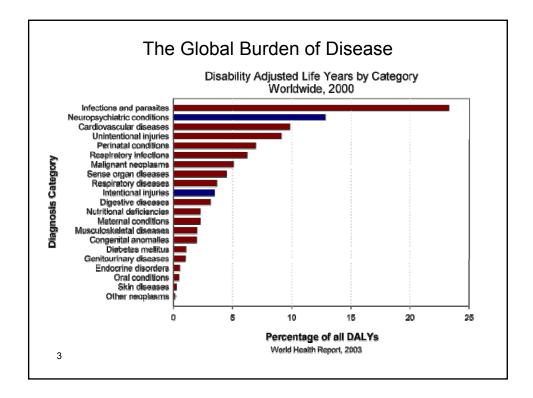
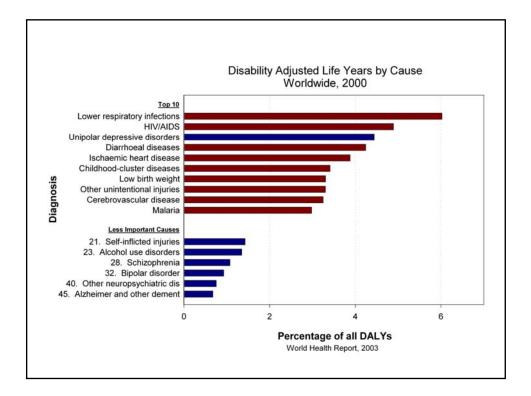
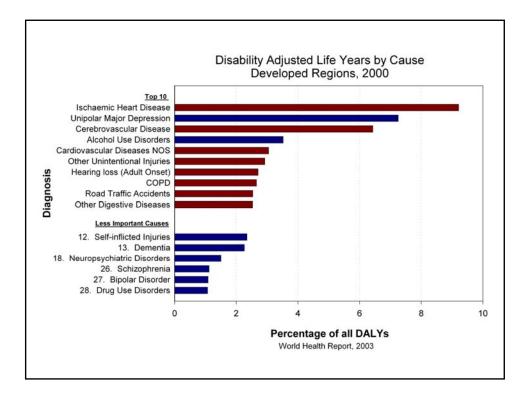
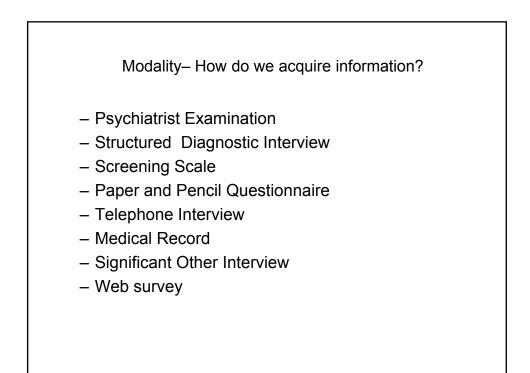


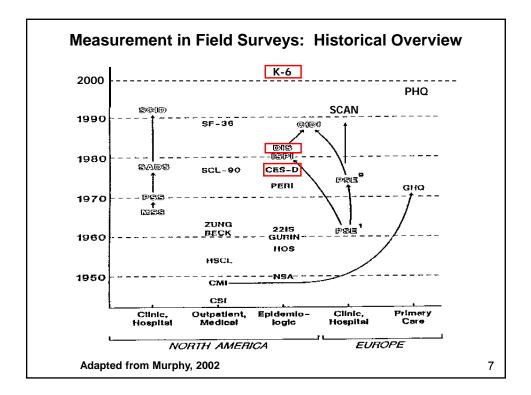
	Outline
•	Direct Estimation of Need
	 Outcomes and measures
	Psychological distress
	– E.g., K-6
	Specific Mental Disorders
	 E.g., DIS; Panic Disorder
	Screening for disorders
	– E.g., CESD-R
	– Surveys
	• CPES
	• NESARC
	- Facilities
	Registers
	Local studies
•	Indirect Estimation of Need
	 Synthetic Estimation
	 Bayesian Adjusted Estimation
•	The Relationship of Needs Assessment to Prevalence











The K-6: National Health Interview Surveys (NHIS)

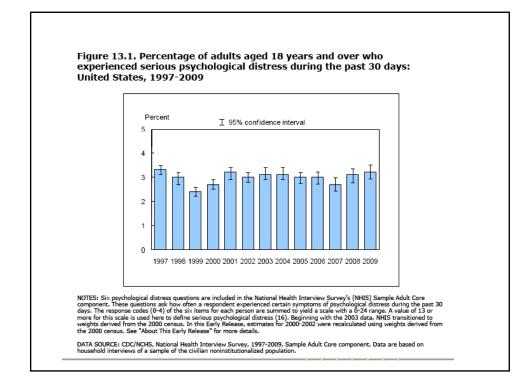
NHIS data are collected annually from approximately 43,000 households including about 106,000 persons

