

# Discontinuous insurance coverage among children; results from the Ohio Family Health Survey

Joseph Schuchter, MPH  
Cincinnati Children's Hospital

change the outcome®



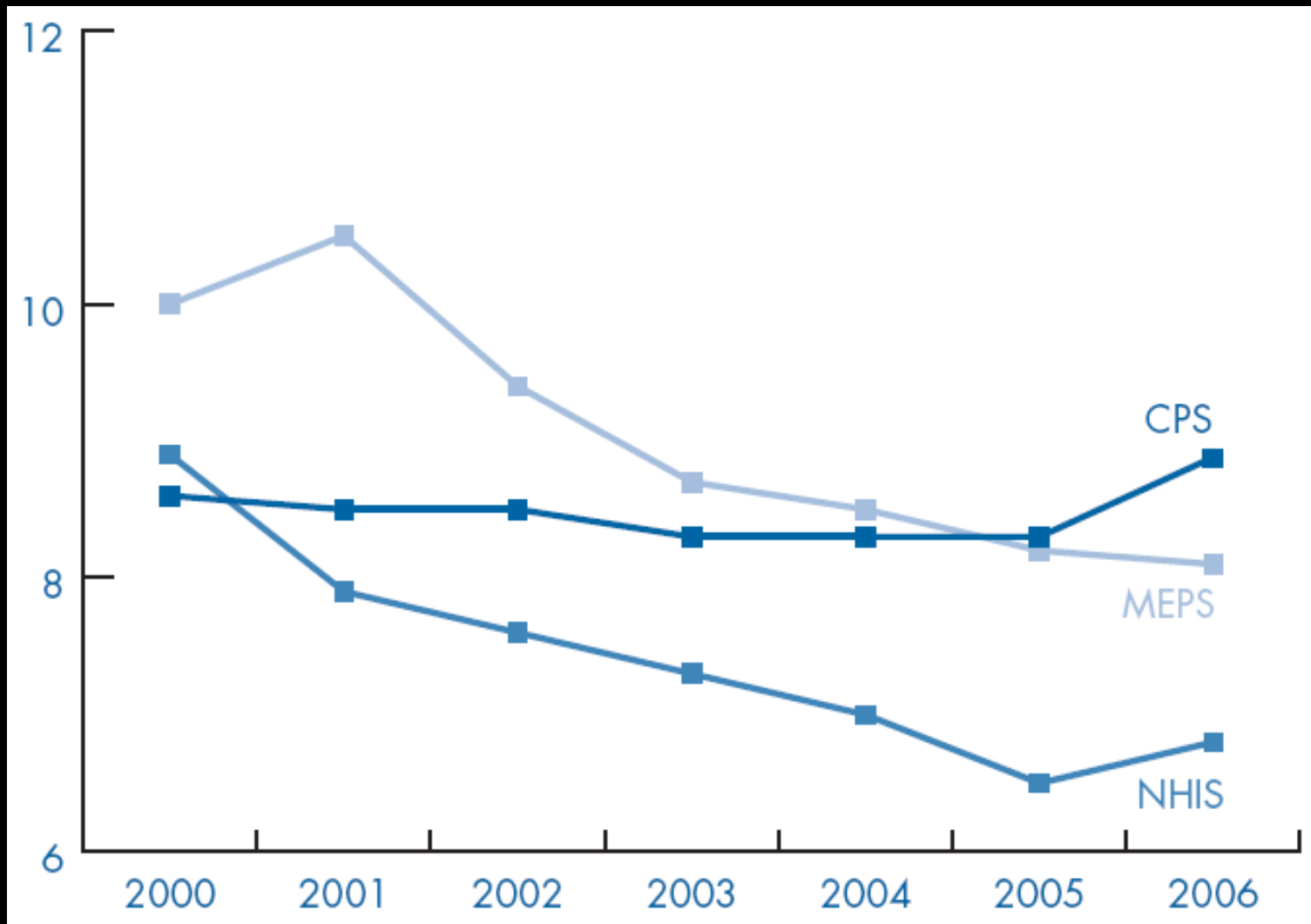
# Learning Objectives

- Identify the impacts of gaps in coverage for children
- Recognize the relationship between policy and insurance coverage and effectiveness

