



Dr Stephen Child

General Physician

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

Friday, August 12, 2016

(Plenary)

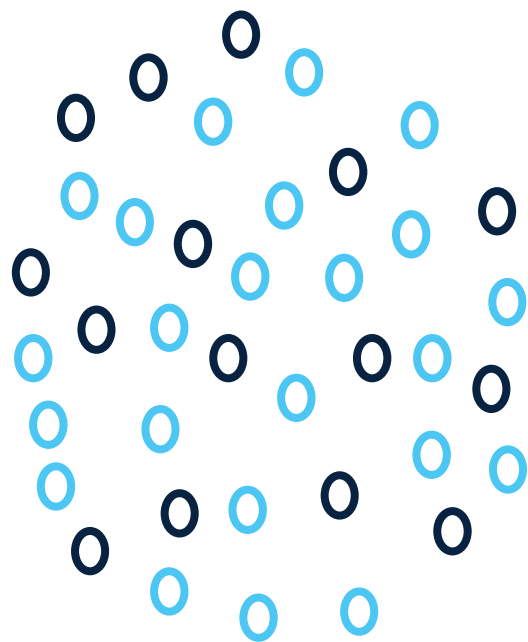
15:00 - 15:20 Doing Right with Pharma

Conflict of Interest

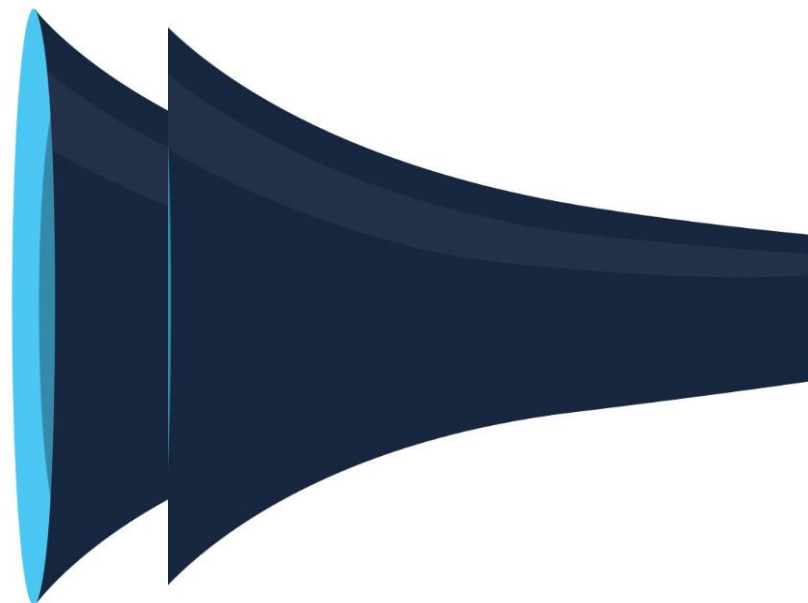
- Speaker Fees
 - AstraZeneca
 - Boehringer Ingelheim
 - Merck Sharp & Dohme
 - Pfizer
 - GlaxoSmithKline
- Chair New Zealand Medical Association
- Clinical Governance Group – Procure
PHO/Homecare Medical
- Treatment Injury Advisor - ACC