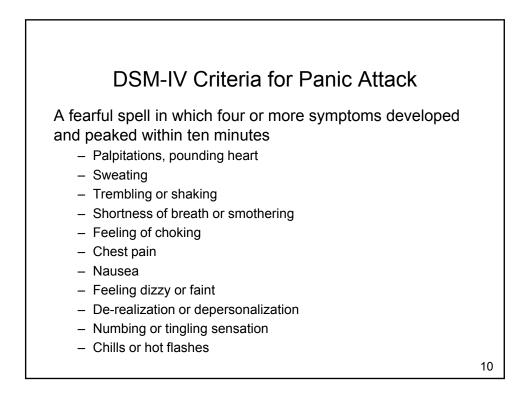
Six items on recent psychological distress are included in the "Sample Adult Core" module of the survey

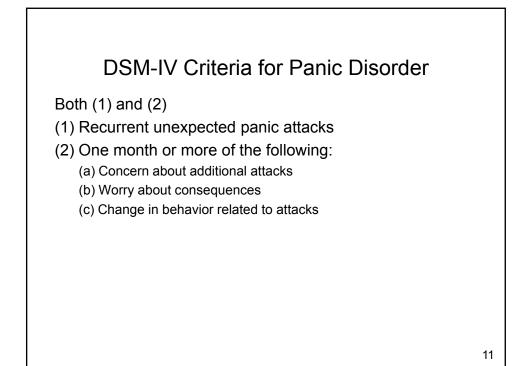
During the PAST 30 DAYS, how often did you feel . . .

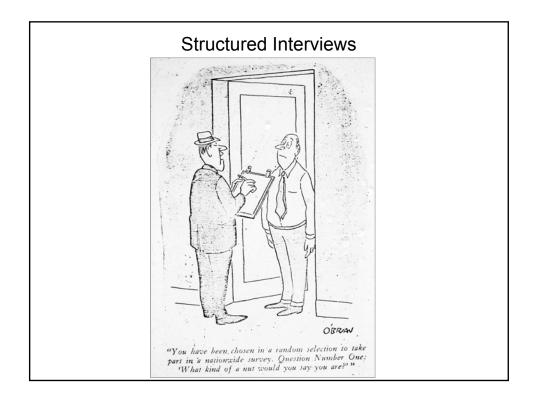
- "... so sad that nothing could cheer you up?"
- "... nervous?"
- "... restless or fidgety?"
- "... hopeless?"
- "... that everything was an effort?"
- "... worthless?"
- Answer choices are: "All of the time," "Most of the time," "Some of the time," "A little of the time," or "None of the time."

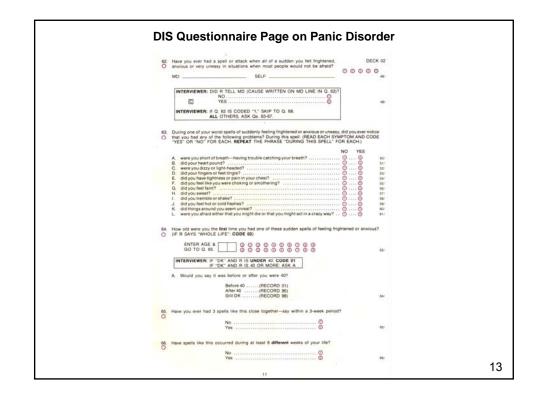
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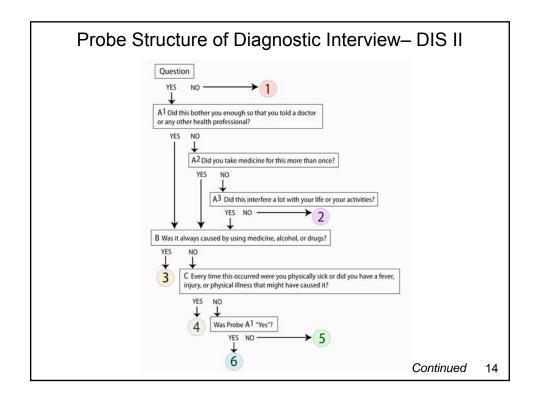


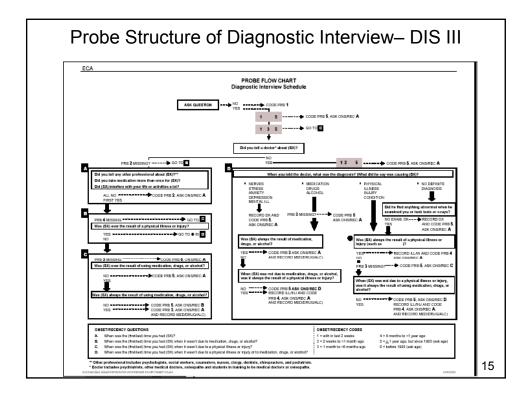












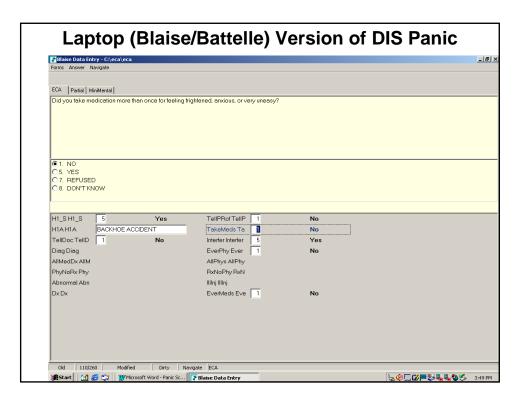
ECA Partial MiniMental	Lapior) version (of DIS Par	NIC
Since 1993, have you had a	spell or attack when	all of a sudden you felt frightened, an		en most people would not be afraid or
that is, when you were not in	danger or the center of a	attention or doing anything like that?		
01. NO				
01. NU © 5. YES				
O7. REFUSED				
C 8. DON'T KNOW				
I				
н1 ѕн1 ѕ	Yes	TellPBof TellP	No	
HIAHIA	res	TakeMeds Ta	No	
	No	Interfer Interfer	Yes	
Diag Diag	NU	EverPhy Ever	No	
AllMedDx AllM		AllPhys AllPhy	NO	
PhyNoRx Phy		RxNoPhy RxN		
Abnormal Abn		IIInj IIInj		
Dx Dx		EverMeds Eve	No	
		Evenweus Eve	INU	
DX DX				
DX DX				

