

Wicked Problems in Healthcare: Emergency Department Overcrowding in Kelowna, B.C

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Thompson Rivers University | HLTH 5200 Student-Led Cafe



02. KEL-ED Health Literacy Screening Tool

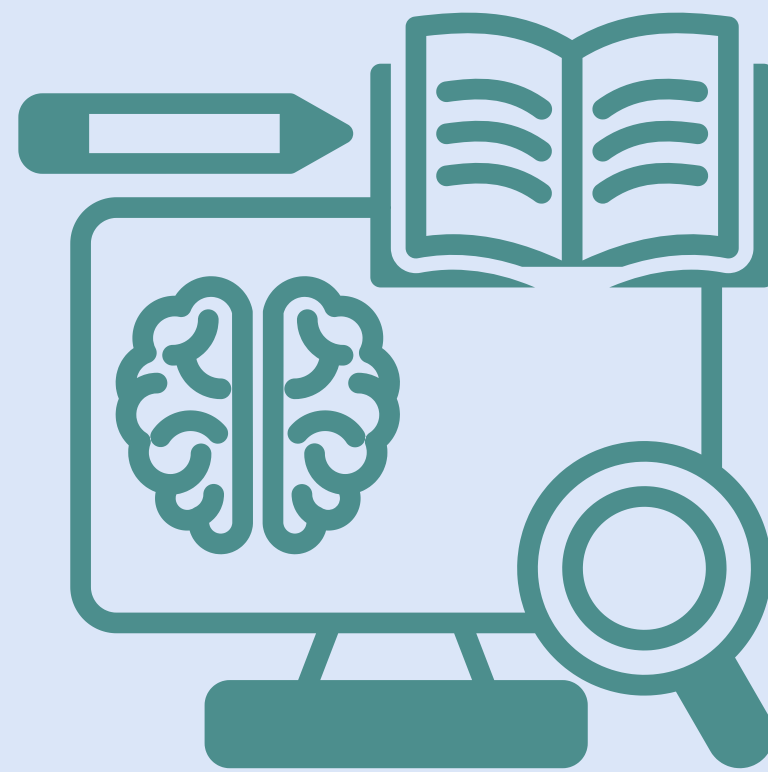
Reducing emergency department overcrowding
by implementing health literacy screening and
individualized care



HEALTH LITERACY

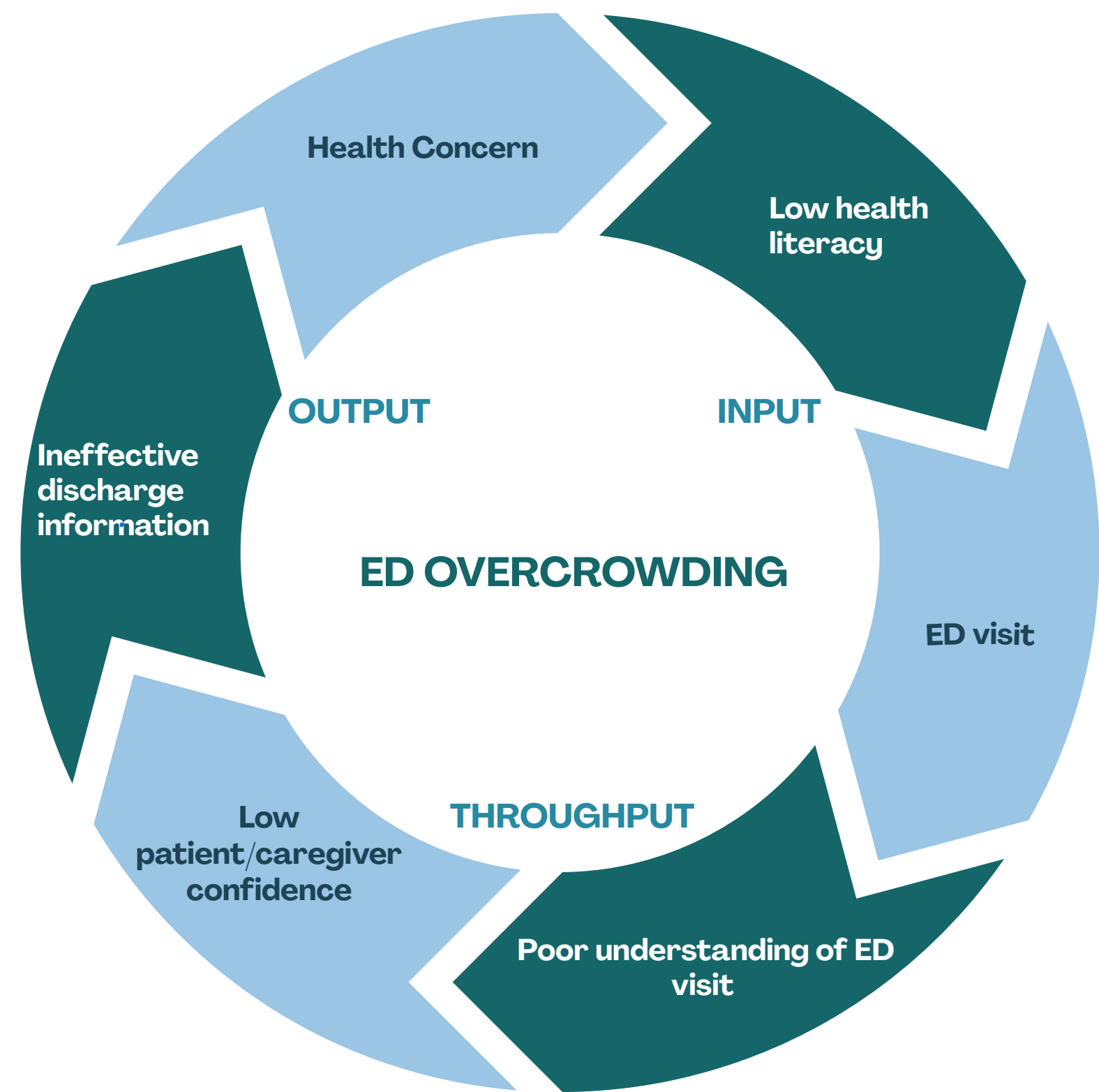
Health literacy is how well a person can find, understand, and use information about health to make good decisions for themselves and their family.

