

## Supplemental Online Content

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This supplemental material has been provided by the authors to give readers additional information about their work.

**eTable 1: Prevalence of complete hepatitis B vaccination in U.S.-born children and adolescents (2-18 years) through self-reported vaccination history (survey years: 1999-2016)**

	1999-2004		2005-2010		2011-2016		Trends Analysis
Demographic Variables	n	Adjusted % (95% CI)	n	Adjusted % (95% CI)	n	Adjusted % (95% CI)	P-value
<b>Overall</b>	8158	<b>74.5</b> (72.0-76.9)	7128	<b>89.3</b> (87.8-90.5)	6587	<b>87.4</b> (85.9-88.8)	<b>&lt;0.001</b>
<b>Sex</b>							
Male	4097	<b>75.8</b> (72.7-78.7)	3657	<b>88.7</b> (86.9-90.3)	3376	<b>87.6</b> (85.9-89.2)	<b>&lt;0.001</b>
Female	4061	<b>73.2</b> (70.8-75.4)	3471	<b>89.8</b> (88.0-91.4)	3211	<b>87.2</b> (85.2-89.0)	<b>&lt;0.001</b>
<b>Age groups (years)</b>							
2-5	1288	<b>83.5</b> (80.6-86.1)	1561	<b>88.1</b> (85.6-90.1)	1493	<b>86.8</b> (84.6-88.8)	0.073
6-10	1931	<b>81.1</b> (78.4-83.5)	2069	<b>92.1</b> (90.0-93.9)	2201	<b>90.8</b> (89.0-92.4)	<b>&lt;0.001</b>
11-13	1816	<b>71.3</b> (68.1-74.4)	1313	<b>90.9</b> (88.4-92.9)	1194	<b>87.5</b> (84.8-89.8)	<b>&lt;0.001</b>
14-18	3123	<b>65.8</b> (61.2-70.2)	2185	<b>86.6</b> (84.3-88.6)	1699	<b>84.7</b> (81.8-87.2)	<b>&lt;0.001</b>
<b>Race/Ethnicity</b>							
Non-Hispanic White	2330	<b>74.3</b> (70.7-77.6)	2239	<b>88.7</b> (86.5-90.6)	1773	<b>87.5</b> (85.3-89.4)	<b>&lt;0.001</b>
Non-Hispanic Black	2805	<b>72.3</b> (68.9-75.4)	1945	<b>87.0</b> (83.8-89.6)	1787	<b>85.5</b> (81.2-89.0)	<b>&lt;0.001</b>
Mexican American	2423	<b>76.1</b> (71.9-79.9)	1955	<b>91.5</b> (89.5-93.2)	1419	<b>88.2</b> (85.8-90.3)	<b>&lt;0.001</b>
Hispanic	296	<b>82.2</b> (75.6-87.3)	594	<b>93.3</b> (89.8-95.6)	722	<b>86.7</b> (83.2-89.5)	<b>0.268</b>
Non-Hispanic Asian	0		0		451	<b>87.9</b> (83.5-91.3)	