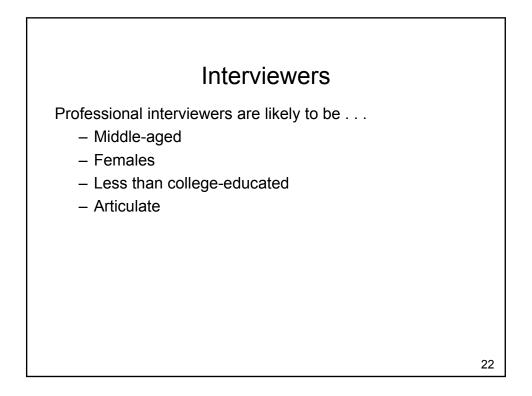
ECA Partial I	viiniMental	aptor	Version o	of DIS Pa	anic
Since 1993, he	ve you had a spe	I or attack when a	all of a sudden you felt frightened, an»		ons when most people would not be afraid or a
that is, when yo	u were not in dan	ger or the center of a	attention or doing anything like that?		
01. NO					
© 5. YES)			
O 7. REFUSE					
OB. DUN'TK	NUW				
1					
H1_SH1_S	5	Yes	TellPBof TellP	No	
HIAHIA	BACKHOE ACC		TakeMeds Ta	No	
TellDoc TellD		No	Interfer Interfer 5	Yes	
		NU		No	
Diag Diag			Lion hy Lion 1	NO	
AllMedDx AllM			AllPhys AllPhy		
PhyNoRx Phy			RxNoPhy RxN		
			IIIInj IIInj		
Abnormal Abn			EverMeds Eve 1	No	
Abnormal Abn Dx Dx					

Could you tell m		ell or attack like that?	Version c		
Example					
	5	Yes	TellPRof TellP	No	
IHI SHI S				Νο	
H1_SH1_S H1AH1A	BACKHOE A	CCIDENT	TakeMeds Ta 1	INU	
L		No	Interfer Interfer 5	Yes	
H1AH1A					
H1AH1A TellDoc TellD			Interfer Interfer	Yes	
H1A H1A TellDoc TellD Diag Diag			Interfer Interfer 5 EverPhy Ever 1	Yes	
H1A H1A TellDoc TellD Diag Diag AllMedDx AllM			Interfer Interfer 5 EverPhy Ever 1 AllPhys AllPhy	Yes	
H1A H1A TellDoc TellD Diag Diag AllMedDx AllM PhyNoRx Phy			Interfer Interfer 5 EverPhy Ever 1 AllPhys AllPhy PxNoPhy PxN	Yes	
H1A H1A TellDoc TellD Diag Diag AllMedDx AllM PhyNoRx Phy Abnormal Abn			Interfer Interfer 5 Ever/Phy Ever 1 AllPhys AllPhy PxNoPhy PxN Illinj Illinj	Yes No	

´	octor about feeling frightened, an		of DIS Par	
Doctor include:		xious, or very uneasy?		
Local melades	s psychiatrists, other medical doc	ctors, osteopaths, and students in training	to be medical doctors or osteopath	IS
01. NO				
O 5. YES				
O 7. REFUSE				
O8. DON'T K	NOW			
I				
	5 Yes	TellPRof TellP 1	No	
H1_SH1_S				
H1AH1A	BACKHOE ACCIDENT	TakeMeds Ta 1	No	
H1AH1A TellDoc TellD	BACKHOE ACCIDENT	Interfer Interfer 5	Yes	
H1A H1A TellDoc TellD Diag Diag		Interfer Interfer 5 EverPhy Ever 1		
H1A H1A TellDoc TellD Diag Diag AllMedDx AllM		Interfer Interfer 5 EverPhy Ever 1 AllPhys AllPhy	Yes	
H1A H1A TellDoc TellD Diag Diag AllMedDx AllM PhyNoRx Phy		Interfer Interfer 5 EverPhy Ever 1 AllPhys AllPhy PotNoPhy RxN	Yes	
H1A H1A TellDoc TellD Diag Diag AllMedDx AllM PhyNoRx Phy Abnormal Abn		Interfer Interfer 5 EverPhy Ever 1 AllPhys AllPhy PoNoPhy PoN Illinj Illinj	Yes No	
H1A H1A TellDoc TellD Diag Diag AllMedDx AllM PhyNoRx Phy		Interfer Interfer 5 EverPhy Ever 1 AllPhys AllPhy PotNoPhy RxN	Yes	
H1A H1A TellDoc TellD Diag Diag AllMedDx AllM PhyNoRx Phy Abnormal Abn		Interfer Interfer 5 EverPhy Ever 1 AllPhys AllPhy PoNoPhy PoN Illinj Illinj	Yes No	
H1A H1A TellDoc TellD Diag Diag AllMedDx AllM PhyNoRx Phy Abnormal Abn		Interfer Interfer 5 EverPhy Ever 1 AllPhys AllPhy PoNoPhy PoN Illinj Illinj	Yes No	
H1A H1A TellDoc TellD Diag Diag AllMedDx AllM PhyNoRx Phy Abnormal Abn		Interfer Interfer 5 EverPhy Ever 1 AllPhys AllPhy PoNoPhy PoN Illinj Illinj	Yes No	