WHY DOES ADDRESSING HEALTH LITERACY MATTER?



- Ensures patients have access to accurate health information
- Encourages patient comprehension of medical information, instructions and health advice
- Evaluates relevance of health information
- Allows for application of health information
- Improves health outcomes

HEALTH LITERACY AND ED OVERCROWDING CYCLE



FATIMA AND SERGIO



The Need for Health Literacy Screening

No systematic early health literacy screening at KGH ED.

Existing visual aids and digital resources help with language but don't assess individual health literacy.

Health Literacy Screening & intervention can improve patient experience, comprehension, and reduce preventable ED readmissions.

The KEL-ED Screening Tool

KEL-ED (Kelowna Examining Literacy – Early Detection):

01

Digital, multilingual, user-friendly, and budget-friendly.

02

Quick (<3 min), visual/numeracy-based (rice label quiz).

03

Early detection enables tailored education/support.

04

Improves outcomes for at-risk groups.

Kelowna Examining Literacy - Early Detection (KEL-ED) Screening Tool

QUESTION

YES

NO

Nutrition Facts

Serving size1/4 cup (45g)

Amount per serving

Calories

160

% Daily Value*

Total Fat

0g

0%

Saturated Fat

0g

0%

Trans Fat

0g

Cholesterol

0mg

0%

Sodium

0mg

0%

Total Carbohydrate

36g

13%

Dietary Fiber

1g

4%

Total Sugars

0g

Includes 0g Added Sugars

0%

Protein

3g

Vitamin D

0mcg

0%

Calcium

0mg

0%

Iron

1mg

6%

Potassium

50mg

2%

Thiamin

0.2mg

15%

Niacin

2mg

15%

Folate

118mcg DFE

30%

(68mcg folic acid)

* The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.

INGREDIENTS: ENRICHED LONG GRAIN RICE [RICE, NIACIN, IRON (FERRIC ORTHOPHOSPHATE), THIAMIN (THIAMIN MONONITRATE), FOLIC ACID].

If you eat one cup of rice, how many calories will you eat? <i>Answer: 640 calories</i>		
If you are allowed to eat 75 grams of carbohydrates as a snack, how many cups of rice can you eat? <i>Answer: 1/2 cup of rice</i>		
If you eat 1/2 cup of rice, what percentage of your daily value of carbohydrates will you be eating? <i>Answer 26%</i>		
Your doctor wants to reduce your daily carbohydrate intake. You usually have 250 grams of carbohydrates/day which includes three ¼ cup servings of rice. If you reduce your rice intake to two ¼ cup servings/day, how many grams of carbohydrates are you consuming each day? <i>Answer 72 grams</i>		
Pretend that you are allergic to the following substances: penicillin, peanuts, latex gloves, and niacin. Is it safe for you to consume this rice? <i>Answer: No</i>		
Why not? <i>Answer: It is listed in ingredients</i>		