Other-Multiracial	304	<b>73.1</b> (63.3-81.0)	395	<b>91.5</b> (86.8-94.6)	435	<b>90.2</b> (85.8-93.4)	<b>&lt;0.001</b>
<b>Education Level (Age ≥6)</b>							
≤Elementary School	2624	<b>77.1</b> (74.7-79.3)	2643	<b>92.4</b> (90.6-93.9)	2737	<b>89.7</b> (87.7-91.3)	<b>&lt;0.001</b>
Middle School	2086	<b>75.4</b> (71.6-78.7)	1336	<b>88.6</b> (85.9-90.9)	1159	<b>87.7</b> (85.1-90.0)	<b>&lt;0.001</b>
≥ High School	2156	<b>62.9</b> (58.0-67.6)	1587	<b>86.0</b> (83.4-88.3)	1195	<b>84.1</b> (80.7-87.0)	<b>&lt;0.001</b>
<b>Insurance Status</b>							
Insured	6935	<b>75.7</b> (73.1-78.2)	6358	<b>90.1</b> (88.7-91.3)	6149	<b>88.0</b> (86.5-89.4)	<b>&lt;0.001</b>
Uninsured	1116	<b>64.7</b> (58.9-70.1)	751	<b>81.6</b> (76.6-85.7)	430	<b>79.0</b> (72.4-84.3)	<b>&lt;0.001</b>
<b>Household Size</b>							
1-2	454	<b>67.3</b> (59.3-74.3)	356	<b>82.9</b> (77.9-87.0)	251	<b>88.0</b> (81.0-92.6)	<b>&lt;0.001</b>
3-5	5495	<b>76.0</b> (73.4-78.4)	4852	<b>89.8</b> (88.5-91.0)	4348	<b>87.9</b> (85.7-89.7)	<b>&lt;0.001</b>
6+	2209	<b>71.1</b> (65.1-76.4)	1920	<b>88.7</b> (84.5-91.8)	1988	<b>86.1</b> (83.4-88.5)	<b>&lt;0.001</b>
<b>Family poverty income ratio (PIR)</b>							
<1	2466	<b>72.8</b> (69.3-76.0)	2099	<b>88.6</b> (86.0-90.7)	2109	<b>86.0</b> (83.3-88.3)	<b>&lt;0.001</b>
≥1	5163	<b>75.8</b> (73.3-78.2)	4650	<b>89.6</b> (87.9-91.1)	4034	<b>88.2</b> (86.4-89.7)	<b>&lt;0.001</b>

**eTable 2: Prevalence of complete hepatitis B vaccination in foreign-born children and adolescents (2-18 years) through self-reported vaccination history (survey years: 1999-2016)**

	1999-2004		2005-2010		2011-2016		Trends Analysis
Demographic Variables	n	Adjusted % (95% CI)	n	Adjusted % (95% CI)	n	Adjusted % (95% CI)	P-value
Overall	954	67.4 (61.9-72.5)	661	89.0 (85.1-92.0)	554	85.4 (82.0-88.3)	<0.001
<b>Sex</b>							
Male	506	65.1 (57.4-72.1)	328	87.1 (81.7-91.1)	270	87.2 (82.2-91.0)	<0.001
Female	448	69.9 (63.7-75.5)	333	90.9 (86.1-94.1)	284	83.6 (77.8-88.1)	0.001
<b>Age groups (years)</b>							
2-5	49	71.2 (53.2-84.4)	42	92.9 (78.6-97.9)	50	91.9 (81.4-96.7)	0.019
6-10	152	78.9 (69.8-85.9)	155	90.7 (81.7-95.5)	123	88.7 (81.0-93.5)	0.042
11-13	195	67.2 (57.3-75.8)	137	90.5 (80.6-95.6)	110	84.4 (74.3-91.0)	0.008
14-18	558	61.1 (53.4-68.2)	327	86.8 (80.3-91.4)	271	83.5 (79.0-87.2)	<0.001
<b>Race/Ethnicity</b>							
Non-Hispanic White	66	73.7 (60.3-83.8)	62	95.2 (84.1-98.7)	22	92.4 (71.3-98.4)	0.035
Non-Hispanic Black	109	68.6 (53.9-80.2)	55	91.9 (78.7-97.2)	59	83.2 (71.3-90.8)	0.085
Mexican American	647	65.7 (59.3-71.5)	372	84.1 (79.2-88.0)	164	82.0 (73.8-88.1)	0.002
Hispanic	87	65.2 (50.5-77.5)	116	92.7 (83.7-96.9)	106	91.7 (83.6-96.0)	<0.001
Non-Hispanic Asian	0		0		182	81.7 (72.5-88.4)	