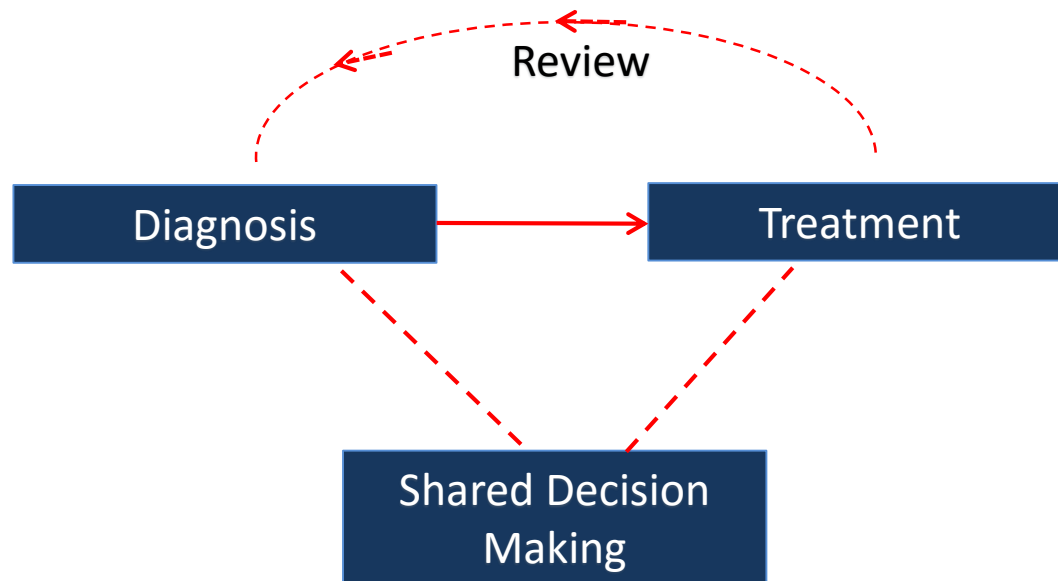
Doing Right with Pharma

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



191 conditions





“Buy a phone”



- Research
- Compare
- Published price
- Consumer regulation
- Only “price” risk
- “Free market”

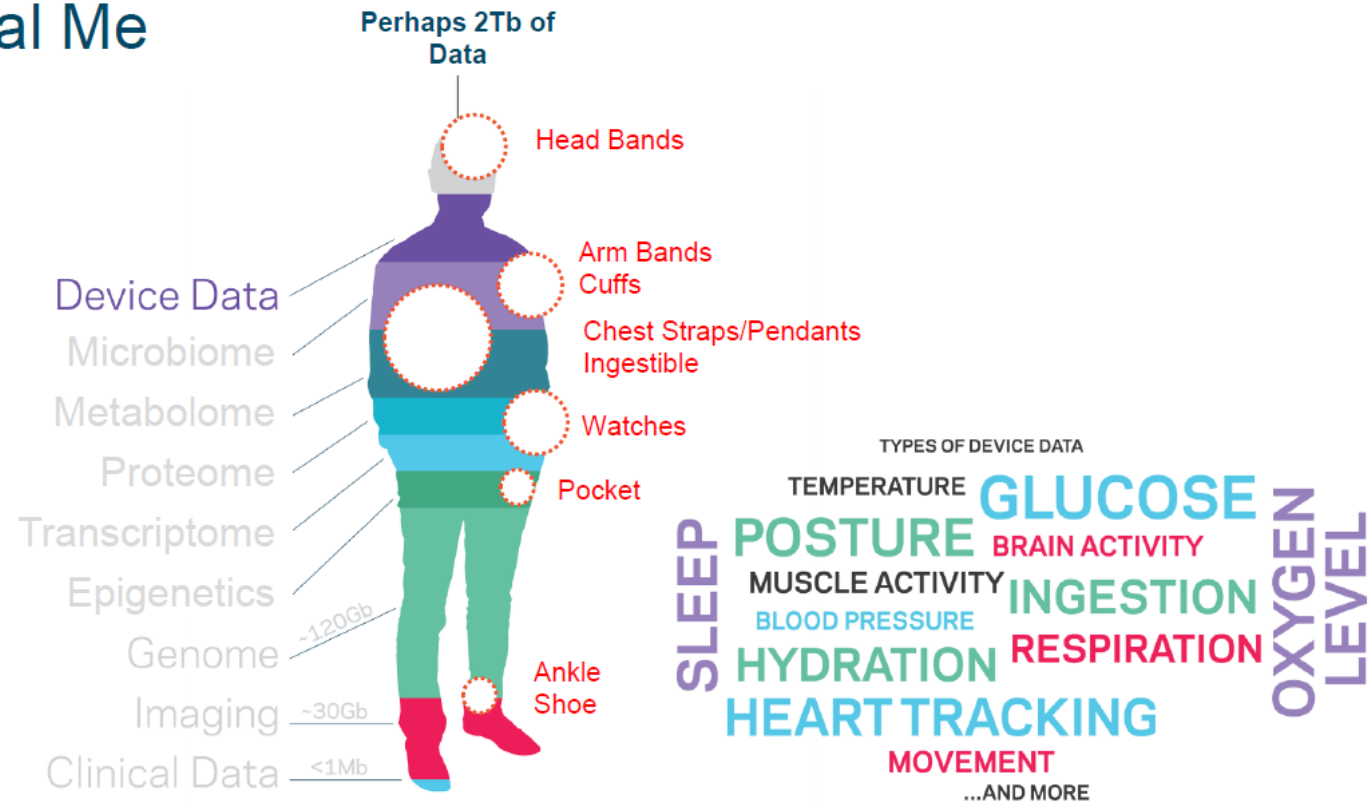
**Market Failure = Uninformed
Misinformed
Imbalance
High risk**