	other profession	nal about feeling frigh	Version of tened, anxious, or very uneasy?		
Other professio	inal includes psy	chologists, social wo			
			orkers, counselors, nurses, clergy, de	intists, chiropractors, and po	odiatrists
1					
1. NO 1. NO					
05. YES 07. REFUSE	P				
0 8. DON'T K					
DOINTIN					
,					
H1_SH1_S	5	Yes	TellPRof TellP	No	
H1AH1A	BACKHOE AC	CIDENT	TakeMeds Ta 1	No	
TellDoc TellD		No	Interfer Interfer 5	Yes	
			EverPhy Ever 1	No	
Diag Diag				No	
Diag Diag AllMedDx AllM			AllPhys AllPhy	No	
Diag Diag AllMedDx AllM PhyNoRx Phy			AllPhys AllPhy PxNoPhy RxN	No	
Diag Diag AllMedDx AllM PhyNoRx Phy Abnormal Abn			AllPhys AllPhy PxtNoPhy PxtN Illinj Illinj		
Diag Diag AllMedDx AllM PhyNoRx Phy			AllPhys AllPhy PxNoPhy RxN	No	
Diag Diag AllMedDx AllM PhyNoRx Phy Abnormal Abn			AllPhys AllPhy PxtNoPhy PxtN Illinj Illinj		
Diag Diag AllMedDx AllM PhyNoRx Phy Abnormal Abn			AllPhys AllPhy PxtNoPhy PxtN Illinj Illinj		
Diag Diag AllMedDx AllM PhyNoRx Phy Abnormal Abn			AllPhys AllPhy PxtNoPhy PxtN Illinj Illinj		





