

Communication and Health Literacy

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**GEC of Greater Philadelphia
Health Equity and Literacy Faculty Development Course
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Kinds of Literacy

Prose Literacy

health education pamphlets, consent forms, discharge instructions, magazine articles, contracts, fiction - poetry

Document Literacy

food guides, medication charts, graphs, application forms, transportation schedules - maps

Quantitative Literacy

thermometers, medication schedules, diabetic exchanges, recipes, food bills, order forms

Document - Level 4

On Saturday afternoon, if you miss the 2:35 bus leaving Hancock and Buena Ventura going to Flintridge and Academy, how long will you have to wait for the next bus?

ROUTE		VISTA GRANDE										
5		This bus line operates Monday through Saturday providing local service to most neighborhoods in the northeast section. Buses run thirty minutes apart during the morning and afternoon rush hours Monday through Friday. Buses run one hour apart at all other times of day and Saturday. No Sunday, holiday or night service.										
		OUTBOUND from Terminal					INBOUND toward Terminal					
Leave Downtown Terminal	Leave Hancock and Buena Ventura	Leave Clade	Leave Rustic Hills	Leave North Carlsree and One Blanco	Arrive Flintridge and Academy	Leave Flintridge and Academy	Leave North Carlsree and One Blanco	Leave Rustic Hills	Leave Clade	Leave Hancock and Buena Ventura	Arrive Downtown Terminal	
AM	6:20	6:35	6:45	6:50	7:03	7:15	6:27	6:42	6:47	6:57	7:15	
	6:50	7:05	7:15	7:20	7:33	7:45	6:45	6:57	7:12	7:17	7:45 Monday through Friday only	
	7:20	7:35	7:45	7:50	8:03	8:15	7:15	7:27	7:42	7:47	8:15	
	7:50	8:05	8:15	8:20	8:33	8:45	7:45	7:57	8:12	8:17	8:45 Monday through Friday only	
	8:20	8:35	8:45	8:50	9:03	9:15	8:15	8:27	8:42	8:47	9:15	
	8:50	9:05	9:15	9:20	9:33	9:45	8:45	8:57	9:12	9:17	9:45 Monday through Friday only	
	9:20	9:35	9:45	9:50	10:03	10:15	9:15	9:27	9:42	9:47	10:15	
	9:50	10:05	10:15	10:20	10:33	10:45	9:45	9:57	10:12	10:17	10:45 Monday through Friday only	
	10:20	10:35	10:45	10:50	11:03	11:15	10:15	10:27	10:42	10:47	11:15	
	10:50	11:05	11:15	11:20	11:33	11:45	11:15	11:27	11:42	11:47	12:15	
	11:20	11:35	11:45	11:50	12:03	12:15	12:15	12:27	12:42 p.m.	12:47 p.m.	12:57 p.m.	
PM	12:20	12:35	12:45	12:50	1:03	1:15	1:15	1:27	1:42	1:47	2:15	
	1:20	1:35	1:45	1:50	2:03	2:15	2:15	2:27	2:42	2:47	3:15	
	2:20	2:35	2:45	2:50	3:03	3:15	3:15	3:27	3:42	3:47	4:15	
	2:50	3:05	3:15	3:20	3:33	3:45	3:45	3:57	4:12	4:17	4:45 Monday through Friday only	
	3:20	3:35	3:45	3:50	4:03	4:15	4:15	4:27	4:42	4:47	5:15	
	3:50	4:05	4:15	4:20	4:33	4:45	4:45	4:57	5:12	5:17	5:45 Monday through Friday only	
	4:20	4:35	4:45	4:50	5:03	5:15	5:15	5:27	5:42	5:47	6:15	
	4:50	5:05	5:15	5:20	5:33	5:45	5:45	5:57	6:12	6:17	6:45 Monday through Friday only	
	5:20	5:35	5:45	5:50	6:03	6:15						
	5:50	6:05	6:15	6:20	6:33	6:45						
	6:20	6:35	6:45	6:50	7:03	7:15						

To be sure of a smooth transfer, call the driver of this bus the name of the second bus you board.