Other-Multiracial	45	<b>63.6</b> (41.4-81.2)	56	<b>85.4</b> (68.5-94.0)	21	<b>87.9</b> (64.7-96.6)	0.056
<b>Education Level (Age ≥6)</b>							
≤Elementary School	210	<b>67.4</b> (61.9-72.5)	218	<b>89.0</b> (85.1-92.0)	168	<b>85.4</b> (82.0-88.3)	<b>&lt;0.001</b>
Middle School	334	<b>69.4</b> (61.1-76.6)	182	<b>88.0</b> (78.6-93.6)	149	<b>89.6</b> (81.1-94.5)	<b>&lt;0.001</b>
≥ High School	360	<b>62.6</b> (52.6-71.5)	219	<b>86.4</b> (79.0-91.4)	187	<b>81.7</b> (75.4-86.7)	<b>0.001</b>
<b>Insurance Status</b>							
Insured	435	<b>70.1</b> (61.8-77.2)	342	<b>91.0</b> (86.1-94.3)	378	<b>87.3</b> (83.8-90.1)	<b>&lt;0.001</b>
Uninsured	511	<b>64.2</b> (57.2-70.6)	314	<b>85.6</b> (79.4-90.1)	175	<b>81.7</b> (74.4-87.2)	<b>&lt;0.001</b>
<b>Household Size</b>							
1-2	26	<b>52.9</b> (28.8-75.8)	22	<b>81.4</b> (54.3-94.2)	12	<b>72.9</b> (45.6-89.6)	0.237
3-5	501	<b>67.6</b> (58.3-75.7)	373	<b>90.2</b> (85.4-93.6)	381	<b>86.1</b> (81.8-89.6)	<b>&lt;0.001</b>
6+	427	<b>68.5</b> (60.0-75.9)	266	<b>87.5</b> (81.0-92.0)	161	<b>85.1</b> (78.6-89.8)	<b>0.001</b>
<b>Family poverty income ratio (PIR)</b>							
<1	435	<b>69.6</b> (61.7-76.4)	300	<b>88.0</b> (82.7-91.9)	203	<b>83.8</b> (75.8-89.6)	<b>0.005</b>
≥1	423	<b>66.6</b> (55.5-76.1)	297	<b>88.9</b> (83.4-92.7)	281	<b>85.7</b> (80.7-89.6)	<b>&lt;0.001</b>

**eTable 3. Prevalence of Hepatitis B vaccine-induced immunity by serology results in fully vaccinated U.S.-born children and adolescents age 2-18 years (survey years: 1999-2016)**

	1999-2004		2005-2010		2011-2016		Trends Analysis
Demographic Variables	n	Adjusted % (95% CI)	n	Adjusted % (95% CI)	n	Adjusted % (95% CI)	P-value
<b>Overall</b>	7589	<b>57.2</b> (53.8-60.6)	6940	<b>53.3</b> (51.2-55.4)	6415	<b>35.9</b> (33.7-38.2)	<b>&lt;0.001</b>
<b>Sex</b>							
Male	3815	<b>55.9</b> (51.9-59.8)	3554	<b>52.3</b> (50.0-54.9)	3288	<b>35.9</b> (33.4-38.5)	<b>&lt;0.001</b>
Female	3774	<b>58.7</b> (54.9-62.3)	3386	<b>54.4</b> (51.5-57.2)	3127	<b>35.9</b> (33.0-39.0)	<b>&lt;0.001</b>
<b>Age groups (years)</b>							
2-5	1175	<b>57.2</b> (53.1-61.2)	1468	<b>61.7</b> (58.6-64.6)	1408	<b>65.9</b> (62.2-69.3)	<b>0.002</b>
6-10	1856	<b>53.1</b> (49.6-56.5)	2043	<b>41.9</b> (38.9-45.0)	2162	<b>40.4</b> (37.4-43.5)	<b>&lt;0.001</b>
11-13	1653	<b>64.8</b> (59.8-69.5)	1294	<b>43.4</b> (39.7-47.2)	1175	<b>26.5</b> (22.9-30.5)	<b>&lt;0.001</b>
14-18	2905	<b>56.8</b> (51.8-61.6)	2135	<b>64.0</b> (60.1-67.7)	1670	<b>21.2</b> (18.2-24.6)	<b>&lt;0.001</b>
<b>Race/Ethnicity</b>							
Non-Hispanic White	2171	<b>56.5</b> (52.3-60.6)	2172	<b>53.0</b> (49.8-56.2)	1728	<b>31.9</b> (29.0-35.0)	<b>&lt;0.001</b>
Non-Hispanic Black	2624	<b>55.5</b> (51.1-59.7)	1894	<b>55.6</b> (52.3-58.8)	1750	<b>41.7</b> (37.9-45.5)	<b>&lt;0.001</b>
Mexican American	2234	<b>57.8</b> (52.6-62.8)	1902	<b>54.0</b> (50.8-57.1)	1377	<b>40.4</b> (37.2-43.6)	<b>&lt;0.001</b>
Hispanic	278	<b>71.0</b> (62.4-78.3)	585	<b>52.4</b> (47.6-57.2)	701	<b>43.9</b> (39.9-47.9)	<b>&lt;0.001</b>
Non-Hispanic Asian	0		0		435	<b>41.8</b> (37.2-46.5)	
Other-Multiracial	282	<b>56.1</b> (46.0-65.7)	387	<b>50.3</b> (43.7-56.9)	424	<b>34.3</b> (29.1-40.0)	<b>&lt;0.001</b>