Field Work

Interviewer attrition during training > 50%

Pay by hour is preferable to by piece

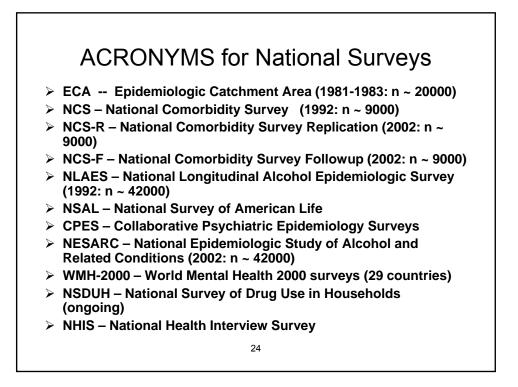
➤10% validation

Hundreds of interviewers

7–15 interviewers per interview supervisor

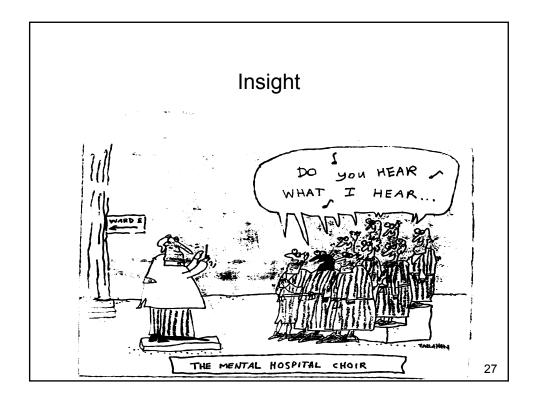
1-2 weeks training



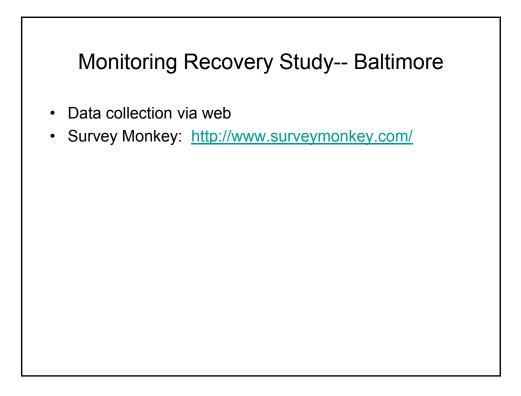


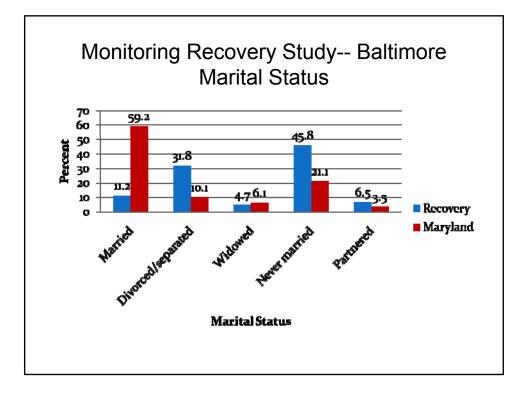
http://www.icpsr.ur	ES Study Populat mich.edu/icpsrweb/ICPSR/s	<u>tudies/20240</u>
National	National Survey of American Life	National Latino and Asian American
Comorbidity Survey		
Replication (NCS-R)	(NSAL)	Study (NLAAS)
-Adults age 18 yrs+	-Adults age 18+	-Adults 18+
-English speaking	-English speaking	-Multilingual
-Non-institutional HH	-Non-inst HH	-Includes AK and HI
-Contiguous U.S.	-Contiguous U.S.	-Non-inst HH
-All race/ethnicity -No over-sampling of minority	-African-American -Afro-Caribbean -non-Hispanic white	-Latino -Asian-American
From Holzer, 6/30/201	0	

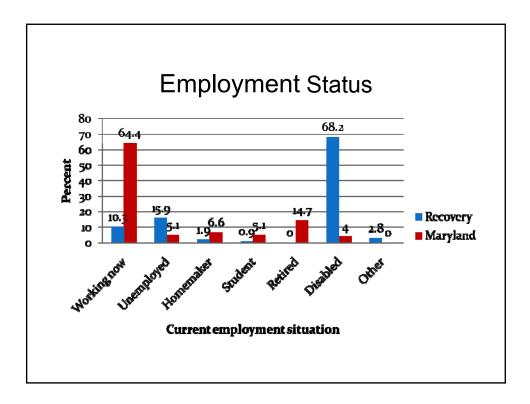
•	Prevalence in percent for Three Risk Categories for Major Depressive Disorder					
	CPES	NESARC				
Marital Status						
Married/cohabiting	5.0	5.2				
8.7Separated, Divorced, Widowed	9.1	9.8				
Never Married	8.7	7.8				
Race/ethnicity						
White	7.0	6.9				
Black	5.4	5.5				
Hispanic	6.9	5.5				
Asian	4.3	4.6				
Education						
Less than High School	7.6	7.2				
High School	6.1	6.4				
Some college	7.2	6.9				
College or more	6.2	5.8				

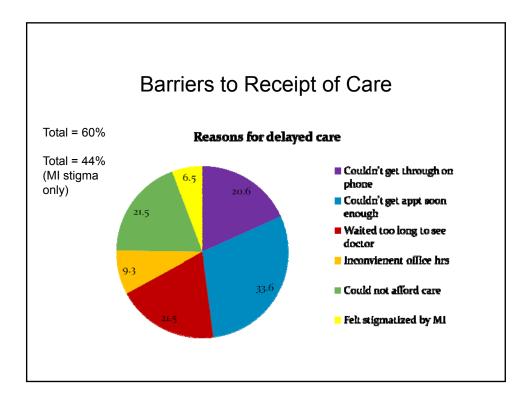


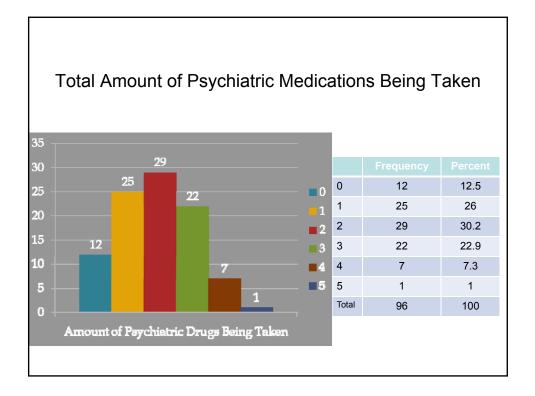
TWO		f Case Finding/ ipolar Disorder	luentineati	UII	
	Married	Cohabitating	Never married	Divorced	Widowe
Collaborative Psyc	hiatric Epide	emiology Surve	/s		
Prevalence per 100		0.38	0.97	0.	78
Size of Numerator		38	35	27	
Odds Ratio		1.00	1.24	2.81	
Danish Psychiatric	Case Regis	ter			
Prevalence per 100	0.015	0.016	0.021	0.064	0.033
Size of Numerator	329	91	253	199	98
Odds Ratio	1.00	1.02	1.35	4.15	2.14

