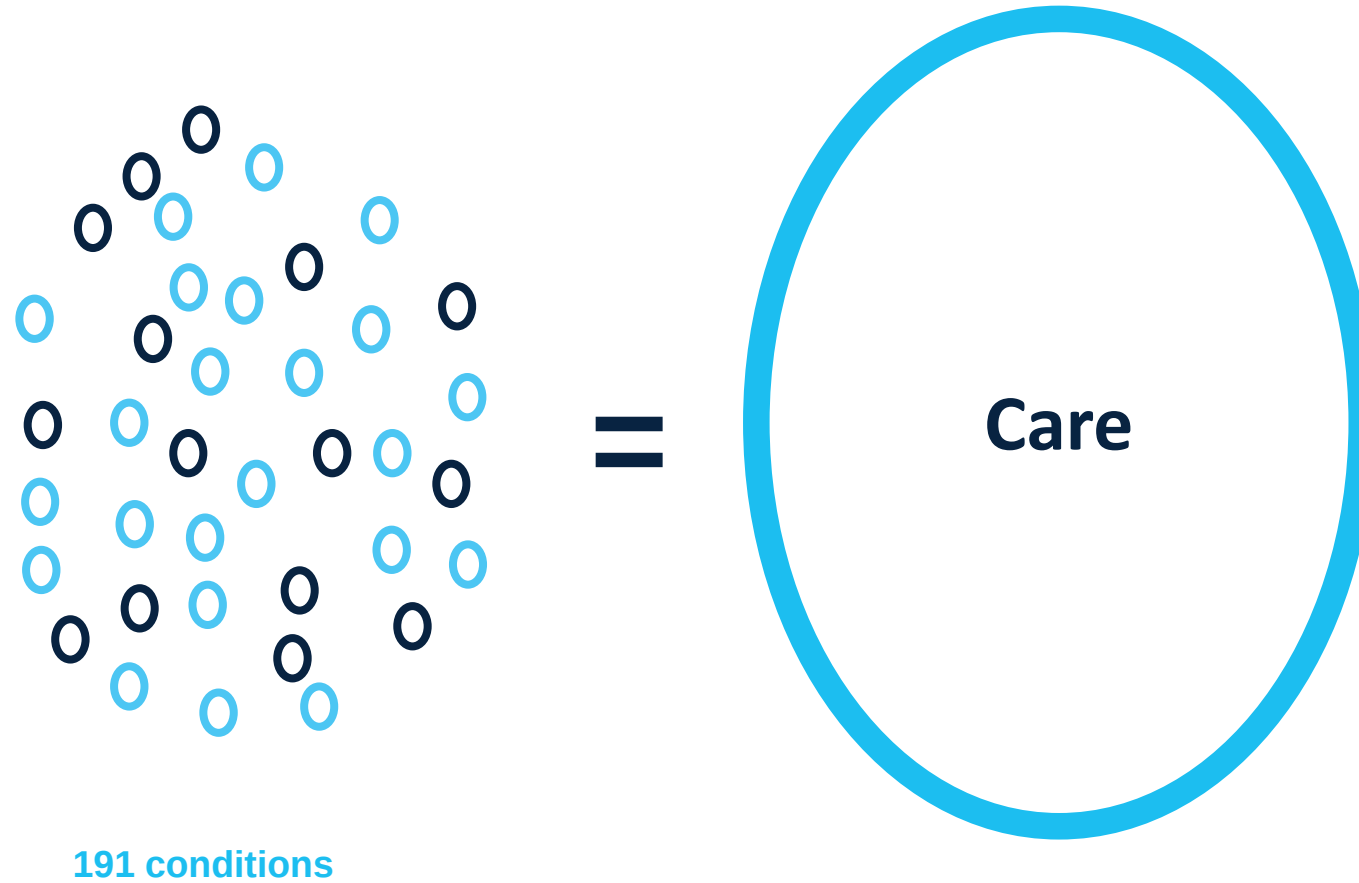
New Health Professional

1. “Customer focussed”
2. Transparent, shared decision making
3. “Care” not treatment

“New” Skills

1. Listen
2. Understand
3. Compassion

Care option 1: as per diagram



Caring!!

Dr Stephen Child
Chair, NZMA