

Celeste Philip, MD, MPH Surgeon General and Secretary

Vision: To be the Healthiest State in the Nation

#### MEMORANDUM

DATE April 19, 2017

TO County Health Department Directors/Administrators

- Carina Blackmore, DVM, PhD, Dipl ACVPM, CPM 20 Rach FROM: Acting Director, Division of Disease Control and Health Protection
- SUBJECT: Assessment of County Health Department Immunization Coverage Levels in 2-Year-Old Children (2017)

#### INFORMATION ONLY

In January 2017, the Florida Department of Health's (Department) Immunization Section completed an annual immunization assessment of all children from 12 to 35 months of age whose parents rely on a county health department (CHD) as their child's immunization home. The Florida State Health Online Tracking System (SHOTS) provided the population and data collection for this assessment, with a common review date of January 1, 2017.

The purpose of this assessment was to estimate immunization coverage levels statewide and for each of Florida's 67 counties, for children from 24 to 35 months of age as well as children from 12 to 23 months of age. The results are based on the following recommendations of the Advisory Committee on Immunization Practices:

Children from 24 to 35 months of age should complete the 4:3:1:3:3:1:4 immunization series (four or more doses of diphtheria, tetanus toxoids, and acellular pertussis [DTaP] vaccine, three or more doses of inactivated poliovirus vaccine [IPV], one or more doses of measles, mumps and rubella [MMR] vaccine, three or more doses of Haemophilus influenzae type b [Hib] vaccine, three or more doses of hepatitis B vaccine, one or more doses of varicella vaccine [VZV], and four or more doses of pneumococcal conjugate vaccine [PCV] by 24 months of age [age 2]).

Children from 12 to 23 months of age should complete the 3:2:2:2 immunization series (three or more doses of DTaP vaccine, two or more doses of IPV, two or more doses of Hib vaccine, and two or more doses of hepatitis B vaccine) by 12 months of age [age 1]).

The national coverage goal for 2-year-old children to complete the 4:3:1:3:3:1:4 immunization series is 80 percent, while the statewide CHD immunization coverage goal is 95 percent. The national and statewide CHD immunization coverage goal for 1-year-old children to complete the 3:2:2:2 immunization series is 90 percent. The 2017 statewide CHD immunization coverage level for the 2-year-old children assessed is 92.0 percent, which is consistent with last year's 93 percent.



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Twenty-four of the 67 CHDs (36 percent) were excluded from this cohort because the "Total Clients" in their immunization home were ≤10. Of the remaining 43 CHDs, 16 (37 percent) achieved or exceeded the statewide CHD goal, six of which attained 100 percent coverage (Enclosure 1).

The 43 CHDs providing those 4,707 immunizations were broken down by site, number of 2-year-old children with a CHD as their immunization home, and immunization coverage level for the 4:3:1:3:3:1:4 immunization series. Sites with ≤10 "Total Clients" were excluded (Enclosure 2). Those CHDs not meeting the statewide CHD coverage goal may find these data useful for determining if and where pockets of need exist in one or more sites providing immunization services.

Coverage levels for the 2-year-old children assessed in the past five years (2013–2017) was compiled. For 2017, 23 of the qualifying 43 CHDs (54 percent) had a decrease in coverage from 2016, 14 improved their coverage, and five remained the same (Enclosure 3).

For this same five-year period, the number of 2-year-old children with a CHD immunization home was compiled. Twenty-five of the 67 CHDs (37 percent) could not be compared for years 2016 and 2017 due to having ≤10 "Total Clients" in either or both years. In the last year alone, 28 of the 42 qualifying CHDs (67 percent) decreased their 2-year-old population, for a 28 percent statewide population decrease (6,490 and 4,707 respectively). From 2013 to 2017, the population decreased by 59 percent (11,559 and 4,707 respectively) (Enclosure 4). Private physicians continue to lead in volume of childhood immunization service delivery, while CHDs provide about four percent only. This downward trend is evident in the steady decrease of 2-year-old children belonging to CHDs (source: Florida Department of Health, *Survey of Immunization Levels in 2-Year-Old Children 2016*, available online at www.floridahealth.gov/statistics-and-data/immunization-coverage-surveys-reports/state-surveys.html).