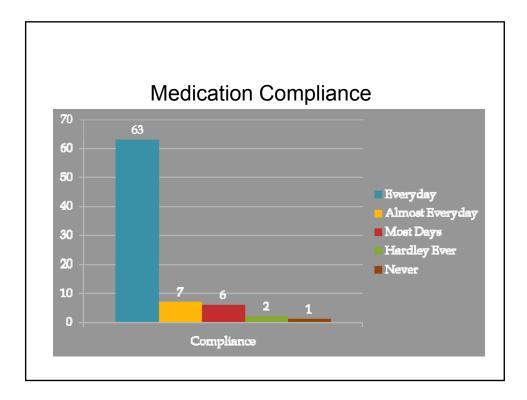


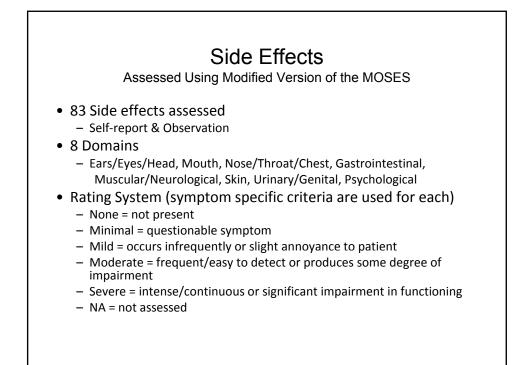


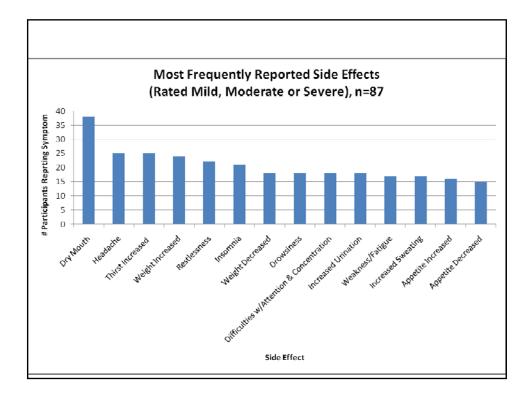


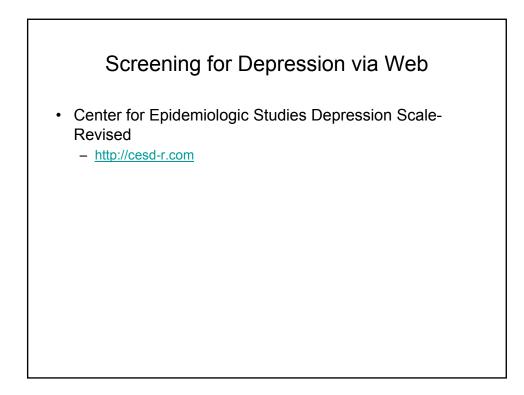




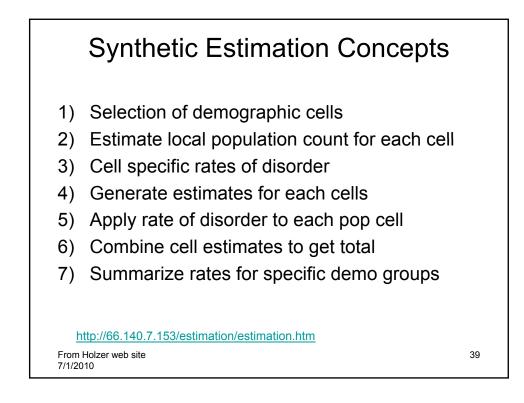


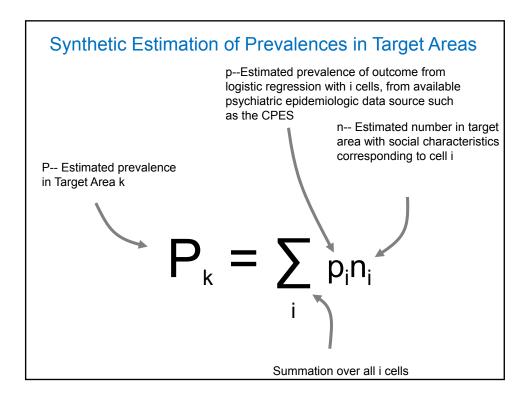




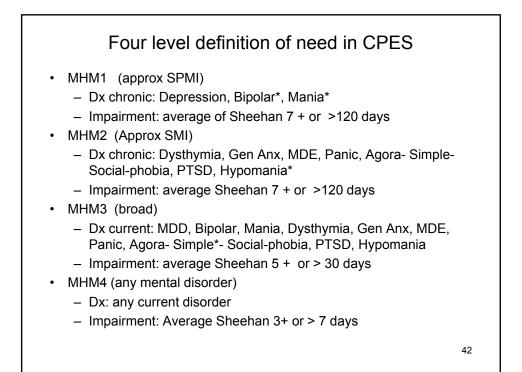


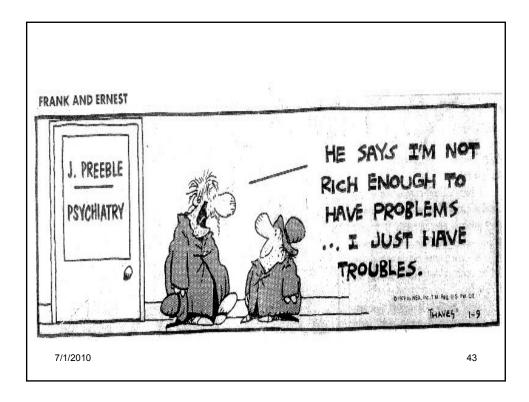
Center for Epide	miologic S cale, Revi		s De	pres	sion	
Below is a list of the ways you might have felt or behaved. Please check the boxes to tell me how often you felt this way in the past week or so.		LAST	WEEK			
	Not at all or Less than one day	1-2 days	3-4 days	5-7 days	Nearly every day for 2 weeks	
My appetite was poor.						1
I could not shake off the blues.						
I had trouble keeping my mind on what I was doing.						1
I felt depressed.						1
My sleep was restless.						1
I felt sad.						1
l could not get going.						1
Nothing made me happy.						1
I felt like a bad person.						-
I lost interest in my usual activities.				С	ontinued	