<b>Education Level (Age≥6)</b>							
≤Elementary School	2472	<b>54.3</b> (50.8-57.7)	2611	<b>41.8</b> (39.1-44.6)	2688	<b>38.6</b> (35.9-41.4)	<b>&lt;0.001</b>
Middle School	1928	<b>66.5</b> (61.7-70.9)	1311	<b>47.8</b> (42.6-53.0)	1143	<b>21.3</b> (17.8-25.3)	<b>&lt;0.001</b>
≥ High School	2010	<b>54.2</b> (48.5-59.9)	1549	<b>68.7</b> (64.5-72.6)	1173	<b>21.8</b> (18.5-25.6)	<b>&lt;0.001</b>
<b>Insurance Status</b>							
Insured	6454	<b>58.1</b> (54.6-61.5)	6202	<b>53.3</b> (51.1-55.4)	5998	<b>36.1</b> (33.8-38.5)	<b>&lt;0.001</b>
Uninsured	1032	<b>51.0</b> (45.2-56.7)	720	<b>53.4</b> (49.2-57.5)	409	<b>32.8</b> (26.7-39.6)	<b>&lt;0.001</b>
<b>Household Size</b>							
1-2	419	<b>53.1</b> (46.1-60.0)	343	<b>58.1</b> (49.7-66.0)	245	<b>38.4</b> (29.8-47.7)	<b>0.020</b>
3-5	5112	<b>58.8</b> (55.5-62.1)	4723	<b>53.4</b> (51.0-55.8)	4237	<b>35.7</b> (33.1-38.3)	<b>&lt;0.001</b>
6+	2058	<b>52.3</b> (46.2-58.3)	1874	<b>51.9</b> (49.0-54.7)	1933	<b>36.3</b> (32.8-39.9)	<b>&lt;0.001</b>
<b>Family poverty income ratio (PIR)</b>							
<1	2258	<b>52.9</b> (48.4-57.4)	2042	<b>51.3</b> (47.3-55.3)	2041	<b>38.4</b> (36.0-40.9)	<b>&lt;0.001</b>
≥1	4842	<b>58.8</b> (55.1-62.4)	4528	<b>53.7</b> (51.1-56.3)	3938	<b>34.9</b> (32.3-37.6)	<b>&lt;0.001</b>



**eTable 4: Prevalence of complete hepatitis B vaccine-induced immunity by serology test in fully vaccinated foreign-born children and adolescents age 2-18 years (survey years: 1999-2016)**

	1999-2004		2005-2010		2011-2016		Trends Analysis
Demographic Variables	n	Adjusted % (95% CI)	n	Adjusted % (95% CI)	n	Adjusted % (95% CI)	P-value
<b>Overall</b>	874	<b>63.4</b> (58.2-68.4)	648	<b>69.5</b> (65.1-73.6)	528	<b>62.6</b> (57.3-67.7)	0.877
<b>Sex</b>							
Male	469	<b>59.9</b> (54.3-65.2)	321	<b>64.9</b> (56.9-72.2)	259	<b>60.4</b> (54.8-65.7)	0.857
Female	405	<b>67.2</b> (60.4-73.2)	327	<b>74.2</b> (69.4-78.4)	269	<b>65.0</b> (57.4-71.9)	0.695
<b>Age groups (years)</b>							
2-5	41	<b>78.4</b> (59.0-90.1)	42	<b>54.9</b> (37.0-71.5)	45	<b>77.5</b> (60.6-88.5)	0.937
6-10	140	<b>76.8</b> (67.9-83.9)	152	<b>68.1</b> (60.1-75.2)	120	<b>63.7</b> (52.7-73.4)	<b>0.047</b>
11-13	175	<b>67.8</b> (54.7-78.9)	135	<b>70.2</b> (59.1-79.4)	103	<b>65.3</b> (56.2-73.3)	0.757
14-18	518	<b>52.6</b> (45.3-59.8)	319	<b>72.4</b> (65.3-78.6)	260	<b>58.7</b> (49.8-67.0)	0.272
<b>Race/Ethnicity</b>							
Non-Hispanic White	64	<b>69.7</b> (56.0-80.6)	61	<b>70.7</b> (58.9-80.2)	22	<b>69.3</b> (42.6-87.2)	0.996
Non-Hispanic Black	101	<b>51.4</b> (41.1-61.7)	53	<b>51.7</b> (38.6-64.7)	56	<b>73.7</b> (60.1-83.8)	<b>0.013</b>
Mexican American	590	<b>60.1</b> (53.0-66.8)	363	<b>68.5</b> (62.5-73.9)	157	<b>66.9</b> (59.5-73.4)	0.159
Hispanic	78	<b>70.3</b> (59.7-79.1)	115	<b>71.3</b> (59.0-81.1)	101	<b>55.0</b> (42.1-67.3)	0.072
Non-Hispanic Asian	0		0		173	<b>56.6</b> (47.9-64.9)	
Other-Multiracial	41	<b>56.7</b> (37.4-74.2)	56	<b>73.6</b> (51.5-88.0)	19	<b>61.0</b> (28.6-85.9)	0.440