Inner Circle

Grain, Starch & Sugar Group

Whole grain cereal, unsweetened	3/4 cup
Cooked cereal	1/2 cup
Brown rice	1/3 cup
Whole wheat pasta	1/2 cup
Beans, peas, lentils, lima beans	1/3 cup
Corn and sweet peas	1/2 cup
Whole wheat bread	1 slice
Whole wheat bread, light	2 slices
White potato	1 small (3 oz.)
Mashed potato, no fat	1/2 cup
Sweet potato	1/2 cup (3 oz.)

Vegetable Group

All non-starchy vegetables	1/2 cup
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Fruit

Cut up fruit	3/4 cup
Piece of fruit	1 small to medium piece
Dried fruit	2 Tbsp.-1/4 cup

Protein

Beans, lentils, split peas	2/3 cup	1 pro	1 sta
Tofu	3 oz.	1 pro	
Natural peanut butter	4 tsp.	1 pro	1 fat
Fish, white	2 oz.	1 pro	
Fish, fatty (salmon)	1 oz.	1 pro	
Tuna fish	1/4 cup	1 pro	
Egg white	3	1 pro	
Egg substitute	1/4 cup	1 pro	

Milk & Yogurt

Skim milk	1 cup
Yogurt, nonfat plain or "light"	1 cup
Dry nonfat milk	1/3 cup
Low-fat, low-sugar soy milk	1 cup

Fat

Olive, canola, peanut oil	1 tsp.
Olives, green	10
Natural peanut butter	2 tsp.
Nuts	1 Tbsp.
Seeds (Pumpkin, Sunflower, Flax)	1 Tbsp.

Middle Circle

Grain, Starch & Sugar Group

Ready-to-eat cereal, unsweetened	3/4 cup
Pasta	1/2 cup
White rice	1/3 cup
White bread	1 slice
White bread, light	2 slices
Tortilla, 6-inch diameter	1 item
English muffin, roll, or bun	1/2 item
Saltine-type crackers	6
Rice cakes	2
Frozen bagel	1/2 item
Fresh bagel	1/4 item

Vegetable Group

Vegetable juice	1/2 cup
Tomato sauce	1/3 cup

Fruit

Fruit juice	1/2 cup
Fruit cocktail, in water or juice	1/2 cup
Canned fruit, in water or juice	1/2 cup

Protein

Lean beef (eye round, sirloin)	1 oz.
Lean veal (most cuts)	1 oz.
Lean pork (tenderloin, center loin)	1 oz.
Chicken/turkey no skin	1 oz.
Low-fat cheese	1 oz.
Fat-free cheese	2 oz.
Low-fat cottage cheese	1/4 cup
Low-fat luncheon meat, 95-98% lean	1 oz.
Grated parmesan cheese	2 Tbsp.

Milk & Yogurt

1% milk	1 cup
Low-fat plain yogurt	1 cup
Soy milk (less than 18 grams sugar and less than 3 grams fat)	1 cup

Fat

Salad dressing, vinaigrette	1 Tbsp.
Diet salad dressing, vinaigrette	2 Tbsp.
Most vegetable oils	1 Tsp.

Outer Circle

Grain, Starch & Sugar Group

Sugar	5 tsp.	1 starch	
Sweetened cereal	1/2 cup	1 starch	
Soda, iced tea	12 oz.	2 starch	
Low-fat cookies	2	1 starch	
Frozen yogurt	1/3 cup	1 starch	
Cookies	2	1 starch	1 fat
Cake, no icing	1/12 cake	2 starch	2 fat
Ice cream	1/2 cup	1 starch	2 fat
Chocolate	1 oz.	1 starch	1-1/2 fat
French fries	10	1 starch	1 fat
Snack chips	1 oz.	1 starch	1 fat

Vegetable Group

Deep-fried Vegetables	variable		variable
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Fruit

Fruit punch	1/2 cup
Fruit canned, in syrup	1/3 cup

Protein

Egg	1	1 pro.	1/2 fat
Beef, chuck	1 oz.	1 pro.	1/2 fat
Lamb, pork, other cuts	1 oz.	1 pro.	1/2 fat
Chicken/turkey with skin	1 oz.	1 pro.	1 fat
Ribs, sausage	1 oz.	1 pro.	2 fat
Luncheon meat	1 oz.	1 pro.	2 fat
Hot dog	1 oz.	1 pro.	2 fat
Regular cheese	1 oz.	1 pro.	2 fat

Milk & Yogurt

Milk 2%	1 cup	1 milk,	1 fat
Whole milk	1 cup	1 milk	1-1/2 fat
Low-fat fruit yogurt	1 cup	1 milk	1 fruit, 1 sta.
Whole soy milk	1 cup	1 milk	1 fat

Fat

Margarine, mayo	1 tsp.
Diet margarine/mayo	1 Tbsp.
Butter	1 tsp.
Cream cheese	1 Tbsp.
Sour cream	2 Tbsp.