# INTRODUCTION

- “10 million” uninsured
- CMS 95% rule
  - how many uninsured eligible enrolled in Medicaid/ SCHIP before?
  - can 95% stay enrolled?
- 20% of low-income children transition

Aiken KD, Freed GL, Davis MM. When insurance status is not static: insurance transitions of low-income children and implications for health and health care. *Ambul Pediatr.* May-Jun 2004;4(3):237-243.



# METHODS

# Ohio Family Health Survey

- October 2003 – July 2004
- Household, adult and child samples
- Similar to National Health Interview Survey
- Cooperation = 56%
- Sample size 15,447 representing 2.8 million children

# Analysis

- Complex survey design
  - SAS 9.1 (proc surveyfreq)
- dependent variable: reported needs, last 12 months
  - Logistic model adjusting for insurance status, past 12 months, age, race/ ethnicity, income, working parent, self-rated health, region

# Ohio context

- Medicaid expansion
- 12 month renewal
  - Pre-printed forms
- Good retention in public programs



# RESULTS

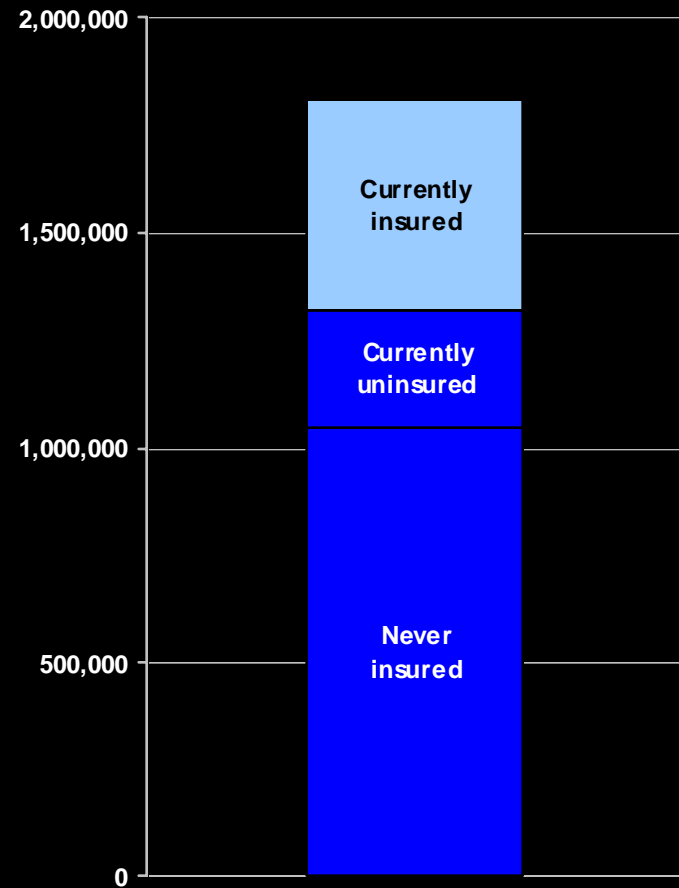
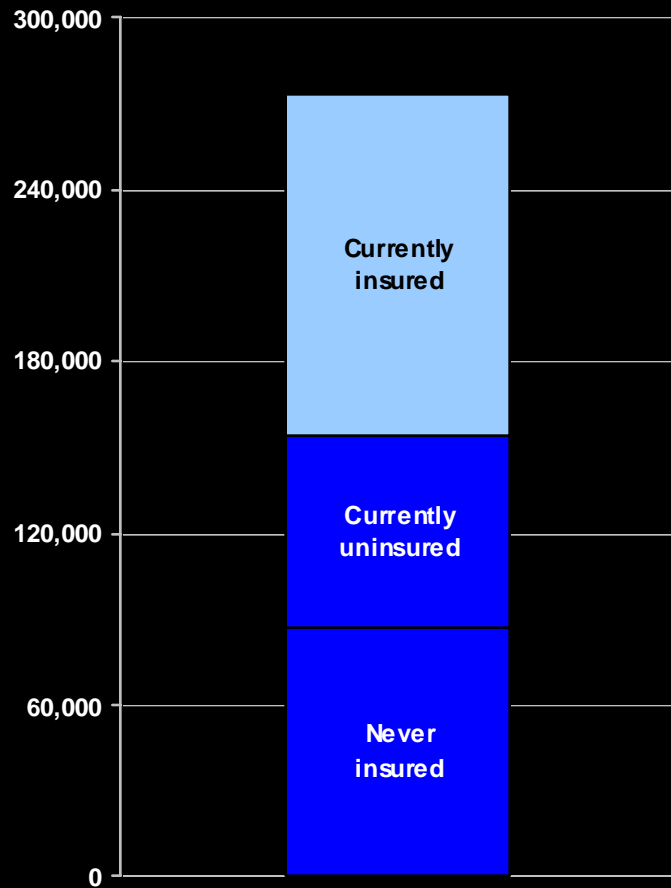
# Insurance status at time of survey vs. past 12 months