<b>Education Level (Age ≥6)</b>							
≤Elementary School	190	<b>72.5</b> (63.7-79.8)	215	<b>69.3</b> (61.3-76.3)	160	<b>63.6</b> (55.2-71.3)	0.141
Middle School	307	<b>61.5</b> (52.7-69.6)	175	<b>68.7</b> (59.2-76.8)	144	<b>57.8</b> (47.8-67.3)	0.564
≥ High School	335	<b>53.3</b> (42.5-63.8)	216	<b>74.2</b> (66.3-80.8)	179	<b>62.5</b> (53.1-71.0)	0.172
<b>Insurance Status</b>							
Insured	403	<b>67.0</b> (60.2-73.2)	335	<b>66.6</b> (60.1-72.6)	360	<b>62.3</b> (55.6-68.6)	0.317
Uninsured	463	<b>57.8</b> (50.9-64.4)	308	<b>74.5</b> (67.7-80.3)	167	<b>63.6</b> (54.9-71.5)	0.201
<b>Household Size</b>							
1-2	24	<b>51.1</b> (24.9-76.7)	22	<b>91.3</b> (74.5-97.4)	11	<b>84.5</b> (38.0-98.0)	0.170
3-5	460	<b>63.1</b> (56.2-69.5)	366	<b>67.2</b> (61.2-72.7)	361	<b>62.9</b> (56.5-68.9)	0.964
6+	390	<b>65.0</b> (56.5-72.6)	260	<b>71.5</b> (62.9-78.7)	156	<b>59.6</b> (48.1-70.2)	0.514
<b>Family poverty income ratio (PIR)</b>							
<1	392	<b>69.9</b> (63.1-75.9)	295	<b>76.2</b> (68.4-82.6)	191	<b>63.2</b> (56.2-69.7)	0.199
≥1	390	<b>60.2</b> (51.8-67.9)	289	<b>66.0</b> (60.0-71.6)	269	<b>63.1</b> (55.3-70.2)	0.598

**eTable 5: Prevalence of hepatitis B core antibody in U.S.-born children and adolescents age 2-18 years (survey years 1999-2016)**

	<b>1999-2004</b>	<b>2005-2010</b>	<b>2011-2016</b>	<b>Trends Analysis</b>
<b>Age groups (years)</b>	<b>Adjusted % (95% CI)</b>	<b>Adjusted % (95% CI)</b>	<b>Adjusted % (95% CI)</b>	<b><i>P</i>-value</b>
<b>Overall (n=17,531)</b>	<b>0.35 (0.14-0.90)</b>	<b>0.53 (0.31-0.93)</b>	<b>0.15 (0.09-0.27)</b>	<b>0.190</b>
<b>Age groups</b>				
<b>2-5</b>	NA	NA	NA	
<b>6-10 (n=6201)</b>	<b>0.55 (0.11-2.66)</b>	<b>0.33 (0.08-1.42)</b>	<b>0.15 (0.06-0.41)</b>	<b>0.259</b>
<b>11-13 (n=4323)</b>	<b>0.21 (0.07-0.66)</b>	<b>0.65 (0.24-1.74)</b>	<b>0.18 (0.06-0.49)</b>	<b>0.835</b>
<b>14-18 (n=7007)</b>	<b>0.26 (0.12-0.58)</b>	<b>0.64 (0.37-1.12)</b>	<b>0.14 (0.05-0.41)</b>	<b>0.326</b>

