

Genomics: To PCP, or Not to PCP?



Carol R. Horowitz MD, MPH

Department of Population Health Science and Policy

Department of Medicine

Center for Health Equity and Community-Engaged Research

Icahn School of Medicine at Mount Sinai

-I receive no financial support from companies.

-There are no relationships that may lead to bias in my presentation.

Is *Genomics* Exceptional?

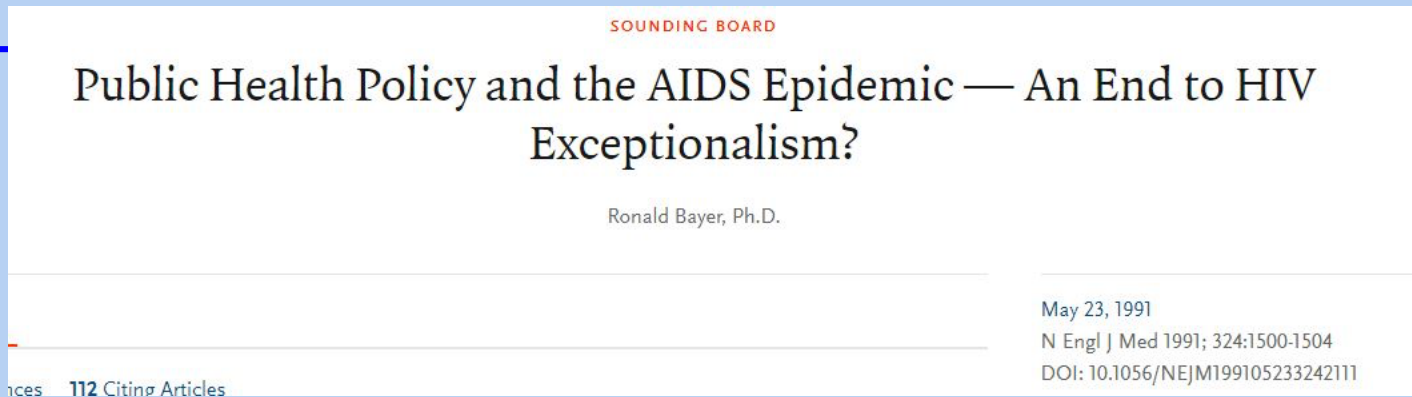
- Patient Perspective
 - It's predictive
 - Has meaning for family members
 - Can stigmatize
- Clinician Perspective
 - Ethical/consent/uncertainty challenges
 - Too much info for non-GM's to digest/keep up with
 - Too hard for non-GM'ers to understand/explain
 - Potential for missteps
- Yes, because GM providers think it is

Is [*fill in the blank*] Exceptional?

Is *HIV* Exceptional?

- Patient Perspective
 - It's predictive
 - Has meaning for family members
 - Can stigmatize
- Clinician Perspective
 - Ethical/consent/uncertainty challenges
 - Too much info for non-HIV docs to digest/keep up with
 - Too hard for non-HIV docs to understand/explain
 - Potential for missteps
- Yes, because HIV providers think it is

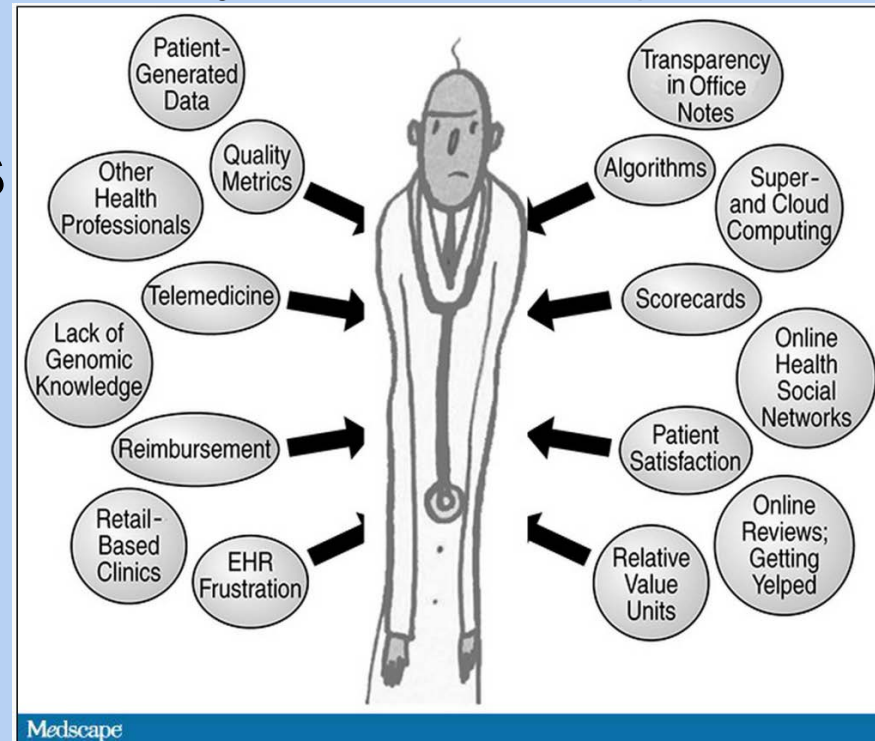
For PCP's, everything is/isn't exceptional