The 2017 statewide CHD immunization coverage level for the 1-year-old children assessed is 76.1 percent, an alarming decrease from last year (85 percent). Twenty-one CHDs (31 percent) were excluded from this cohort because the "Total Clients" in their immunization home were ≤10 percent. Of the remaining (qualifying) 46 CHDs, only eight (17 percent) achieved or exceeded the 90 percent statewide CHD goal. Of those eight CHDs, three attained 100 percent (Enclosure 5).

Children who miss the fourth dose of DTaP negatively impact statewide efforts to achieve immunization coverage goals. We must focus on the following areas to improve our 2-year-old CHD immunization coverage rates:

Administer simultaneously all vaccines a child is eligible to receive at the time of each visit.

Conduct quarterly audits, via Florida SHOTS, to ensure complete immunization coverage of children with a CHD immunization home.

Regularly schedule automated reminder and recall processes via Florida SHOTS to identify active clients and improve overall compliance with the recommended immunization schedule, particularly for the fourth dose of DTaP and PCV vaccines.

The Immunization Section's Florida SHOTS development team will continue to work with the Florida Women, Infants, and Children (WIC) Information System and Assessment of Electronic Benefits Transfer (FL-WiSE) system's IT team towards completion of the system integration between Florida SHOTS and FL-WiSE.

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Use clinical and WIC visits to assess immunization status, encourage vaccination compliance, and provide appropriate immunizations.

The Immunization Section's Quality Improvement Clinical team is available to provide technical assistance and guidance as needed. These collaborative efforts will help us reach our coverage goals for Florida's 2-year-old children and enable us to achieve our common goal of providing Florida's infant population with the best protection possible against vaccine-preventable diseases.

CB/RMG/aw Enclosures

cc: Kelli T. Wells, MD **Deputy Secretary for Health** Cindy Dick, MBA, CPM Assistant Deputy Secretary for Health Paul D. Myers, MS, Deputy Secretary County Health Systems Shannon Hughes, Director **Division of Community Health Promotion** Russell W. Eggert, MD, MPH, FACPM, FAAFP, Chief Bureau of Epidemiology Shay Chapman, Chief **Bureau of Family Health Services** Jeanne Lane, CPM, ASQ-CQIA, Interim Chief Bureau of Performance Assessment and Improvement Robert M. Griffin, Administrator Immunization Section **County Health Department Nursing Directors** Immunization Section Field Staff

County Health	4:3:1:	Total	
Department	<b>%</b> <sup>4</sup>		Clients <sup>6</sup>
Alachua	91.0	111	122
Baker	100.0	13	13
Bay	69.2	9	13
Bradford	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Brevard	97.0	161	166
Broward	91.0	223	245
Calhoun	90.0	45	50
Charlotte	100.0	63	63
Citrus	88.2	15	17
Clay	94.2	81	86
Collier	94.7	177	187
Columbia	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Dade	95.5	190	199
Desoto	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Dixie	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Duval	90.7	370	408
Escambia	91.7	189	206
Flagler	97.4	75	77
Franklin	98.6	69	70
Gadsden	62.5	15	24
Gilchrist	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Glades	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Gulf	96.2	51	53
Hamilton	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Hardee	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Hendry	93.8	61	65
Hernando	97.6	40	41
Highlands	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Hillsborough	92.3	24	26
Holmes	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Indian River	100.0	137	137
Jackson	88.5	23	26
Jefferson	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Lafayette	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>

County Health	4:3:1:	Total	
Department	$\%^4$	% <sup>4</sup> Complete <sup>5</sup>	
Lake	92.3	96	104
Lee	93.5	144	154
Leon	92.6	50	54
Levy	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Liberty	96.3	26	27
Madison	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Manatee	100.0	26	26
Marion	81.4	35	43
Martin	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Monroe	88.3	264	299
Nassau	84.2	16	19
Okaloosa	90.8	69	76
Okeechobee	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Orange	90.9	219	241
Osceola	82.5	283	343
Palm Beach	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Pasco	99.1	114	115
Pinellas	99.0	101	102
Polk	92.8	359	387
Putnam	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Santa Rosa	82.6	19	23
Sarasota	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Seminole	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
St Johns	100.0	25	25
St Lucie	97.6	40	41
Sumter	92.9	13	14
Suwannee	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Taylor	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Union	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Volusia	93.8	60	64
Wakulla	100.0	25	25
Walton	87.9	203	231
Washington	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Statewide <sup>8</sup>	92.0	4,329	4,707

<sup>1</sup>Children in this cohort were 24-35 months of age on January 1, 2017.