Nutrition Facts

Serving Size 1/2 cup (114g)

Servings Per Container 4

Amount Per Serving

Calories 90 **Calories from Fat** 30

% Daily Value*

Total Fat 3g **5%**

Saturated Fat 0g **0%**

Cholesterol 0mg **0%**

Sodium 300mg **13%**

Total Carbohydrate 13g **4%**

Dietary Fiber 3g **12%**

Sugars 3g

Protein 3g

Vitamin A 80% • Vitamin C 60%

Calcium 4% • Iron 4%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Fiber		25g	30g

Calories per gram:

Fat 9 • Carbohydrate 4 • Protein 4

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Health Care Yesterday and Today

Asthma

Before

- theophylline pills

Now

- inhalers with spacers
- know the difference between controller and rescue medications
- test your peak flow rates on a daily basis
- take tapering doses of prednisone
- identify and eliminate allergens in your home

The Health Care Experience of Patients With Low Literacy

Problems repeatedly mentioned

- deep sense of shame, reinforced by hospital staff
- difficulty reading signs and locating places
- intimidation of filling forms
- frequency of medication errors

Baker, Parker et al, 1996
Emory University School of Medicine
Harbor - UCLA Medical Center

Arch Fam Med, 1996

Inadequate Functional Health Literacy

ER patients (n=2659)

- **English speaking (n=1892)**
- **Spanish speaking (n=767)**

Two large urban public hospitals

Test of Functional Health Literacy in Adults (TOFHLA)

Williams, Parker, Baker et al
Emory University School of Medicine
Harbor - UCLA Medical Center
JAMA, 1995

Test of Functional Health Literacy (TOFHLA)

Includes commonly used medical texts:

- upper GI radiographic series
- patient “Rights and Responsibilities”
- consent forms
- prescription labels
- blood glucose test results
- appointment slips
- financial information forms

Williams, Parker, Baker et al
Emory University School of Medicine
Harbor - UCLA Medical Center
JAMA, 1995

Test of Functional Health Literacy (TOFHLA)

	<u>%Incorrect</u>		
	<u>Inadequate</u> n=775	<u>Marginal</u> n=363	<u>Adequate</u> n=1521
<u>Numeracy Test Items</u>			
Take 4x/day	23.6	9.4	4.5
Take on empty stomach	66.3	52.1	23.9
Number of pills to take	69.9	33.7	13.0
Number of refills	42.0	24.7	9.6
Next appointment	39.6	12.7	4.7
Financial eligibility	74.3	49.0	31.5

Test of Functional Health Literacy (TOFHLA)

	<u>%Incorrect</u>		
	<u>Inadequate</u> n=775	<u>Marginal</u> n=363	<u>Adequate</u> n=1521
<u>Prose Literacy Test Items</u>			
Instructions for GI test	57.2	11.9	3.6
Rights and Responsibilities	81.1	31.0	7.3
Informed consent	95.1	72.1	21.8

Test of Functional Health Literacy (TOFHLA)

1/4 could not correctly describe their medical problem

1/4 could not state directions for a prescribed medication

1/2 did not understand a change in direction

3/4 with new prescriptions could not explain their use

1/2 did not know the purpose of their medicine

Test of Functional Health Literacy (TOFHLA)

Yet....

9/10 believed they had a good understanding of their treatment

**Williams, Parker, Baker et al
Emory University School of Medicine
Harbor - UCLA Medical Center
JAMA, 1995**

Literacy and Health

Asthma Study

<u>ER +Clinic Patients</u> n=483	<u>%Correct</u>			
	<u>3rd</u>	<u>4-6</u>	<u>7-8</u>	<u>HS</u>
Best to wait and see whether symptoms go away on their own before taking “as needed” asthma medicine	45	71	79	84
Doesn't really matter how an asthmatic uses their puffer. It will still deliver a useful dose.	48	68	82	95
Asthma medicines have no side effects	42	67	78	90