Status @ survey	Year-long status				
	Uninsured	Part year	Public	Private	Total
Insured	na	118,780	809,545	1,746,128	2,674,453
Uninsured	87,031	67,081	na	na	154,112
Total	87,031	185,861	809,545	1,746,128	2,828,565
Insured	na	4	29	62	95
Uninsured	3	2	na	na	5
Total	3	7	29	62	100

# Months without insurance, for those insured part of the year

Status @ survey	Months without insurance				Total
	1 - 3	4 - 6	7 - 11	Unknown	
Insured	60,939	25,732	26,649	5,460	118,780
Uninsured	36,137	17,038	12,817	1,089	67,081
<b>Total</b>	<b>97,076</b>	<b>42,770</b>	<b>39,466</b>	<b>6,549</b>	<b>185,861</b>
Insured	33	14	14	3	64
Uninsured	19	9	7	1	36
<b>Total</b>	<b>52</b>	<b>23</b>	<b>21</b>	<b>4</b>	<b>100</b>

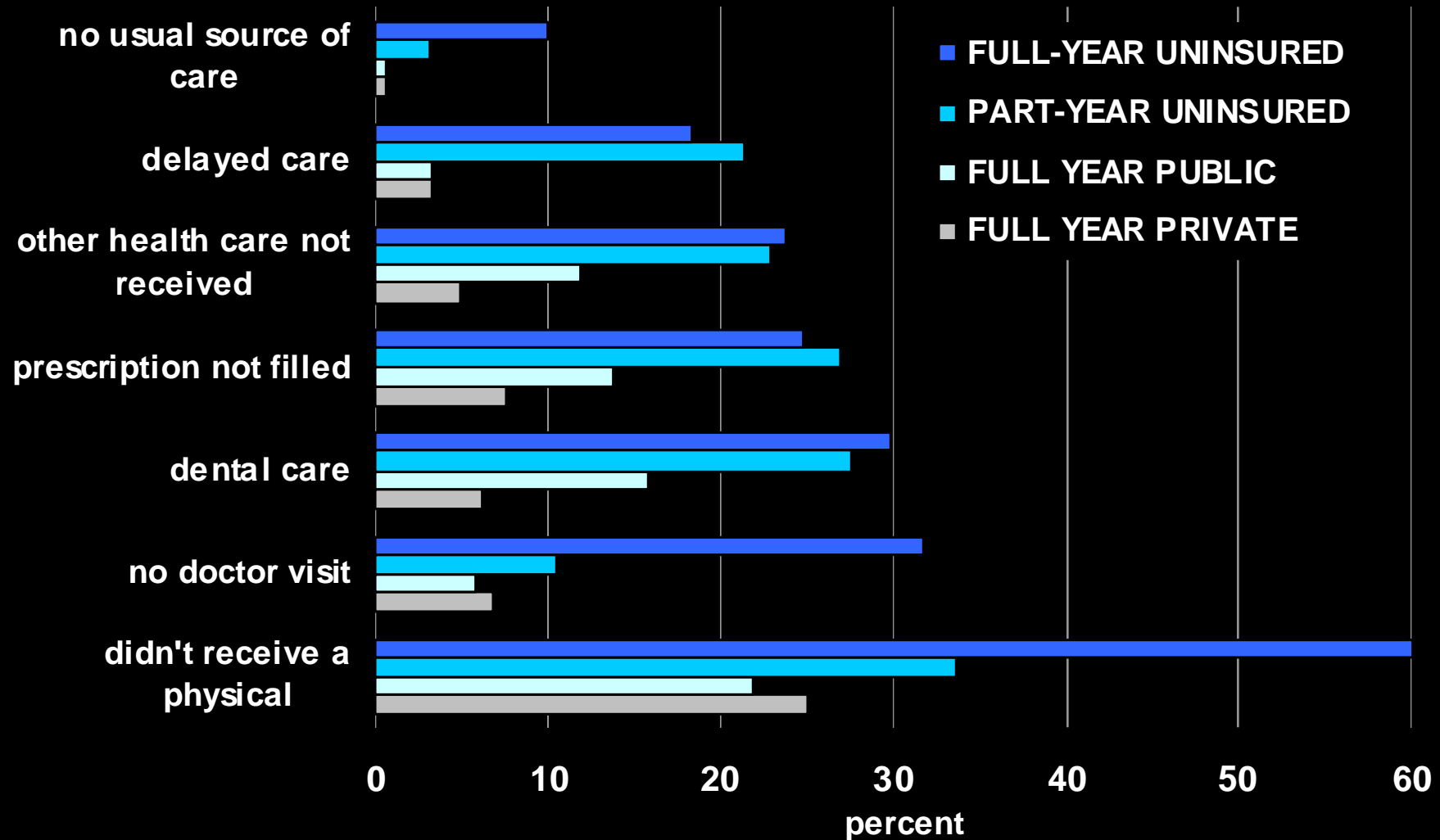
# Children vs. Children-months



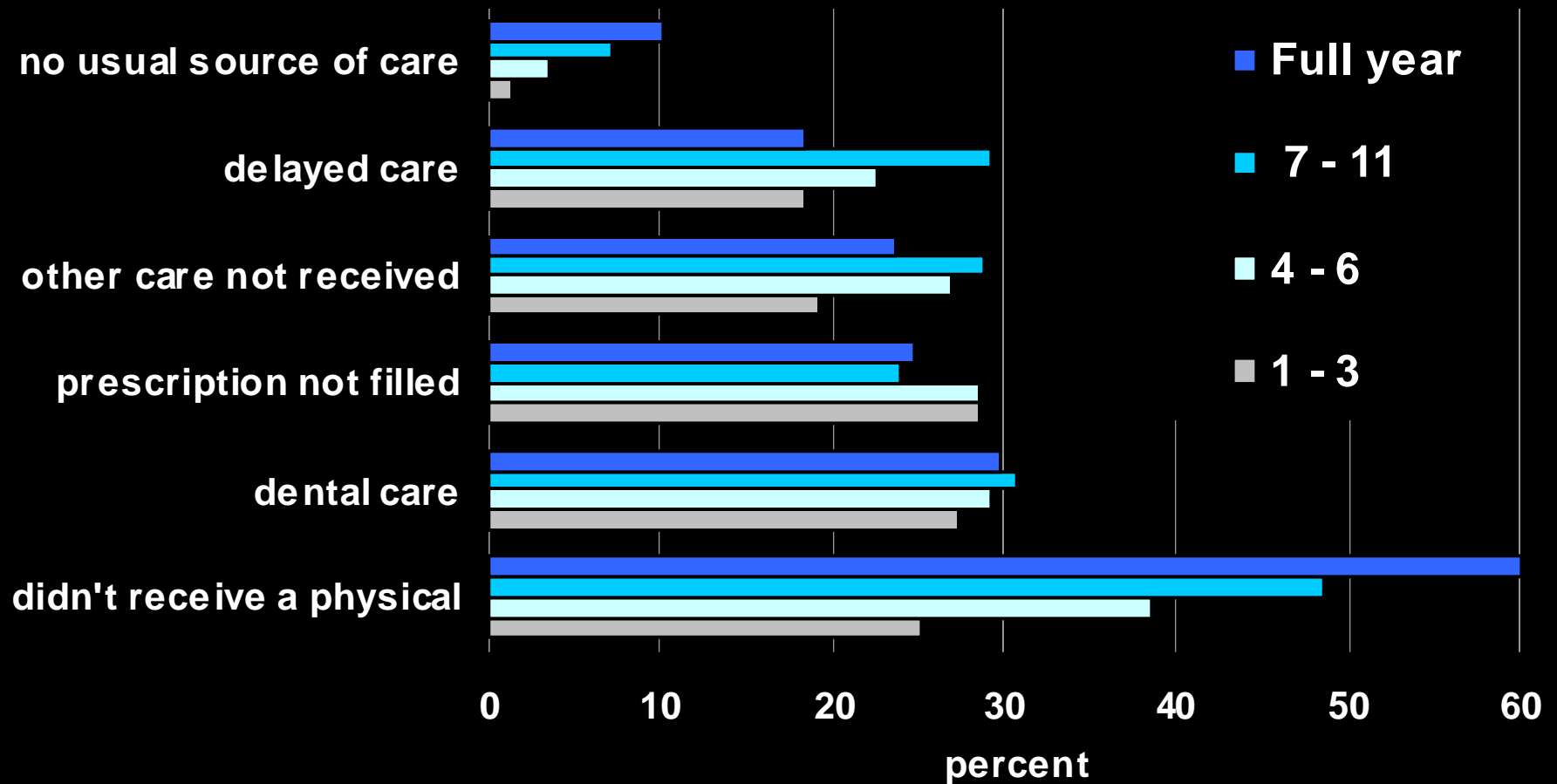
# Characteristics, by insurance status

	Uninsured	Part-year	Public	Private	All
<b>Age</b>					
0 to 4	6	12	7	5	6
5 to 9	18	28	34	26	28
10 to 14	37	33	34	36	36
15 to 17	37	27	25	33	31
<b>Family income</b>					
< 200% FPL	69	65	81	20	41
<b>Race/ ethnicity</b>					
Hispanic	18	10	11	6	8
Black/Non Hispanic	11	13	23	7	12
Asian, Hw, Pi	3	2	1	2	2
White / Other Non Hispanic	68	75	65	85	78
<b>Region</b>					
Appalachian	23	20	22	17	19
Metro	53	56	55	52	53
Rural	16	14	14	19	17
Suburban	8	11	9	12	11
<b>Adult respondent working</b>					
Adult respondent working	88	86	80	99	93
<b>Health Status</b>					
Fair or poor (self-reported)	7	5	6	2	3
Limitation of activities	7	6	12	4	7
Behavioral/ emotional problem	8	9	13	5	8
Needs medicine	12	20	29	21	23
Has asthma	11	13	19	11	13