<sup>2</sup>Data collected from the Florida State Health Online Tracking System (SHOTS) on January 11, 2017.

<sup>3</sup>4:3:1:3:3:1:4 = Measure of four or more doses of diphtheria, tetanus toxoids, and acellular pertussis (DTaP) vaccine, three or more doses of inactivated poliovirus vaccine (IPV), one or more doses of measles, mumps and rubella (MMR) vaccine, three or more doses of *Haemophilus influenzae* type b (Hib) vaccine, three or more doses of hepatitis B vaccine, one or more doses of varicella vaccine (VZV), and four or more doses of pneumococcal conjugate vaccine (PCV).

<sup>4</sup>Immunization levels (unweighted) presented as point estimate (%) for the 4:3:1:3:3:1:4 measure.

<sup>5</sup>Estimated number of children who have received all vaccines necessary to complete the measure by 24 months of age.

<sup>6</sup>Total 2-year-old children with a county health department immunization home.

<sup>7</sup>County-specific data (from Florida SHOTS) excluded due to ≤10 "Total Clients" in their immunization home.

<sup>8</sup>Adjusted to exclude county health departments with ≤10 "Total Clients" in their immunization home.

	4:3:1:3:	: <b>3:1:4</b> <sup>4</sup>	Total	
County Health Department, by Site	<b>%</b> <sup>5</sup>		Clients <sup>7</sup>	
Alachua CHD	91.0	111	122	
Gainesville (VFC Pin: 017001)	91.7	100	109	
Alachua Clinic (VFC Pin: 019000)	81.8	9	11	
South West Clinic (VFC Pin: 700413)	100.0	2	2	
Baker CHD (VFC Pin: 020035)	100.0	13	13	
Bay CHD (VFC Pin: 030044)	69.2	9	13	
Bradford CHD (VFC Pin: 040034)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Brevard CHD	97.0	161	166	
Melbourne (VFC Pin: 059005)	97.6	80	82	
Titusville (VFC Pin: 059004)	97.1	34	35	
Viera (VFC Pin: 059007)	95.9	47	49	
Broward CHD	91.0	223	245	
Mills Health Center (VFC Pin: 061310)	92.4	157	170	
Paul Hughes Health Center (VFC Pin: 069022)	88.0	66	75	
Calhoun CHD (VFC Pin: 070001)	90.0	45	50	
Charlotte CHD (VFC Pin: 080010)	100.0	63	63	
Citrus CHD	88.2	15	17	
Inverness (VFC Pin: 099000)	87.5	7	8	
Lecanto (VFC Pin: 097001)	88.9	8	9	
Clay CHD	94.2	81	86	
Green Cove Springs (VFC Pin: 700041)	100.0	3	3	
North Clinic (VFC Pin: 100043)	94.0	78	83	
Collier CHD	94.7	177	187	
Immokalee (VFC Pin: 119003)	94.1	64	68	
Naples (VFC Pin: 110037)	95.0	113	119	
Columbia CHD (VFC Pin: 120001)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Dade CHD	95.5	190	199	
Health District Center (VFC Pin: 137003)	97.8	88	90	
Immunization Outreach (VFC Pin: 137002)	42.9	3	7	
Little Haiti Health Center (VFC Pin: 139047)	97.3	36	37	
North Miami Hlth Cnt (VFC Pin: 139029)	100.0	16	16	
Refugee Health Center (VFC Pin: 137001)	33.3	1	3	
West Perrine Health Center (VFC Pin: 139012)	100.0	46	46	
Desoto CHD (VFC Pin: 140001)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Dixie CHD (VFC Pin: 150001)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Duval CHD	90.7	370	408	
Beaches Family Health Center (VFC Pin: 169003)	90.2	46	51	
Center For Women And Children (VFC Pin: 169008)	91.7	187	204	
South Jax Imm Center (VFC Pin: 169002)	96.5	55	57	
The Immunization Center (VFC Pin: 169007)	85.4	82	96	
Escambia CHD (VFC Pin: 170041)	91.7	189	206	
Flagler CHD (VFC Pin: 180033)	97.4	75	77	
Franklin CHD	98.6	69	70	

