

Washington State Licensed Child Care Facility Directors' Perspectives on Childhood Immunization

Douglas J. Opel MD, MPH,^{1,2} Ashmita Banerjee BA,³ Peggy King BSN, MFA,⁴ Cathe Paul RN, MPH,⁴ Danette Glassy MD,⁴ Kyle Yasuda MD¹
¹Department of Pediatrics, University of Washington School of Medicine, Seattle, WA; ²Seattle Children's Research Institute, Seattle, WA; ³Harvard Medical School, Boston, MA; ⁴Coalition for Safety and Health in Early Learning, Seattle, WA

Background

- The program director of a child care facility in Washington State is responsible for:
 - verifying and assessing immunization information of (enrolled) children for accuracy and completeness
 - educating coworkers and (enrolled) parents about the importance of immunizations
- No data exist regarding child care facility directors' compliance with immunization education and monitoring requirements or how their own immunization attitudes and beliefs might impact their compliance

Objective

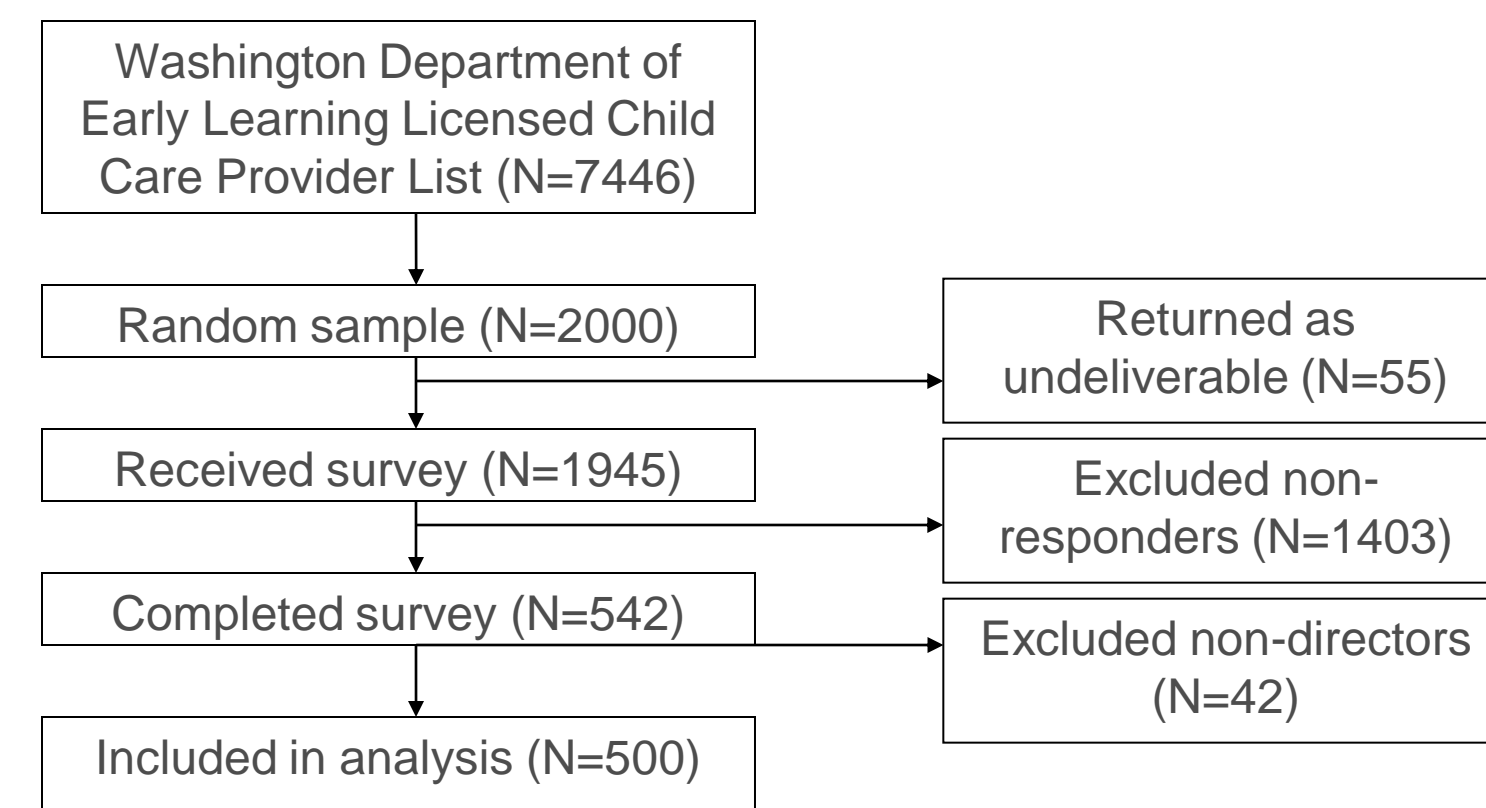
- To determine Washington State child care facility directors' compliance with state immunization education and monitoring requirements and the role of directors' immunization attitudes and beliefs on compliance