Variable	Definition	Cells
Age:	0-5,6,12,18,21,25,35,45,55,65+	10
Sex:	Male, Female	2
Race:	White, African Am, Asian, Pacific, Native Am, Other, Multi, Hispanic	8
Marital:	Married, (Sep./ Wid./ Div.), Single	3
Education:	Not HS grad, HS grad, College grad	3
Poverty:	FPL%: 0-,100-,200-,300+, undefined	5
Residence:	Residential, Institutional, Group	3
Total cells	10x2x8x3x3x5x3	21600



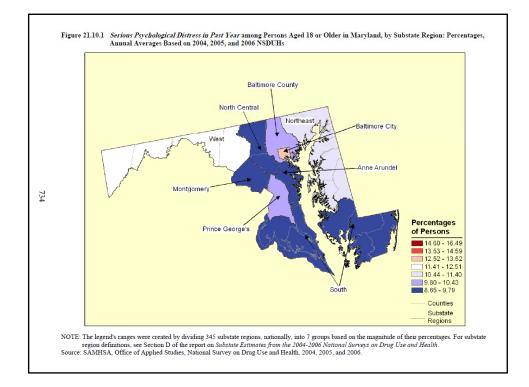


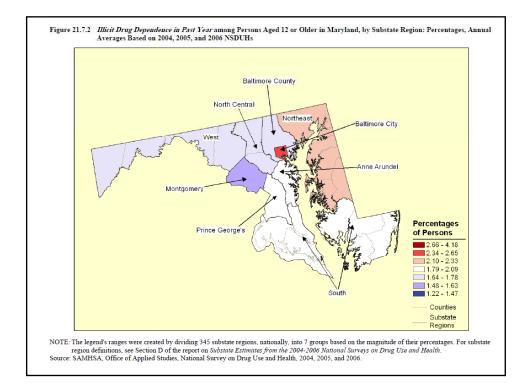
Synthetic Regression Estimation Estimated Prevalence by Area among Household Adults, CPES 2006									
aryland	Baltimore	Baltimore	Montgomery						
2.05	v		<u>County</u> 1.57						
3.88	3.68	5.78	2.88						
8.08	7.74	10.84	6.66						
14.36	13.77	18.24	12.15						
3.35	3.26	2.96	3.38						
	hold A aryland 2.05 3.88 8.08 14.36	Adults, CPI aryland Baltimore County 2.05 2.01 3.88 3.68 8.08 7.74 14.36 13.77	Adults, CPES 2006arylandBaltimore CountyBaltimore City2.052.012.793.883.685.788.087.7410.8414.3613.7718.24						

		'sychological Distress n Past Year ¹		st One Major Depressiv de in Past Year ²
State/Substate Region	Estimate	95% Prediction Interval	Estimate	95% Prediction Interval
Maryland	10.23	(8.95 - 11.68)	6.89	(5.77 - 8.20)
Anne Arundel	9.42	(7.41 - 11.91)	7.32	(5.43 - 9.80)
Baltimore City	13.05	(10.37 - 16.30)	7.03	(5.27 - 9.31)
Baltimore County	10.41	(8.35 - 12.91)	7.14	(5.32 - 9.52)
Montgomery	8.65	(6.91 - 10.78)	6.07	(4.48 - 8.18)
North Central	8.94	(7.10 - 11.20)	6.80	(5.07 - 9.05)
Northeast	11.07	(8.71 - 13.97)	7.49	(5.50 - 10.14)
Prince George's	9.99	(8.06 - 12.30)	6.32	(4.72 - 8.43)
South	9.72	(7.75 - 12.11)	6.99	(5.18 - 9.37)
West	11.70	(9.35 - 14.56)	7.88	(5.83 - 10.56)
NOTE: For Substate Region def Drug Use and Health. NOTE: Estimates are based on a intervals are generated b	a survey-weighted hie by Markov Chain Mo	erarchical Bayes estimation a nte Carlo techniques.	pproach, and the 95	percent prediction (credible
 Serious Psychological Distress changes, these estimates are nor report on Substate Estimates fro- 17 year olds; therefore, the estin ² Major Depressive Episode (ME 	t comparable with est om the 2004-2006 Na mates reflect only tho DE) is defined as in th	imates from the 2002-2004 s tional Surveys on Drug Use of se aged 18 or older.	ubstate report. For o and Health. Data for ic and Statistical Ma	letails, see Section B.7 of th r SPD are not defined for 12

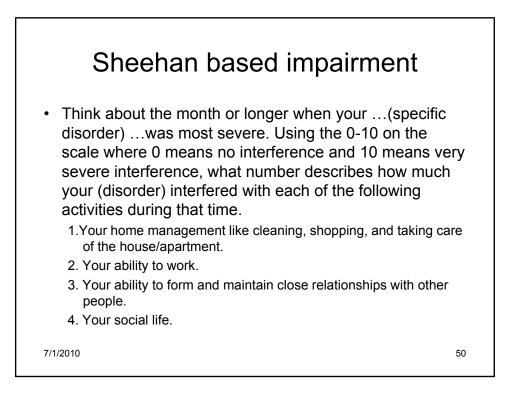
Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2004, 2005, and 2006.