	4:3:1:3:	: <b>3:1:4</b> <sup>4</sup>	Total	
County Health Department, by Site	<b>%</b> <sup>5</sup>		Clients <sup>7</sup>	
Franklin CHD (VFC Pin: 190001)	98.4	60	61	
Annex (VFC Pin: 199000)	100.0	9	9	
Gadsden CHD (VFC Pin: 207001)	62.5	15	24	
Gilchrist CHD (VFC Pin: 210065)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Glades CHD (VFC Pin: 220001)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Gulf CHD	96.2	51	53	
Port St. Joe (VFC Pin: 230001)	95.6	43	45	
Wewahitchka (VFC Pin: 239000)	100.0	8	8	
Hamilton CHD (VFC Pin: 240033)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Hardee CHD (VFC Pin: 250037)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Hendry CHD	93.8	61	65	
Clewiston (VFC Pin: 260036)	81.0	17	21	
Labelle (VFC Pin: 260007)	100.0	44	44	
Hernando CHD	97.6	40	41	
Spring Hill (VFC Pin: 279001)	96.7	29	30	
Brooksville (VFC Pin: 270001)	100.0	11	11	
Highlands CHD	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Hillsborough CHD	92.3	24	26	
Main Immunizations (VFC Pin: 299017)	94.4	17	18	
Refugee Clinic	87.5	7	8	
Holmes CHD (VFC Pin: 300034)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Indian River CHD (VFC Pin: 319000)	100.0	137	137	
Jackson CHD (VFC Pin: 320001)	88.5	23	26	
Jefferson CHD (VFC Pin: 330001)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Lafayette CHD (VFC Pin: 340001)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Lake CHD	92.3	96	104	
Clermont (VFC Pin: 700062)	94.4	17	18	
Leesburg (VFC Pin: 700010)	94.4	51	54	
Umatilla (VFC Pin: 357002)	87.5	28	32	
Lee CHD	93.5	144	154	
Michigan Avenue (VFC Pin: 360046)	93.5	143	153	
Pondella Clinic (VFC Pin: 369000)	100.0	1	1	
Leon CHD	92.6	50	54	
Pharmacy (VFC Pin: 370041)	100.0	2	2	
Roberts And Stevens (VFC Pin: 377001)	92.3	48	52	
Levy CHD (VFC Pin: 380034)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Liberty CHD (VFC Pin: 390003)	96.3	26	27	
Madison CHD (VFC Pin: 400036)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Manatee CHD (VFC Pin: 410001)	100.0	26	26	
Marion CHD (VFC Pin: 420001)	81.4	35	43	
Martin CHD (VFC Pin: 430001)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Monroe CHD	88.3	264	299	

	4:3:1:3:	<b>3:1:4</b> <sup>4</sup>	Total	
County Health Department, by Site	<b>%</b> <sup>5</sup>		Clients <sup>7</sup>	
Gato (VFC Pin: 440001)	66.7	2	3	
Roosevelt Sands Center (VFC Pin: 449000)	89.8	194	216	
Roth Building - Tavernier (VFC Pin: 449001)	70.8	17	24	
Ruth Ivins Center - Marathon (VFC Pin: 449002)	91.1	51	56	
Nassau CHD	84.2	16	19	
Callahan Clinic (VFC Pin: 450011)	81.3	13	16	
Fernandina Beach Clinic	100.0	1	1	
Yulee Clinic (VFC Pin: 450012)	100.0	2	2	
Okaloosa CHD	90.8	69	76	
Crestview (VFC Pin: 469000)	92.9	13	14	
Fort Walton Beach (VFC Pin: 460001)	90.3	56	62	
Okeechobee CHD (VFC Pin: 470037)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Orange CHD	90.9	219	241	
Bithlo (VFC Pin: 700418)	100.0	2	2	
Central Immunizations (VFC Pin: 487003)	91.9	193	210	
Employee Health	100.0	1	1	
Engelwood (VFC Pin: 700420)	92.3	12	13	
Epidemiology (VFC Pin: 487001)	0.0	0	1	
Refugee (VFC Pin: 700290)	75.0	3	4	
Taft (VFC Pin: 700421)	80.0	8	10	
Osceola CHD	82.5	283	343	
Imm Clinic (VFC Pin: 497001)	82.5	198	240	
Poinciana (VFC Pin: 499001)	85.7	54	63	
School Health (VFC Pin: 497003)	100.0	2	2	
St. Cloud (VFC Pin: 499000)	75.0	3	4	
Stadium Place (VFC Pin: 497002)	76.5	26	34	
Palm Beach CHD	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Pasco CHD	99.1	114	115	
Land O Lakes Clinic	100.0	1	1	
Dade City (VFC Pin: 517001)	100.0	32	32	
NPR (VFC Pin: 519001)	97.6	41	42	
Zephyrhills Clinic (VFC Pin: 519004)	100.0	40	40	
Pinellas CHD	99.0	101	102	
Clearwater (VFC Pin: 527002)	100.0	33	33	
Midcounty (VFC Pin: 700069)	100.0	24	24	
Pinellas Park (VFC Pin: 527005)	100.0	17	17	
St Petersburg (VFC Pin: 527001)	93.8	15	16	
Tarpon Springs (VFC Pin: 527006)	100.0	12	12	
Polk CHD	92.8	359	387	
Auburndale (VFC Pin: 539003)	95.9	94	98	
Lake Wales (VFC Pin: 539001)	86.0	37	43	
Lakeland (VFC Pin: 530001)	91.8	180	196	