Hypothesis

- Directors would have similar concerns regarding childhood immunizations as do parents and these concerns would negatively affect their compliance with education and monitoring requirements

Study Sample

- Program directors of licensed child care facilities in Washington State who were included in the Washington State Department of Early Learning Licensed Child Care Provider List



Methods

- Anonymous, self-administered survey mailed in May 2010
- Survey based upon validated Parental Attitudes about Childhood Vaccines (PACV) survey
- Primary study outcomes were child care facility director agreement with 2 survey statements:
 - I educate parents of children enrolled in my program about the importance of immunizations
 - I monitor whether or not children enrolled in my program are up to date on their immunizations

Results

Table 1: Vaccine Attitudes, Beliefs and Behaviors of Study Participants

*Some totals do not add up to 500 because of missing data

Item	Response	N* (%)
How sure are you that following the recommended immunization schedule is a good idea for children?	0 (not at all sure) – 5	98 (20)
	6 – 7	74 (15)
	8 – 10 (completely sure)	323 (65)
Children get more immunizations than are good for them.	Strongly Agree, Agree	126 (25)
	Not Sure	136 (28)
	Strongly Disagree, Disagree	236 (47)
I believe that many of the illnesses vaccines prevent are severe.	Strongly Disagree, Disagree	50 (10)
	Not Sure	58 (12)
	Strongly Agree, Agree	390 (78)
It is better for children to develop immunity by getting sick than to get an immunization.	Strongly Agree, Agree	72 (15)
	Not Sure	117 (23)
	Strongly Disagree, Disagree	309 (62)
It is better for children to get fewer vaccines at the same time.	Strongly Agree, Agree	246 (49)
	Not Sure	176 (35)
	Strongly Disagree, Disagree	78 (16)
How concerned are you that children might have a serious side effect from an immunization?	Very Concerned, Somewhat Concerned	298 (60)
	Not Sure	26 (5)
How concerned are you that any one of the childhood immunizations might not be safe?	Not at all Concerned, Not too Concerned	176 (35)
	Very Concerned, Somewhat Concerned	252 (51)
How concerned are you that an immunization might not prevent the disease?	Not at all Concerned, Not too Concerned	55 (11)
	Very Concerned, Somewhat Concerned	191 (38)
Overall, how hesitant about childhood immunizations would you consider yourself to be?	Very Concerned, Somewhat Concerned	189 (38)
	Not at all Concerned, Not too Concerned	60 (12)
I trust the information I receive about immunizations.	Not at all Concerned, Not too Concerned	251 (50)
	Very Hesitant, Somewhat Hesitant	144 (29)
I educate parents of children enrolled in my program about the importance of immunizations.	Not Sure	30 (6)
	Not at all Hesitant, Not too Hesitant	324 (65)
I monitor whether or not children enrolled in my program are up to date on their immunizations.	Strongly Disagree, Disagree	56 (11)
	Not Sure	87 (18)
	Strongly Agree, Agree	356 (71)
	Strongly Disagree, Disagree	123 (25)
	Not Sure	37 (7)
	Strongly Agree, Agree	333 (68)
	Strongly Disagree, Disagree	45 (9)
	Not Sure	4 (1)
	Strongly Agree, Agree	450 (90)
	Strongly Disagree, Disagree	

Table 2: Odds that Directors who Gave a Hesitant Response to Vaccine Belief Survey Items Will Educate Parents Enrolled in Their Program about the Importance of Immunizations Compared to Those Who Gave a Non-Hesitant Response