KEL-ED Screening Tool

⇒ **Purpose:** ⇐
**To assess patient's understanding
and application of health care
information and promote
informed decision-making**

Interpretation:

0-1 high likelihood of limited health literacy

2-3 possibility of limited health literacy

4-6 adequate health literacy

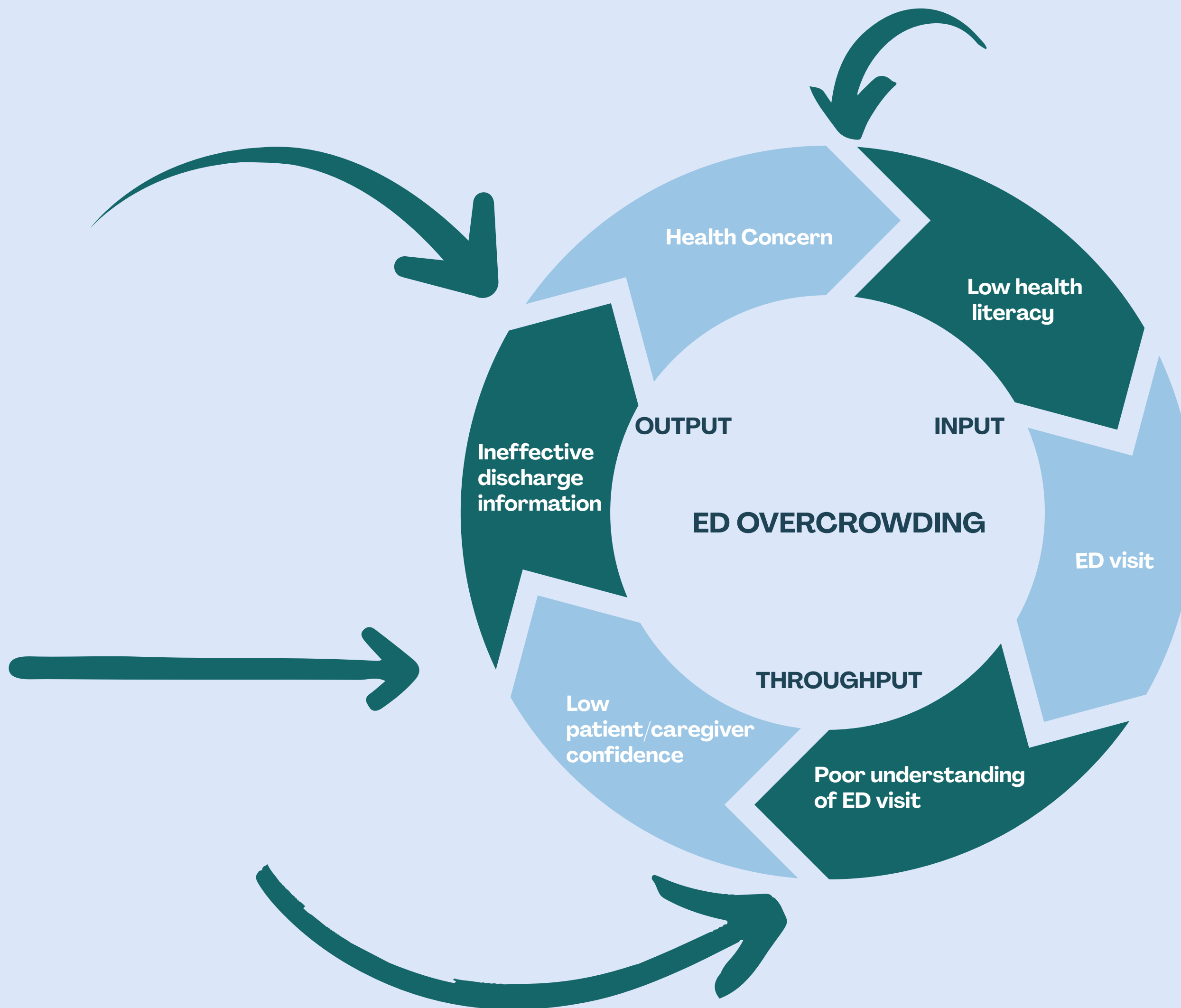
Hesselink et al. 2022; Mansfield et al., 2018; Pfizer, 2011



- Use plain language
- Focus on essential information
- Teach-back or show-me methods
- Visual aids
- Easy to read education materials
- Utilize multidisciplinary team
- Health information in various formats (print, digital, video, website)
- Multi-lingual options