	4:3:1:3	<b>4:3:1:3:3:1:4</b> <sup>4</sup>		
County Health Department, by Site	<b>%</b> <sup>5</sup>		Clients <sup>7</sup>	
Haines City (VFC Pin: 700119)	96.0	48	50	
Putnam CHD (VFC Pin: 540037)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Santa Rosa CHD	82.6	19	23	
Milton Clinic (VFC Pin: 570036)	82.4	14	17	
Gulf Breeze (VFC Pin: 579002)	83.3	5	6	
Sarasota CHD	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Seminole CHD (VFC Pin: 590051)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
St Johns CHD (VFC Pin: 550037)	100.0	25	25	
St Lucie CHD (VFC Pin: 569005)	97.6	40	41	
Sumter CHD	92.9	13	14	
Bushnell (VFC Pin: 600034)	100.0	7	7	
Wildwood (VFC Pin: 609000)	85.7	6	7	
Suwannee CHD (VFC Pin: 610001)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Taylor CHD (VFC Pin: 620034)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Union CHD	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	
Volusia CHD	93.8	60	64	
Daytona Beach (VFC Pin: 640058)	97.2	35	36	
Deland	100.0	7	7	
Deltona	100.0	14	14	
Orange (VFC Pin: 700508)	0.0	0	3	
New Smyrna Beach (VFC Pin: 649001)	100.0	4	4	
Wakulla CHD (VFC Pin: 650033)	100.0	25	25	
Walton CHD	87.9	203	231	
Walton CHD (VFC Pin: 660001)	90.5	105	116	
Coastal Branch (VFC Pin: 669001)	85.2	98	115	
Washington CHD (VFC Pin: 670033)	N/A <sup>8</sup>	N/A <sup>8</sup>	N/A <sup>8</sup>	

<sup>1</sup>Children in this cohort were 24-35 months of age on January 1, 2017.

<sup>2</sup>Data collected from the Florida State Health Online Tracking System (SHOTS) on January 11, 2017.

<sup>3</sup> Sites with no clients were removed from this report.

<sup>4</sup>4:3:1:3:3:1:4 = Measure of four or more doses of diphtheria, tetanus toxoids, and acellular pertussis (DTaP) vaccine, three or more doses of poliovirus vaccine (IPV), one or more doses of measles, mumps and rubella (MMR) vaccine, three or more doses of *Haemophilus influenzae* type b (Hib) vaccine, three or more doses of hepatitis B vaccine, one or more doses of varicella vaccine (VZV), and four or more doses of pneumococcal conjugate vaccine (PCV).

<sup>5</sup>Immunization levels (unweighted) presented as point estimate (%) for the 4:3:1:3:3:1:4 measure.

<sup>6</sup>Estimated number of children who have received all vaccines necessary to complete the measure by 24 months of age. <sup>7</sup>Total 2-year-old children with a county health department immunization home.

<sup>8</sup>County-specific data (from Florida SHOTS) excluded due to ≤10 "Total Clients" in their immunization home.

