

❖ **Review Exercises**

❖ **Introducing...**

Social Epidemiology

→ Comprehensive Care

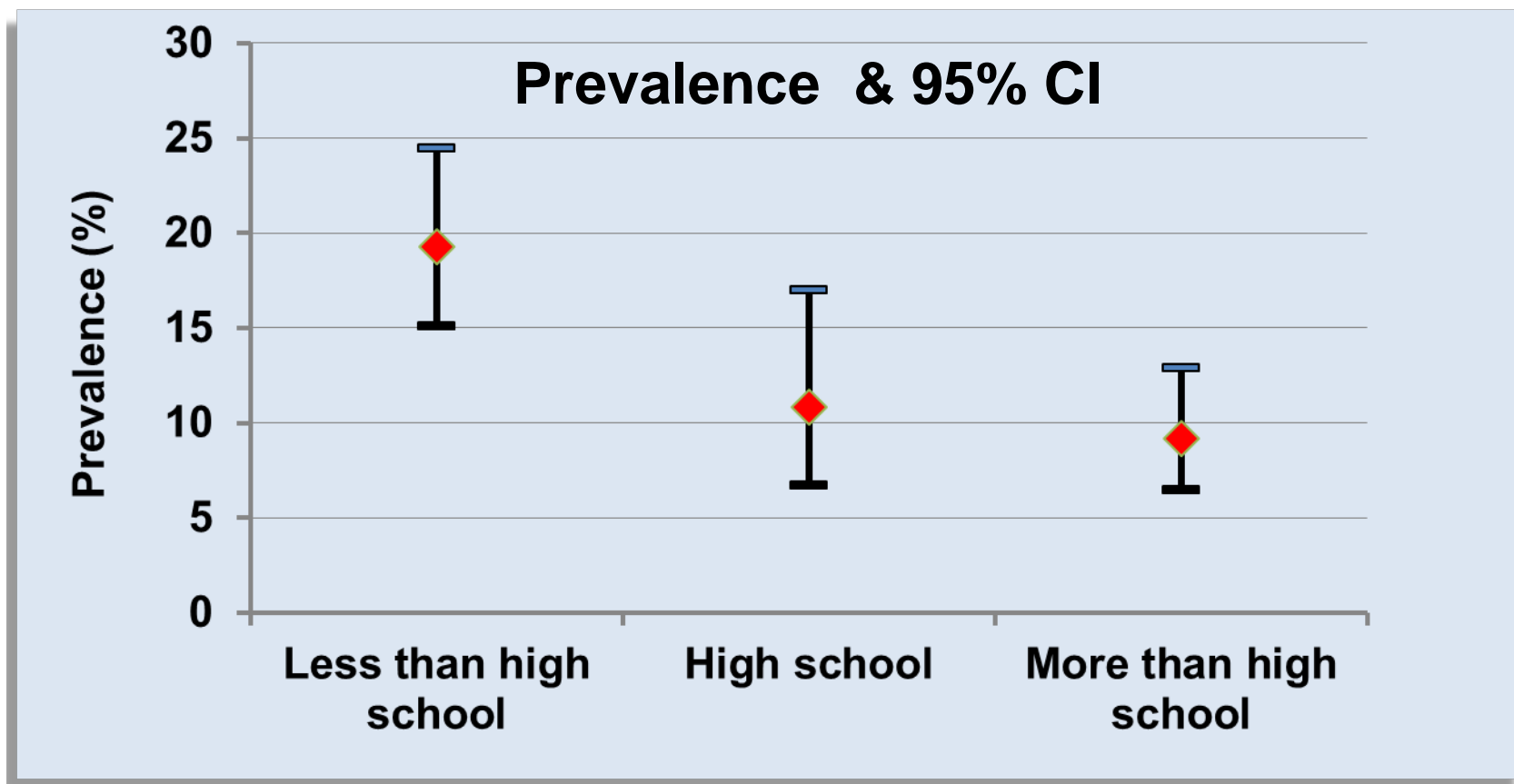
→ PDSA Cycle



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Aya Goto

Age Adjusted Prevalence of Diabetes* Among Adults by Education in NYC, 2004



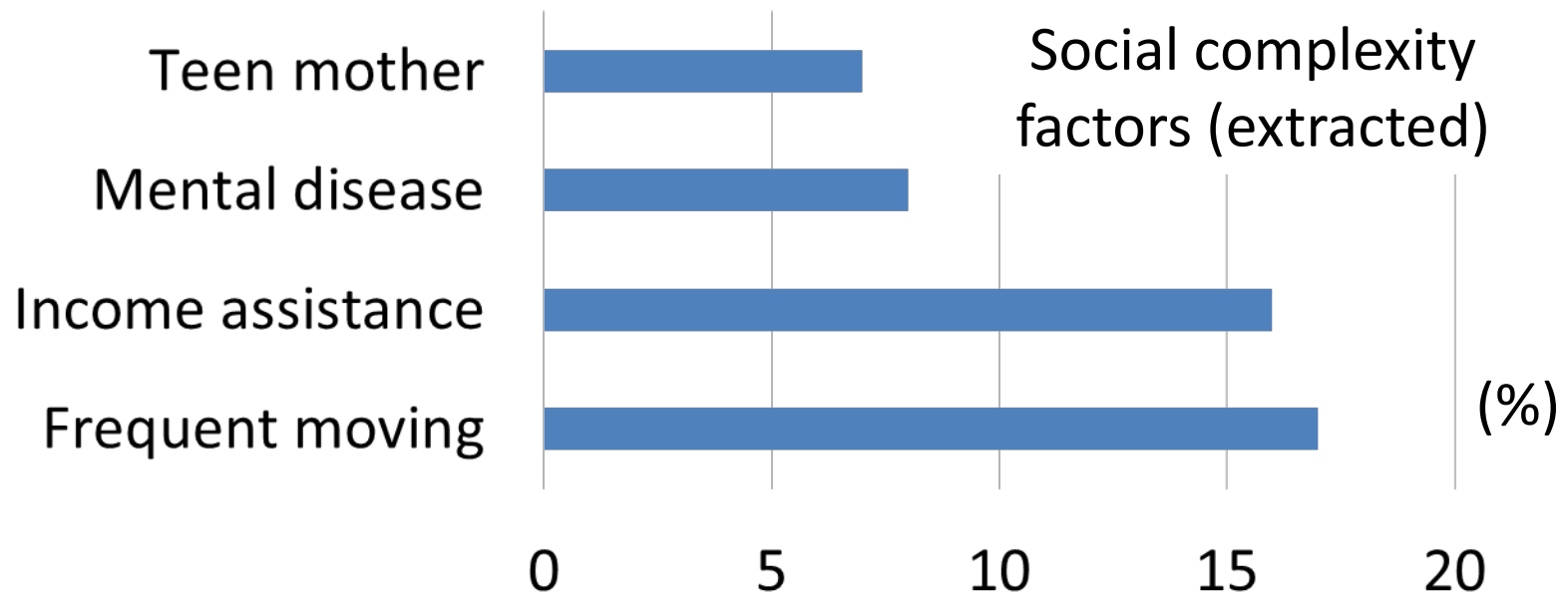
* (1) A fasting glucose of ≥ 126 mg/dL, or (2) report that a health care provider had told them that they had diabetes (other than during pregnancy for women).



- ❖ What is “prevalence”?
- ❖ What is “95%CI”?
- ❖ What is the main result?
- ❖ What is the clinical implication?

How would you change your practice?

Study among 626,264 patients receiving primary care in Canada



	0 factor	1 factor	2 factors	3 factors	4 factors	More than 5
Odds ratio of receiving eye examination in diabetes care	1.00	0.95	0.86	0.70	0.69	0.52

Katz A, et al. Association of the Social Determinants of Health With Quality of Primary Care. Ann Fam Med. 2018;16(3):217-224.



- ❖ What is this study design?
 - ❖ What is “odds ratio”?
 - ❖ What is the main result?
 - ❖ What is the clinical implication?
- How would you change your practice?

Health record strategy for comprehensive care

**Table 1. Institute of Medicine Phase 2 Report:
Summary of Candidate Domains for Inclusion in All
Electronic Health Records**

Race/ethnicity*

Education

Financial resource strain

Stress

Depression*

Physical activity

Nicotine use/exposure*

Alcohol use*

Social connections/social isolation

Exposure to violence: intimate partner violence

Neighborhood characteristics (eg, median income within
census tract)

*Already routinely captured in electronic health records.

Gold R, et al. Developing Electronic Health Record (EHR) Strategies
Related to Health Center Patients' Social Determinants of Health.
J Am Board Fam Med. 2017; 30(4): 428-447.