# Unmet needs, by insurance status



# Unmet needs, by insurance status, 2



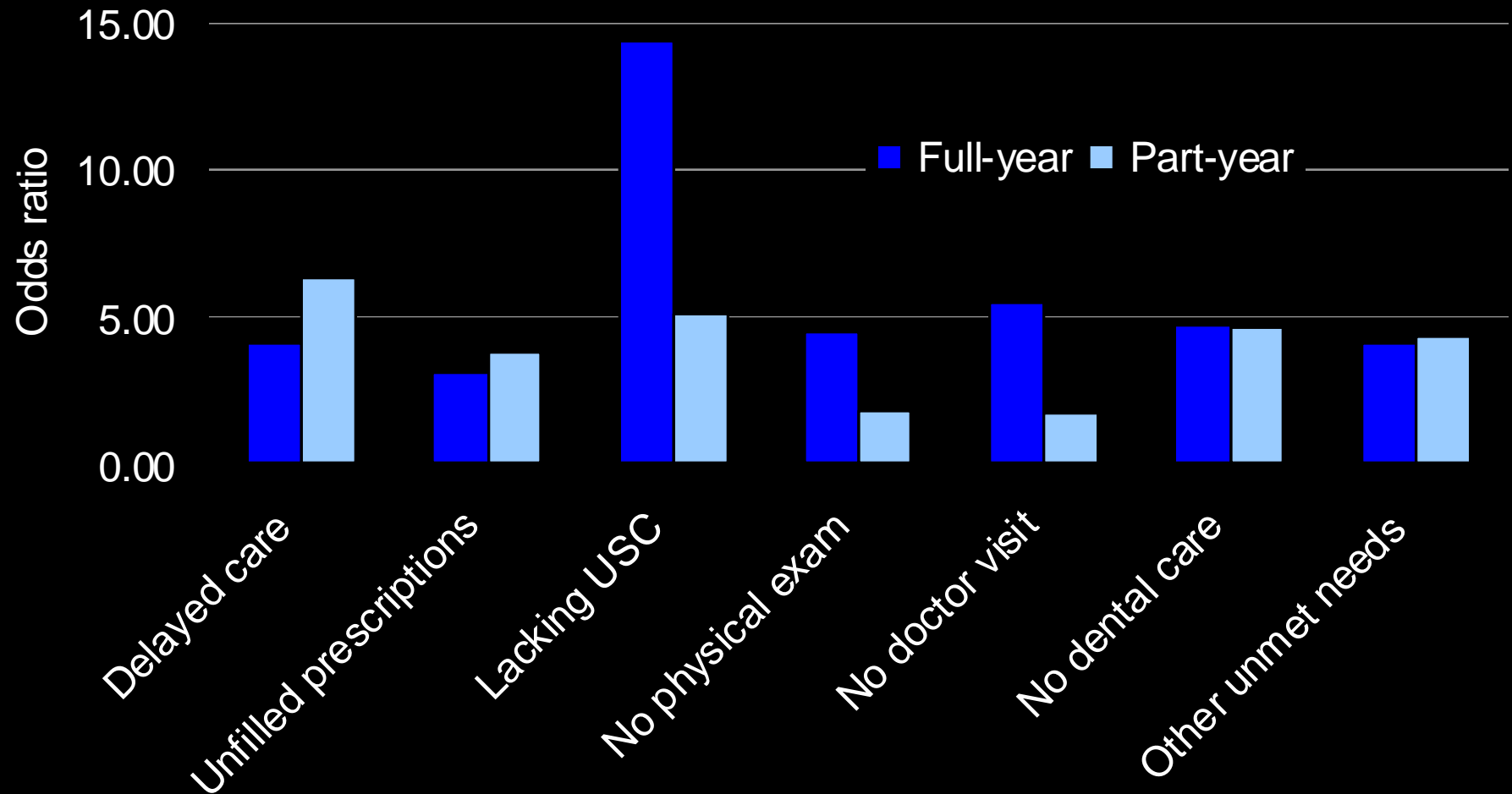
# Unmet needs among those with part-year insurance, by months uninsured