Vaccine Belief Item	Hesitant Response	OR	95% CI	aOR#	95% CI
How sure are you that following the recommended immunization schedule is a good idea for children?	0 - 5	.19	.12, .32	.17	.10, .30
Children get more immunizations than are good for them.	Strongly Agree, Agree	.57	.36, .90	.52	.31, .86
I believe that many of the illnesses vaccines prevent are severe.	Strongly Disagree, Disagree	.65	.33, 1.27	.42	.20, .88
It is better for children to develop immunity by getting sick than to get an immunization.	Strongly Agree, Agree	.41	.24, .72	.37	.19, .69
It is better for children to get fewer vaccines at the same time.	Strongly Agree, Agree	.69	.45, 1.04	.66	.41, 1.05
How concerned are you that children might have a serious side effect from an immunization?	Very Concerned, Somewhat Concerned	.64	.41, .99	.57	.35, .94
How concerned are you that any one of the childhood immunizations might not be safe?	Very Concerned, Somewhat Concerned	.53	.34, .80	.46	.29, .74
How concerned are you that an immunization might not prevent the disease?	Very Concerned, Somewhat Concerned	.79	.52, 1.21	.77	.48, 1.23
Overall, how hesitant about childhood immunizations would you consider yourself to be?	Very Hesitant, Somewhat Hesitant	.34	.22, .53	.36	.22, .58
I trust the information I receive about immunizations.	Strongly Disagree, Disagree	.21	.12, .40	.19	.09, .40

#adjusted for director age, years in current position, director being a parent, and facility's average attendance and number of employed staff

Table 3: Odds that Directors who Gave a Hesitant Response to Vaccine Belief Survey Items Will Monitor the Up-To-Date Immunization Status of Enrolled Children Compared to Those Who Gave a Non-Hesitant Response

Vaccine Belief Item	Hesitant Response	OR	95% CI	aOR#	95% CI
How sure are you that following the recommended immunization schedule is a good idea for children?	0 - 5	.38	.18, .79	.42	.17, 1.06
Children get more immunizations than are good for them.	Strongly Agree, Agree	.54	.26, 1.10	.46	.19, 1.12
I believe that many of the illnesses vaccines prevent are severe.	Strongly Disagree, Disagree	.40	.17, .98	.31	.09, 1.05
It is better for children to develop immunity by getting sick than to get an immunization.	Strongly Agree, Agree	1.89	.56, 6.36	2.42	.45, 12.94
It is better for children to get fewer vaccines at the same time.	Strongly Agree, Agree	.55	.28, 1.10	.48	.20, 1.14
How concerned are you that children might have a serious side effect from an immunization?	Very Concerned, Somewhat Concerned	.32	.14, .76	.32	.12, .89
How concerned are you that any one of the childhood immunizations might not be safe?	Very Concerned, Somewhat Concerned	.31	.14, .67	.32	.13, .80
How concerned are you that an immunization might not prevent the disease?	Very Concerned, Somewhat Concerned	.78	.40, 1.54	.73	.31, 1.73
Overall, how hesitant about childhood immunizations would you consider yourself to be?	Very Hesitant, Somewhat Hesitant	.39	.20, .78	.55	.23, 1.33
I trust the information I receive about immunizations.	Strongly Disagree, Disagree	.18	.08, .38	.19	.07, .53

#adjusted for child age accepted at facility, facility's licensed capacity and average attendance, number of employed staff at facility, director being a parent, years in current position, director's age and level of education, and prior medical training received by director

- In a subgroup analysis of only those directors who were also parents (N=410), those who had ever delayed or refused an immunization for their own child were significantly less likely to educate enrolled parents about the importance of immunizations:
 - OR .44 [95% CI .26, .74] for those who delayed an immunization
 - OR .30 [95% CI .17, .54] for those who refused an immunization
- This remained statistically significant after adjusting for director age, years in current position, facility's average attendance, and number of employed staff

Conclusions

- Washington State licensed child care facility directors generally view childhood immunizations positively and most are compliant with state requirements for immunization education and monitoring
- The majority of directors have concerns about vaccine safety and these concerns largely mirror those of the general parent population
- Many of these immunization attitudes and beliefs are associated with decreased director compliance with Washington State's child care immunization education or monitoring requirements