**eTable 6. Predictors of hepatitis B immunity via serology tests in fully vaccinated U.S.-born children (2-18 years) from survey years 1999-2016**

Variables	Univariable Analysis		Multivariable Analysis	
	Odds Ratio (95% CI)	P-value	Odds Ratio (95% CI)	P-value
<b>Age groups (years)</b>				
2-5	1 (Referent)		1 (Referent)	
6-10	<b>0.51</b> (0.46-0.56)	<b>&lt;0.001</b>	<b>0.51</b> (0.46-0.56)	<b>&lt;0.001</b>
11-13	<b>0.49</b> (0.43-0.56)	<b>&lt;0.001</b>	<b>0.49</b> (0.43-0.57)	<b>&lt;0.001</b>
14-18	<b>0.55</b> (0.48-0.63)	<b>&lt;0.001</b>	<b>0.55</b> (0.49-0.63)	<b>&lt;0.001</b>
<b>Sex</b>				
Male	1 (Referent)		1 (Referent)	
Female	<b>1.06</b> (0.98-1.15)	0.133	1.06 (0.98-1.15)	0.131
<b>Race</b>				
Non-Hispanic White	1 (Referent)		1 (Referent)	
Non-Hispanic Black	<b>1.15</b> (1.02-1.31)	<b>0.032</b>	<b>1.14</b> (1.00-1.30)	<b>0.045</b>
Mexican American	1.09 (0.96-1.23)	0.193	1.05 (0.93-1.19)	0.424
Hispanic	<b>1.30</b> (1.08-1.55)	<b>0.006</b>	<b>1.27</b> (1.05-1.54)	<b>0.015</b>
Non-Hispanic Asian	<b>0.79</b> (0.65-0.97)	<b>0.022</b>	<b>0.79</b> (0.65-0.96)	<b>0.017</b>
Other-Multiracial	0.99 (0.83-1.18)	0.791	0.95 (0.79-1.14)	0.566