## Months without coverage, past year

	1 - 3	4 - 6	7 - 11	Full year
didn't receive a physical	25	39	49	60
couldn't get dental care	27	29	31	30
prescription not filled	29	29	24	25
other care not received	19	27	29	24
delayed care	18	23	29	18
no usual source of care	1	4	7	10



# Adjusted analysis



	Delayed care			Unfilled prescriptions			Lacking USC		
	OR	LL	UL	OR	LL	UL	OR	LL	UL
<b>Insurance coverage</b>									
Full-year uninsured	4.09	3.11	5.39	3.09	2.43	3.92	14.30	8.82	23.19
Part-year uninsured	6.31	5.07	7.85	3.79	3.14	4.58	5.08	2.99	8.65
Full-year insured, public	0.70	0.55	0.89	0.87	0.71	1.06	1.18	0.62	2.22
Full-year insured, private	1.00			1.00			1.00		
<b>Age</b>									
0 to 4	0.26	0.16	0.41	0.72	0.55	0.95	0.21	0.08	0.58
5 to 9	0.41	0.33	0.51	0.77	0.65	0.91	0.29	0.17	0.50
10 to 14	0.76	0.64	0.90	0.89	0.76	1.04	0.63	0.43	0.92
15 to 17	1.00			1.00			1.00		
<b>Family income</b>									
Less than 200% FPL	1.92	1.60	2.31	2.04	1.75	2.38	1.29	0.85	1.94
200% FPL or greater	1.00			1.00			1.00		
<b>Race/ethnicity</b>									
Asian, Hawaiian, Pacific Islander	0.97	0.54	1.72	0.41	0.22	0.76	3.94	1.86	8.34
Black/Non Hispanic	1.04	0.81	1.34	0.95	0.77	1.18	0.97	0.51	1.82
Hispanic	1.15	0.88	1.49	0.81	0.64	1.03	2.27	1.42	3.62
White Other/Non Hispanic	1.00			1.00			1.00		
<b>Region</b>									
Appalachian	1.08	0.80	1.47	0.98	0.78	1.23	0.50	0.27	0.91
Metropolitan	1.07	0.82	1.40	0.81	0.66	0.99	0.55	0.34	0.91
Rural	1.17	0.86	1.59	0.76	0.59	0.97	0.56	0.31	1.03
Suburban	1.00			1.00			1.00		
<b>Parent currently working</b>									
No	1.22	0.92	1.61	1.00	0.83	1.19	0.59	0.36	0.97
Yes	1.00			1.00			1.00		
<b>Self-rated health</b>									
Fair or poor	3.41	2.58	4.52	2.46	1.87	3.24	0.83	0.35	1.97
Excellent, very good or good	1.00			1.00			1.00		