# County Health Department Immunization Clients Coverage Levels at 24 Months of Age<sup>1</sup> Florida<sup>2</sup>, by County, 2013–2017

County Health	% Fully Immunized for 4:3:1:3:3:1:4 <sup>4</sup>				: <b>4</b> <sup>4</sup>
Department	2013	2014	2015	2016	2017
Alachua	91	90	96	95	91.0
Baker	81	92	78	94	100.0
Bay	72	73	92	95	69.2
Bradford	N/A <sup>5</sup>	100	N/A <sup>5</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>
Brevard	95	98	99	99	97.0
Broward	N/A <sup>5</sup>	50	97	95	91.0
Calhoun	84	95	88	96	90.0
Charlotte	93	77	89	100	100.0
Citrus	95	94	98	100	88.2
Clay	93	88	93	95	94.2
Collier	94	95	96	99	94.7
Columbia	N/A <sup>5</sup>	56	N/A <sup>5</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>
Dade	93	91	92	95	95.5
Desoto	86	67	80	N/A <sup>5</sup>	N/A <sup>5</sup>
Dixie	90	85	88	80	N/A <sup>5</sup>
Duval	89	89	89	89	90.7
Escambia	97	97	93	81	91.7
Flagler	100	98	99	89	97.4
Franklin	100	100	97	98	98.6
Gadsden	98	80	97	78	62.5
Gilchrist	94	93	88	91	N/A <sup>5</sup>
Glades	94	75	N/A <sup>5</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>
Gulf	96	91	100	94	96.2
Hamilton	100	82	N/A <sup>5</sup>	100	N/A <sup>5</sup>
Hardee	98	93	100	N/A <sup>5</sup>	N/A <sup>5</sup>
Hendry	91	85	97	87	93.8
Hernando	93	95	90	93	97.6
Highlands	100	100	100	100	N/A <sup>5</sup>
Hillsborough	100	82	76	64	92.3
Holmes	91	81	100	N/A <sup>5</sup>	N/A <sup>5</sup>
Indian River	100	100	100	100	100.0
Jackson	78	82	73	83	88.5
Jefferson	94	88	60	N/A <sup>5</sup>	N/A <sup>5</sup>
Lafayette	N/A <sup>5</sup>	83	N/A <sup>5</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>
Lake	93	94	93	95	92.3
Lee	85	85	70	97	93.5
Leon	95	95	94	98	92.6
Levy	92	90	92	88	N/A <sup>5</sup>
Liberty	96	88	100	100	96.3
Madison	75	88	91	87	N/A <sup>5</sup>
Manatee	76	96	97	100	100.0

## County Health Department Immunization Clients Coverage Levels at 24 Months of Age<sup>1</sup> Florida<sup>2</sup>, by County, 2013–2017

County Health	% Fully Immunized for 4:3:1:3:3:1:4 <sup>4</sup>				: <b>4</b> <sup>4</sup>
Department	2013	2014	2015	2016	2017
Marion	88	88	80	84	81.4
Martin	87	93	N/A <sup>5</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>
Monroe	90	91	89	94	88.3
Nassau	N/A <sup>5</sup>	100	78	N/A <sup>5</sup>	84.2
Okaloosa	98	97	98	98	90.8
Okeechobee	N/A <sup>5</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>
Orange	88	83	93	95	90.9
Osceola	95	90	92	96	82.5
Palm Beach	88	82	N/A <sup>5</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>
Pasco	98	99	96	98	99.1
Pinellas	98	96	99	99	99.0
Polk	83	89	94	93	92.8
Putnam	88	77	100	91	N/A <sup>5</sup>
Santa Rosa	93	78	85	96	82.6
Sarasota	91	90	92	98	N/A <sup>5</sup>
Seminole	97	98	85	100	N/A <sup>5</sup>
St Johns	92	79	100	95	100.0
St Lucie	90	89	94	96	97.6
Sumter	71	97	98	100	92.9
Suwannee	98	95	95	N/A <sup>5</sup>	N/A <sup>5</sup>
Taylor	N/A <sup>5</sup>	31	N/A <sup>5</sup>	N/A <sup>5</sup>	N/A <sup>5</sup>
Union	100	N/A <sup>5</sup>	N/A <sup>5</sup>	82	N/A <sup>5</sup>
Volusia	95	91	92	95	93.8
Wakulla	100	100	100	100	100.0
Walton	88	85	84	90	87.9
Washington	100	100	100	100	N/A <sup>5</sup>
State Totals <sup>6</sup>	88	88	91	93	92.0

<sup>1</sup>Children in this cohort were 24-35 months of age on January 1 of each year indicated.