Fatima & Sergio



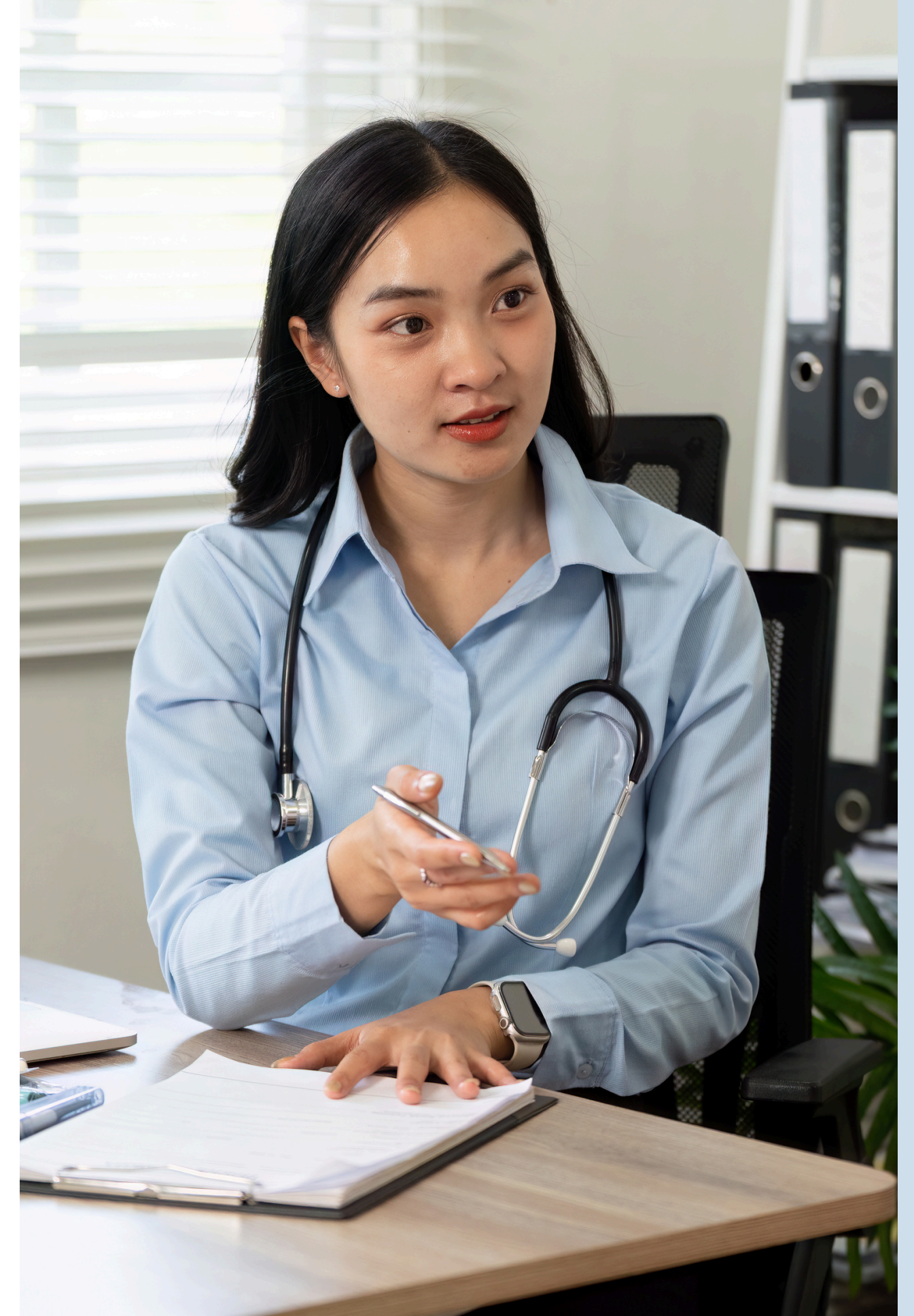
Measuring Success & Challenges

Strengths:

- Targeted communication
- Enhances throughput (wayfinding)
- Prevention of ED readmission
- Ease of integration into ED workflow
- Improves patient outcomes
- Cost savings

Challenges:

- Secondary prevention
- Time constraints/ED staff buy-in
- Screening tool limitations
- Patient stigma
- Implementation practicality



IMPLEMENTATION AND FEASIBILITY



- Adaptation of existing screening tool
- Short administration time
- Budget-friendly tools and training
- Ability to expand screening to other settings
- Evaluate metrics of ED readmission rate and patient satisfaction for cost-savings analysis (specific to KGH ED)