- 1980's HIV exceptionalism
 - PCP's not even allowed to do ROR's
 - Needed whole workforce of HIV testers/ROR'ers
 - Sound familiar?
- 2010's part of PCP arsenal
 - No informed consent, 1st line managed by PCPs
 - PCPs refer
 - Prevention, ROR, rx reinforcement → lay health workers (better!)
 - Complex, or MD, or Pt preference → HIV providers

Is Primary Care Exceptional?

- PCPs- trained, skilled in **1st contact & continuing care** for pts w/any sign, symptom, health concern.
- Explain complex things to & **partner w/diverse pts**
- **Uncertainty** common (like many GM results)
- Many new challenges →
- **Partner with specialists** while steering the ship



Genomics= TMI? PCPs do TMI!

Staying Current in Medicine: Advice for New Doctors

By *Elisabeth Poorman, MD*

Share This: [f](#) [t](#) [g+](#) [in](#) [✉](#) | November 10th, 2016



In 1950, doctors in practice could expect the total amount of medical knowledge to double every 50 years. By 2020, it will take **just 73 days**. How's a young doctor supposed to keep up while managing the hectic pace of practice?



NEJM Knowledge+ 2018

- Knowledge: Exponential increase
- Societal: Health Disparities, Disease Prevention, Aging Population, Social Determinants
- Technology: **genomics**, new imaging modalities, information science, QI
- Health Reform/Reimbursement

My Yesterday Morning (6/12 patients)

- **Refractory depression**
- **Metastatic lung cancer, pain**
- **Pancytopenia**
- **Hepatitis C**
- **DVT/PE**
- **Hypertension, microalbuminuria**

Genomics in play? Sure!



As one piece of BIG puzzle for PCP and patient

- **Refractory depression**, CAD, DM, CHF, blind*
- **Metastatic cancer**, hospice?*
- **Pancytopenia**, Jehovah's Witness**
- **Hepatitis C**, alcoholism, abused by husband, needs emergency shelter*
- **DVT/PE**, found out her grandfather is her father**
- **Hypertension, APOL1+**, Crohn's, scrotal abscess**

* Spanish- only speaking

**Black

NY Times 2017



PCPs Share and Handle Your Challenges

- TMI
 - 75,000 genetic tests on the market, 10 new daily.
 - solution = culling + informatics
- Ethical
 - A PCP's wheelhouse
- Some, not all of GM is too “hard”
 - We do easy stuff (PGx ~ renal function testing).
 - Time? Extenders (lay health workers,...)
 - Harder stuff- we refer: GM docs/GCs= our gurus.
 - Mistakes? Not unique to GM or primary care



Are PCP's Prepared?(n=488; rate 89%)

Survey Item	%
Had formal genetics course/training	79
Experience: Ordered gen test in last y*	36
Prepared:	
- For pts who had gen test for chronic dz.	25
- Confident interpreting test results	14
Concerned: Re insurance discrimination	53
Don't trust gen testing co's	76
Pt Response: Motivate behavior change	34%
Will try harder to control BP	69%
Will help prevent CKD	46%

>> than
their
patients

* Experience not associated with preparedness

How do PCPs do with some help?

ROR by GC-trained lay persons & PCPs.

Demographics n=2052; all AA

Age (mean years)	53
Low Health Literacy %	20
Education: ≤ HS %	44
Income <\$30,000 %	53



GUARDD

Genetic testing to Understand and
Address Renal Disease Disparities

- **100%** offered free in-person or telephone meeting with GC
- **0%** took us up on it

JGIM, 2017

	%
Got enough info to decide on test	95
Time getting info just right	95
Amount of info received just right	95
Info easy to understand	95
Satisfied w/MD discussion	96
Regret getting test	1
Would get tested again	96

Conclusions

- PCP's ***are*** central
 - No choice- patients come to us 1st, may bring tests to us
 - We can help patients, refer when we can't
 - help us do it right
 - We can help you w/patient care given our experience
 - >3500 lab tests; we order in 40% of encounters. AAFP 2014
 - We know how to simplify things
- Grow your workforce wisely
 - GC's where needed, help others do the rest
- Teamwork- we need each other to implement GM

Thank to partners, participants, funders

NHGRI
NHGRI
NCATS



and my friend
Gail



and thank you...



...from our team