Chest pain = ? Market failure
Testicular lump
Skin Mole
Cough
Headache

Patient Genetics

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

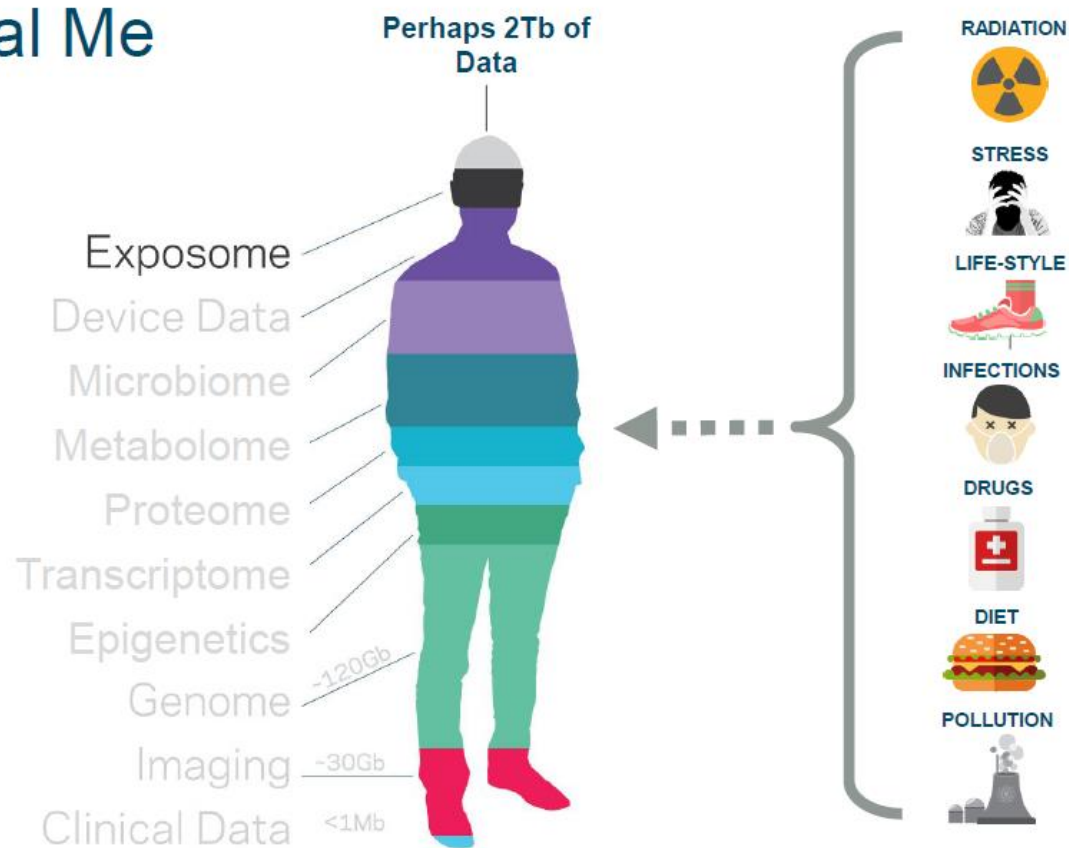
Digital Me



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



Digital Me

Social, Behavioral
and Environmental

Exposome

Device Data

Microbiome

Metabolome

Proteome

Transcriptome

Epigenetics

Genome

Imaging

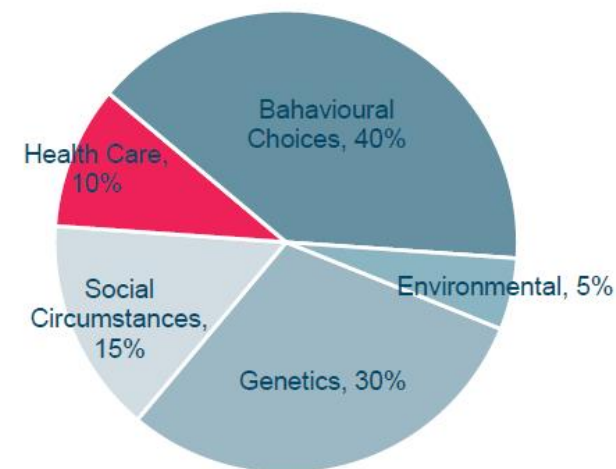
Clinical Data

Perhaps 2Tb of
Data

6Tb of Data

¹IBM Watson – Fortune 2016

Factors Influencing Health



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

LOC Plus!

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

Scanning/Exam

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

Patient Data

Bluebutton (2015)

>100 million people in US can access own data

Opennotes (2012)

EMRs could reduce doctor demand 4–9%

Bad Pharma™

Ben Goldacre

Bestselling author of Bad Science

How drug companies
mislead doctors and
harm patients

448 pages



-
1. Missing Data
 2. Innovation to Phase 3
 3. Bad Regulators
 4. Bad Trials
 5. Marketing

Missing Data

1. Industry Sponsored

- 1.5-20x more likely for positive results

2. Reboxetine

- 1 trial (n=254) out of 7 positive
- 6 out of 7 (n = >3000) negative – not published

3. Antidepressants

- 37/38 positive trials published
- 3/36 negative trials published
(and 2002,2003,2008 studies)

Missing Data

T. Sterling – 1959

- 268/294 studies in psych journals had statistically significant results.

Innovation to Market

- Only “safe” to regulators (vs. placebo)
- Non-representative “first-in-man” (homeless)
- CRO’S = Phase II – III (n = 300-2000)
 - = 115 countries \$20b (2010)
 - = > 50% trial outside US
 - = Only 11% China = ethics approval
 - 18% China = informed consent

Bad Trials

Fabrication

- Dr Scott Reuben – “created 20 trials”
- Non-opiates vs opiates