<sup>2</sup>Data collected from the Florida State Health Online Tracking System (SHOTS) on January 11, 2017. <sup>3</sup>4:3:1:3:3:1:4 = Measure of four or more doses of diphtheria, tetanus toxoids, and acellular pertussis (DTaP) vaccine, three or more doses of inactivated poliovirus vaccine (IPV), one or more doses of measles, mumps and rubella (MMR) vaccine, three or more doses of *Haemophilus influenzae* type b (Hib) vaccine, three or more doses of hepatitis B vaccine, one or more doses of varicella vaccine (VZV), and four or more doses of pneumococcal conjugate vaccine (PCV).

<sup>4</sup>Immunization levels (unweighted) presented as point estimate (%) for the 4:3:1:3:3:1:4 measure. For years 2013–2016 the percent was rounded up.

<sup>5</sup>County-specific data (from Florida SHOTS) excluded due to ≤10 "Total Clients" in their immunization home. <sup>6</sup>Adjusted to exclude county health departments with ≤10 "Total Clients" in their immunization home.

# County Health Department Immunization Clients 24–35 Months of Age<sup>1</sup> Florida<sup>2</sup>, by County, 2013–2017

County Health	Number of Total Clients <sup>3</sup>				
Department	2013	2014	2015	2016	2017
Alachua	163	143	122	129	122
Baker	58	52	23	17	13
Bay	95	104	49	39	13
Bradford	N/A <sup>4</sup>	11	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>
Brevard	206	164	167	209	166
Broward	N/A <sup>4</sup>	223	107	238	245
Calhoun	31	59	51	24	50
Charlotte	182	146	83	67	63
Citrus	59	54	48	19	17
Clay	45	51	56	119	86
Collier	379	361	352	275	187
Columbia	N/A <sup>4</sup>	18	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>
Dade	450	504	418	485	199
Desoto	21	27	20	N/A <sup>4</sup>	N/A <sup>4</sup>
Dixie	31	40	33	25	N/A <sup>4</sup>
Duval	1,222	1,247	1,071	793	408
Escambia	689	387	230	134	206
Flagler	120	96	88	90	77
Franklin	15	37	60	57	70
Gadsden	82	108	70	49	24
Gilchrist	48	29	33	23	N/A <sup>4</sup>
Glades	18	12	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>
Gulf	25	35	22	34	53
Hamilton	14	17	N/A <sup>4</sup>	11	N/A <sup>4</sup>
Hardee	97	61	23	N/A <sup>4</sup>	N/A <sup>4</sup>
Hendry	104	88	60	61	65
Hernando	73	78	67	58	41
Highlands	12	22	11	11	N/A <sup>4</sup>
Hillsborough	475	415	196	152	26
Holmes	44	31	13	N/A <sup>4</sup>	N/A <sup>4</sup>
Indian River	263	249	211	163	137
Jackson	50	50	41	41	26
Jefferson	18	16	15	N/A <sup>4</sup>	N/A <sup>4</sup>
Lafayette	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>
Lake	159	143	136	102	104
Lee	266	184	181	132	154
Leon	110	96	52	52	54
Levy	37	29	24	16	N/A <sup>4</sup>
Liberty	25	24	20	31	27
Madison	76	68	34	15	N/A <sup>4</sup>
Manatee	70	56	34	42	26

# **County Health Department Immunization Clients** 24–35 Months of Age<sup>1</sup> Florida<sup>2</sup>, by County, 2013–2017

County Health	Number of Total Clients <sup>3</sup>				
Department	2013	2014	2015	2016	2017
Marion	391	251	113	92	43
Martin	108	29	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>
Monroe	273	289	293	282	299
Nassau	N/A <sup>4</sup>	12	23	N/A <sup>4</sup>	19
Okaloosa	128	98	190	169	76
Okeechobee	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>
Orange	562	393	390	346	241
Osceola	547	469	421	363	343
Palm Beach	252	197	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>
Pasco	213	137	99	81	115
Pinellas	406	276	122	92	102
Polk	803	679	548	423	387
Putnam	59	52	20	11	N/A <sup>4</sup>
Santa Rosa	145	154	123	52	23
Sarasota	898	802	490	374	N/A <sup>4</sup>
Seminole	191	164	147	51	N/A <sup>4</sup>
St Johns	63	53	32	21	25
St Lucie	94	73	77	49	41
Sumter	58	63	53	25	14
Suwannee	46	39	22	N/A <sup>4</sup>	N/A <sup>4</sup>
Taylor	N/A <sup>4</sup>	13	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>
Union	11	N/A <sup>4</sup>	N/A <sup>4</sup>	17	N/A <sup>4</sup>
Volusia	224	162	119	93	64
Wakulla	22	18	16	28	25
Walton	215	214	187	190	231
Washington	18	17	24	18	N/A <sup>4</sup>
State Totals <sup>5</sup>	11,559	10,201	7,730	6,490	4,707

<sup>1</sup>Children in this cohort were 24-35 months of age on January 1 of each year indicated.