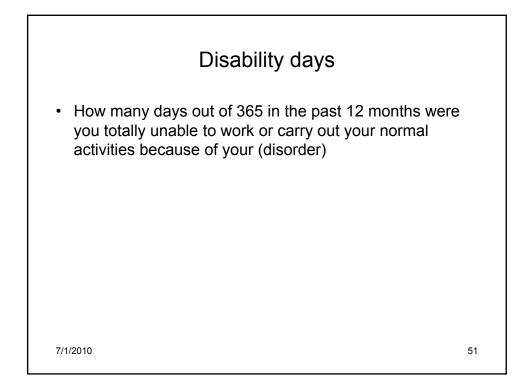
-	Maryland Est alence in percent	imates from N	cal Bayes A SDUH 2004-2006 chological Distres isode (MDE)	5
	Maryland	Baltimore County	Baltimore City	Montgomery County
SPD	10.2 (9.0-11.7)	10.4 (8.4-12.9)	13.0 (10.4-16.3)	8.6 (6.9-10.8)
MDE	6.9 (5.8-8.2)	7.1 (5.3-9.5)	7.0 (5.3-9.3)	6.1 (4.5-8.2)
Substance abuse and/or dependence	8.2 (7.1-9.4)	8.2 (6.4-10.4)	9.8 (7.7-12.3)	7.6 (5.9-9.8





	Any Occurrence Ever	Worst Episode of Depression
Dysphoric Episode	27.9	12.0
Anhedonia	9.3	5.6
Appetite	20.7	7.0
Sleep	22.1	8.4
Slow or restless	9.8	3.7
Fatigue	17.1	5.0
Guilt	6.3	4.2
Concentration	11.7	6.9
Thoughts of Death	21.0	7.1
Episode of Depressive Syndrome		
Symptoms in 1 or more groups		12.0
Symptoms in 2 or more groups		11.8
Symptoms in 3 or more groups		10.6
Symptoms in 4 or more groups		9.6
Symptoms in 5 or more groups		7.6





ribution (percent) of severity	in 622 case	s of maj	jor depressi	ive disor	der—N(
	None	Mild	Moderate	Severe	Very severe
Sheehan disability scale domains:					
Home	9	22	35	27	7
Work	20	26	26	18	10
Relationship	15	22	29	27	7
Social	12	17	28	31	12
Highest in any domain	3	10	28	40	19
Annual days out of role	0	3	11	33	96

Table 1

Categories of treatment needed for prevalence of psychiatric disorders, as specified in the psychiatrist examination recording booklet for the Baltimore Epidemiologic Catchment Area follow-up study

-	• •		
Alcohol use disorders	Major depressive disorder	Panic disorder	Agoraphobia and social phobia
None	None	None	None
Inpatient (includes detoxification)	Inpatient hospitalization	Inpatient hospitalization	Inpatient hospitalization
Residential (formal program)	Partial hospitalization	Partial hospitalization	Behavior modification
Outpatient program (formal)	Psychiatrist's evaluation	Psychiatrist's evaluation	Psychiatrist's evaluation
Outpatient individual physician, health therapist, or counselor	Talk therapy with a mental health therapist	Talk therapy with a mental health therapist	Talk therapy with a mental health health therapist
Alcoholics Anonymous or self-help group	Mood stabilizers	Mood stabilizer	Mood stabilizers
Antabuse	Antidepressants	Antidepressants	Antidepressants
Other medical management	Neuroleptics	Other medicines	Other medicines
Simple professional advice with follow-up	Other	Other	Other

Messias et al, PS, 2007

Estimates of need for treatment for each disorder, by treatment modality, for sample (unweighted) and population (weighted) of the Baltimore Epidemiologic Catchment Area follow-up study					
Need for services ^a		Unweighted prevalence		Weighted prevalence	
	Ν	М	SE	М	SE
Depression					
Psychiatrist's evaluation and treatment	80	10.10	1.07	8.45	1.9!
Talk therapy	73	9.30	1.03	7.58	1.83
Antidepressant	75	9.50	1.05	7.12	1.74
Any treatment	97	12.30	1.17	10.49	2.06
Alcohol dependence					
Alcoholics Anonymous or other self-help	71	8.70	.99	7.83	1.61
Outpatient individual	60	7.40	.92	4.67	.92
Simple professional advice	36	4.40	.72	4.49	1.39
	137	16.90	1.31	13.59	1.96
Social phobia					
Psychiatrist's evaluation and treatment	56	6.90	.89	3.38	.74
Behavioral modification and biofeedback	53	6.50	.86	2.81	.56
Talk therapy	33	4.10	.69	2.07	.62
Any treatment	84	10.30	1.06	5.22	.88
Panic disorder					
Psychiatrist's evaluation and treatment	42	5.15	.77	4.78	1.62
Antidepressant	29	3.56	.65	3.64	1.57
Talk therapy	24	2.94	.59	3.26	1.55
Any treatment	48	5.89	.82	5.18	1.62
Agoraphobia					
Behavioral modification and biofeedback	38	4.67	.74	2.57	.80
Psychiatrist's evaluation and treatment	38	4.67	.74	1.93	.30
Antidepressant	24	2.95	.59	1.33	.37
Any treatment	47	5.77	.81	3.17	.87
Need for services for any mental health					
disorder	283	35.80	1.70	28.70	2.70