Representation (Generalisability)

- 2007 – reviewed 179 asthma trials
- Applied only to 6% of population!

Bad Trials

- Stop Early
- CLASS – celecoxib
 - Planned 12 month trial – stopped and published 6 months as better data
 - 2010 Review – 100 truncated trials have larger benefits than 400 duration trials

Bad Trials

Positive spin – 2009 review

- of 72 negative trials
 - only 16 reported negative outcome
 - only 9 listed “effect size” in abstract

Glaucoma

- 18/20 industry-sponsored “negative” trials spun
- 9/9 non-industry negative reported correctly

Bad Regulators

- Efficacy studies after regulation
- Regulatory “capture” – lobbying and paid by pharma
- Reluctance to “withdraw”
- FDA altered Declaration of Helsinki for CRO’s (2008)
 - GCP = good clinical practice
 - = No moral need to benefit patients
 - = No placebo restrictions

Marketing

- **\$60b US per year**

- NZ, US, Pakistan, South Korea = DTC ads

- Herceptin – 361 media articles

- 80% positive

- none negative

- Industry-sponsored patient stories

Marketing

- Doctor Ads
 - Systematic review – only 67% claims evidence supported
- Ghost writers
 - 2011 – 6 leading journals – 896 authors
 - Response rate 2/3rds
 - 8-12% ghost writers (?underestimate)
 - 2007 – Danish – 75% of articles
 - Eg Olanzapine – Lilly – Dr Peter Haddad

Informed Choice

Vs

Informed Consent

What can I do?

1. Shared decision making
2. Speak up for patients
3. Always question evidence – critically appraise
4. Avoid or declare sponsorship

....Ethical, professional practice mixed with caution and common sense.

Thank You

Dr Stephen Child
Chair, NZMA

Conflict of Interest

- Speaker Fees
 - AstraZeneca
 - Boehringer Ingelheim
 - Merck Sharp & Dohme
 - Pfizer
 - GlaxoSmithKline
- Chair New Zealand Medical Association
- Clinical Governance Group – Procare
PHO/Homecare Medical
- Treatment Injury Advisor - ACC