<sup>2</sup>Data collected from the Florida State Health Online Tracking System (SHOTS) on January 11, 2017. <sup>3</sup>Total 2-year-old children with a county health department (CHD) immunization home.

<sup>4</sup>County-specific data (from Florida SHOTS) excluded due to ≤10 "Total Clients" in their immunization home.

<sup>5</sup>Adjusted to exclude county health departments with ≤10 "Total Clients" in their immunization home.

County Health	3:2	Total	
Department	<b>%</b> <sup>4</sup>	<b>Complete</b> <sup>5</sup>	Clients <sup>6</sup>
Alachua	87.1	101	116
Baker	58.8	10	17
Bay	100.0	17	17
Bradford	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Brevard	92.4	134	145
Broward	66.9	335	501
Calhoun	92.8	64	69
Charlotte	87.3	48	55
Citrus	72.2	13	18
Clay	92.3	24	26
Collier	76.3	129	169
Columbia	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Dade	70.9	407	574
Desoto	81.8	9	11
Dixie	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Duval	79.8	364	456
Escambia	82.5	226	274
Flagler	67.1	49	73
Franklin	87.7	64	73
Gadsden	53.3	8	15
Gilchrist	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Glades	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Gulf	88.4	38	43
Hamilton	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Hardee	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Hendry	88.2	45	51
Hernando	78.8	26	33
Highlands	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Hillsborough	66.7	30	45
Holmes	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Indian River	97.9	142	145
Jackson	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Jefferson	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Lafayette	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>

County Health	3:2	Total	
Department	<b>%</b> <sup>4</sup>		Clients <sup>6</sup>
Lake	66.9	95	142
Lee	85.3	139	163
Leon	55.4	31	56
Levy	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Liberty	100.0	30	30
Madison	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Manatee	74.5	38	51
Marion	69.9	51	73
Martin	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Monroe	90.0	287	319
Nassau	76.0	38	50
Okaloosa	64.4	87	135
Okeechobee	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Orange	60.8	124	204
Osceola	56.2	241	429
Palm Beach	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Pasco	82.8	72	87
Pinellas	94.9	75	79
Polk	73.9	306	414
Putnam	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Santa Rosa	72.2	13	18
Sarasota	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Seminole	57.9	11	19
St Johns	73.9	17	23
St Lucie	75.6	31	41
Sumter	86.7	13	15
Suwannee	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Taylor	N/A <sup>7</sup>	N/A <sup>7</sup>	N/A <sup>7</sup>
Union	70.6	12	17
Volusia	82.7	62	75
Wakulla	88.9	24	27
Walton	82.3	241	293
Washington	100.0	15	15
Statewide <sup>8</sup>	76.1	4,336	5,701

<sup>1</sup>Children in this cohort were 12-23 months of age on January 1, 2017.

<sup>2</sup>Data collected from the Florida State Health Online Tracking System (SHOTS) on January 11, 2017.

<sup>3</sup>3:2:2:2 = Measure of three or more doses of diphtheria, tetanus toxoids, and acellular pertussis (DTaP) vaccine, two or more doses of inactivated poliovirus vaccine (IPV), two or more doses of *Haemophilus influenzae* type b (Hib) vaccine, and two or more doses of hepatitis B.

<sup>4</sup>Immunization levels (unweighted) presented as point estimate (%) for the 3:2:2:2 measure.

<sup>5</sup>Estimated number of children who have received all vaccines necessary to complete the measure by 12 months of age.

<sup>6</sup>Total 1-year-old children with a county health department immunization home.

<sup>7</sup>County-specific data (from Florida SHOTS) excluded due to ≤10 "Total Clients" in their immunization home.

<sup>8</sup>Adjusted to exclude county health departments with ≤10 "Total Clients" in their immunization home.