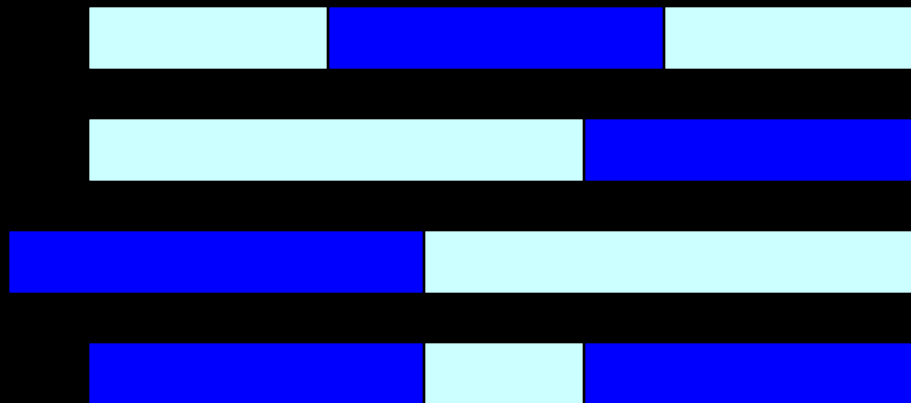
	No physical exam			No doctor visit			No dental care		
	OR	LL	UL	OR	LL	UL	OR	LL	UL
<b>Insurance coverage</b>									
Full-year uninsured	4.39	3.58	5.38	5.49	4.33	6.95	4.70	3.73	5.93
Part-year uninsured	1.78	1.51	2.10	1.67	1.30	2.15	4.61	3.80	5.59
Full-year insured, public	0.91	0.79	1.04	0.88	0.70	1.11	1.36	1.13	1.65
Full-year insured, private	1.00			1.00			1.00		
<b>Age</b>									
0 to 4	0.13	0.10	0.17	0.01	0.00	0.06	0.60	0.45	0.80
5 to 9	0.25	0.22	0.28	0.23	0.18	0.29	0.75	0.63	0.89
10 to 14	0.85	0.77	0.94	0.88	0.76	1.02	1.03	0.88	1.20
15 to 17	1.00			1.00			1.00		
<b>Family income</b>									
Less than 200% FPL	1.21	1.09	1.35	1.39	1.17	1.64	2.28	1.95	2.67
200% FPL or greater	1.00			1.00			1.00		
<b>Race/ethnicity</b>									
Asian, Hawaiian, Pacific Islander	1.32	0.98	1.79	1.50	0.94	2.37	0.52	0.29	0.94
Black/Non Hispanic	0.94	0.80	1.11	1.07	0.83	1.38	1.06	0.86	1.30
Hispanic	1.18	1.00	1.40	1.33	1.04	1.70	1.04	0.83	1.30
White Other/Non Hispanic	1.00			1.00			1.00		
<b>Region</b>									
Appalachian	1.20	1.02	1.41	0.81	0.62	1.05	1.03	0.81	1.32
Metropolitan	0.72	0.62	0.83	0.72	0.58	0.91	0.96	0.77	1.19
Rural	1.39	1.18	1.63	1.14	0.89	1.46	0.93	0.72	1.21
Suburban	1.00			1.00			1.00		
<b>Parent currently working</b>									
No	1.05	0.94	1.17	1.16	0.97	1.37	0.98	0.85	1.13
Yes	1.00			1.00			1.00		
<b>Self-rated health</b>									
Fair or poor	0.90	0.69	1.17	0.44	0.26	0.73	2.02	1.52	2.67
Excellent, very good or good	1.00			1.00			1.00		

Other unmet needs

	OR	LL	UL
<b>Insurance coverage</b>			
Full-year uninsured	<b>4.05</b>	3.15	5.19
Part-year uninsured	<b>4.36</b>	3.55	5.36
Full-year insured, public	0.90	0.72	1.13
Full-year insured, private	1.00		
<b>Age</b>			
0 to 4	<b>0.46</b>	0.33	0.65
5 to 9	<b>0.60</b>	0.50	0.73
10 to 14	<b>0.84</b>	0.71	0.99
15 to 17	1.00		
<b>Family income</b>			
Less than 200% FPL	<b>1.90</b>	1.60	2.25
200% FPL or greater	1.00		
<b>Race/ethnicity</b>			
Asian, Hawaiian, Pacific Islander	0.64	0.36	1.16
Black/Non Hispanic	0.78	0.60	1.00
Hispanic	0.80	0.61	1.04
White Other/Non Hispanic	1.00		
<b>Region</b>			
Appalachian	1.13	0.87	1.45
Metropolitan	0.85	0.67	1.08
Rural	0.88	0.67	1.16
Suburban	1.00		
<b>Parent currently working</b>			
No	1.08	0.91	1.27
Yes	1.00		
<b>Self-rated health</b>			
Fair or poor	<b>2.54</b>	1.89	3.43
Excellent, very good or good	1.00		

# LIMITATIONS

- part-year / discontinuous / gaps



- reason for uninsurance
- underinsurance

# CONCLUSIONS

- value in using children-months
- part-year insured
  - have needs like fully uninsured
  - characteristics similar to fully uninsured
- discontinuous coverage continues
- fragmented system = fragmented care?