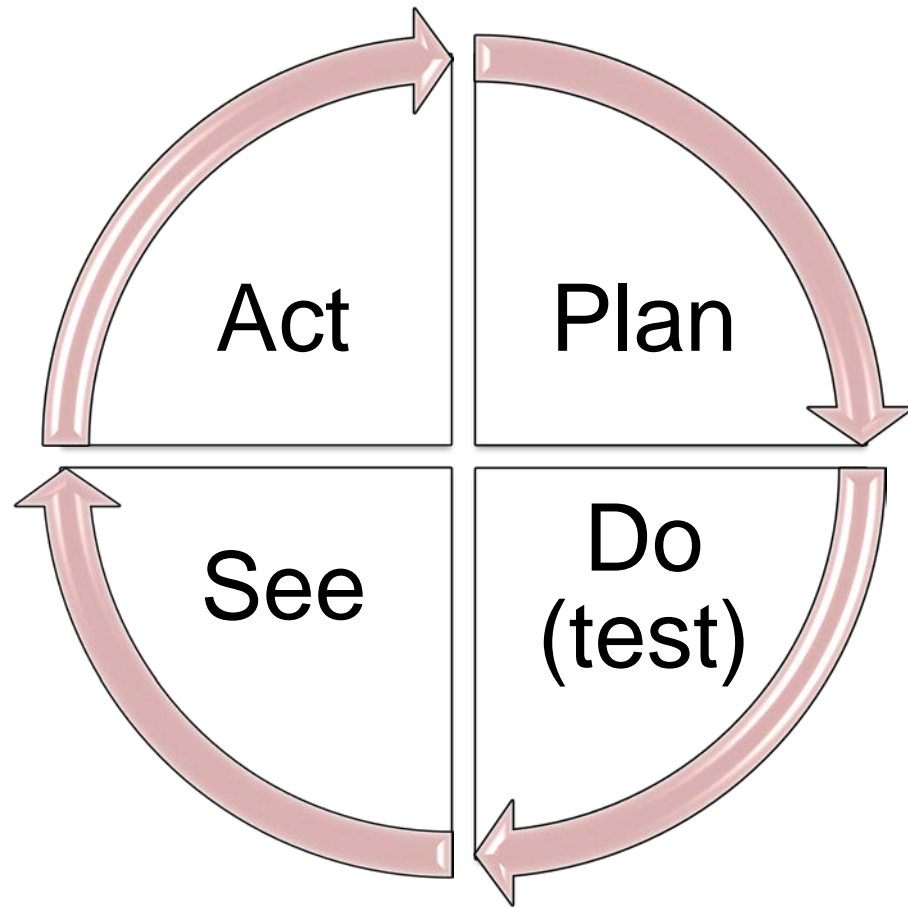
New outcomes for comprehensive care

“The World Health Organisation (WHO) in 1948 defined health as a "a state of complete physical, mental, and social well being not merely the absence of disease or infirmity". ... it clearly indicates what should be the goal of health care intervention. ... Modern medicine is slowly beginning to recognise the importance of the **perspective of the patient** in health care and more investigations are needed to understand the importance of the inter-relationships among health needs, satisfaction, and quality of life.”

Asadi-Lari M, et al. Patients' needs, satisfaction, and health related quality of life: Towards a comprehensive model. Health and Quality of Life Outcomes 2004; 2:32.



PDSA cycle: Implementing at the organizational level



Plan: Plan a change or test aimed at improvement

Do: Carry out the change on a small scale

Study: Examine the results

Act: Adopt the change, and run through cycle again

Taylor MJ, et al. Systematic review of the application of the plan–do–study–act method to improve quality in healthcare. *BMJ Qual Saf.* 2014; 23(4): 290-298.

Example of applying PDSA cycle

PLAN

Introducing auditing

DO

1. Three repeated audits of diabetes management by 15 GPs.
 - Diabetes management relating to screening for complications
 - Prescribing patterns to control blood sugar, BP and cholesterol
2. General practitioners reflected on the experience.

SEE

Changes in GP behaviors and patient outcomes over the 3 years

ACT

Implement the periodic auditing widely?

Wheatland B, et al. Initiating a PDSA cycle--improving management of diabetes in rural WA. Aust Fam Physician. 2006;35(8):650-652.



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❖ DO ← How do you design?

