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#### Section D

More Examples of Comparing Two Proportions

#### Example: GI Outbreak in Maryland

- Outbreak of Gastroenteritis in Maryland high school
- Sample of 263 students who bought lunch on single day: some ate sandwiches, others ate other meals

		Ate Sandwich		
		Yes	No	_
Sick	Yes	109	4	113
	No	116	34	150
	'	225	38	263

## Example: GI Outbreak in Maryland

 Sample proportions and 95% CIs of proportions with illness for sandwich and non-sandwich group (Stata)

. cii 225 109

Binomial Exact [95% Conf. Interval]	Std. Err.	Me an	Variable
.4175076 .5517965		.484444	
			. cii 38 4
Binomial Exact			
[95% Conf. Interval]	Std. Err.	Me an	Variable
.0294345 .2480494	.0497845		

# Example: GI Outbreak in Maryland

#### Results from comparison of proportions

. csi 109 4 116 34

	Exposed	Unexposed	Total	
Cases Noncases	•	4 34	113   150	
Total	225	38	263	
Risk	.484444	.1052632	. 4296578	
	Point	estimate	[95% Conf.	Interval]
Risk difference	.3	791813	.2617709	.4965917
Risk ratio	1 4.	602222	1.803663	11.74302
Attr. frac. ex.	.78	B27137	.4455728	.914843
Attr. frac. pop	·	755007	I	
	+	chi2(1) =	19.07 Pr>chi	2 = 0.0000

 Proportion of dialysis patients with national insurance in 12 countries (only six shown)

EXHIBIT 1
Descriptive Measures Of The Prevalent Cross-Sectional Patient Sample, Dialysis
Patients In Twelve Countries, 2002–2004

	A/NZ (n = 561)	BEL (n = 468)	CAN (n = 503	FRA (n = 481)	GER (n = 524)	(n = 540)
Mean age (years) Minority <sup>a</sup>	59.9 (14.7) 21.5%	66.2 (13.4) 5.3%	62.1 (14.7) 18.7%	64.1 (14.5) 7.1%	61.7 (14.1) 0.4%	64 (13.7) 0.4%
Income (\$US)						
<\$20,000	85.0%	73.4%	71.8%	67.0%	59.7%	78.3%
\$20,000-\$39,000	9.1	17.5	20.8	21.8	27.1	17.4
≥\$40,000	5.9	9.1	7.4	11.2	13.1	4.2
Insurance type						
National only	69.8%	74.1%	79.6%	45.5%	95.4%	99.6%
Private only	5.4	0.4	0.2	0.2	2.9	0.0
Mean number of						
comorbid conditions <sup>b</sup>	3.7 (2)	3.9 (2.1)	4.1(2.1)	3.1(1.9)	3.4 (2.1)	2.7 (1.9)
Mean number of						1
prescribed medications	8.7 (3.6)	9.9 (4.1)	12.6 (4.8)	7.7 (3.5)	9.7 (3.5)	6.4 (3.6)
	140		CHAIR	1107	110	

- Observed proportions and 95% CI for Canada and France, respectively
  - Canada

. cii 503 361

Variable	Obs	Mean	Std. Err.		l Exact Interval]
	503	.7176938	.0200699	.6761616	.7566455

#### France

. cii 481 219

Variable	l Obs	Me an	Std. Err.	Binomial Exact [95% Conf. Interval]
	481	.4553015	.0227068	.4101514 .5010042

2x2 table setup

		Country		
		CAN	FR	_
Insurance	Yes	361	219	503
	No	142	262	481
		503	481	984

#### Comparison of proportions

. csi 361 219 142 262

	I	Exposed	Unexposed	Tota	1
Cases Noncases		3 6 1 1 4 2	2 19 2 62	58   40	
Total		503	481	98	4
Risk		.7176938	.4553015	.589430	9
		Point	estimate	   [95% C	onf. Interval]
Risk difference	1	.26	523924	1 .20299	55 .3217893
Risk ratio	Ι	1.5	76305	1.4091	95 1.763232
Attr. frac. ex.	Ι	.3656049		.29037	48 .4328596
Attr. frac. pop	1	.22	275575	1	
	+-		chi2(1) =	69.95 Pr	>chi2 = 0.0000