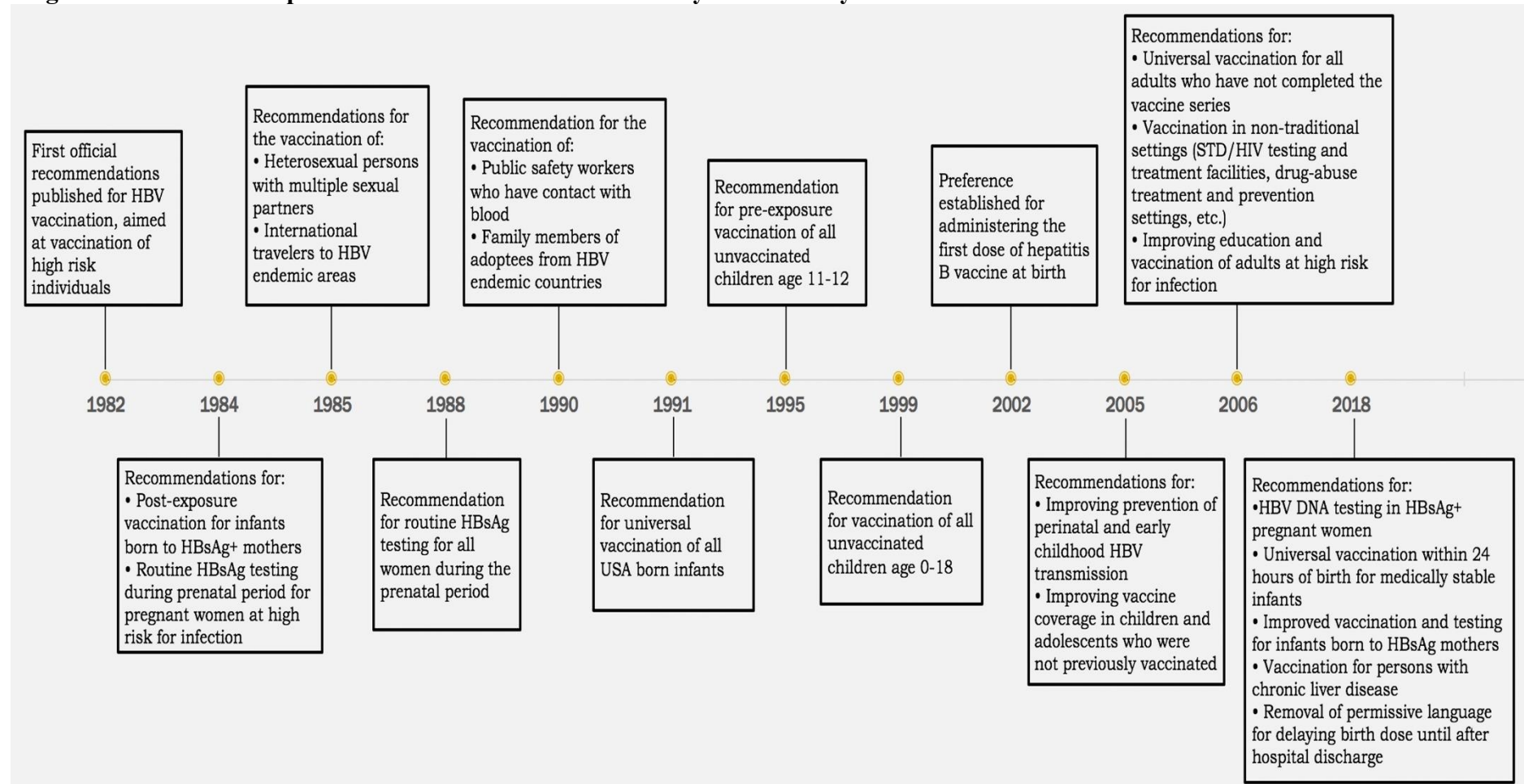
**eTable 7: Age specific prevalence of complete vaccination through participant self-reported vaccination history, by birth year from 1988-2007**

	Birth year										<i>P</i> -value
	88-89	90-91	92-93	94-95	96-97	98-99	00-01	02-03	04-05	06-07	
Age groups (years)											
<b>2-5</b>				<b>79.6</b> (55.9-92.3)	<b>84.9</b> (78.0-90.0)	<b>85.3</b> (81.0-88.8)	<b>84.9</b> (81.0-88.1)	<b>86.2</b> (81.9-89.7)	<b>89.4</b> (85.3-92.5)	<b>88.9</b> (84.6-92.0)	<b>0.031</b>
<b>6-10</b>		<b>58.3</b> (50.6-65.6)	<b>74.8</b> (69.6-79.3)	<b>85.8</b> (82.2-88.8)	<b>92.6</b> (89.1-95.1)	<b>91.6</b> (87.9-94.3)	<b>92.2</b> (89.3-94.3)	<b>89.2</b> (84.5-92.6)	<b>91.9</b> (88.9-94.1)	<b>91.4</b> (88.0-93.8)	<b>&lt;0.001</b>
<b>11-13</b>	<b>65.4</b> (59.1-71.2)	<b>70.6</b> (65.9-74.8)	<b>82.8</b> (77.6-87.0)	<b>91.5</b> (86.4-94.8)	<b>93.5</b> (90.8-95.4)	<b>92.8</b> (89.6-95.1)	<b>88.3</b> (82.9-92.2)	<b>84.9</b> (79.2-89.2)	<b>87.2</b> (83.3-90.3)		<b>&lt;0.001</b>
<b>14-18</b>	<b>80.0</b> (75.6-83.8)	<b>84.0</b> (80.3-87.1)	<b>86.9</b> (83.0-90.1)	<b>87.4</b> (84.3-90.0)	<b>88.7</b> (84.7-91.8)	<b>80.2</b> (75.5-84.2)	<b>85.3</b> (78.6-90.1)	<b>89.5</b> (78.8-95.2)			0.283

**eTable 8. Predictors of hepatitis B vaccination through reported vaccine history in U.S.-born children and adolescents (2-18 years) from survey years 1999-2016**

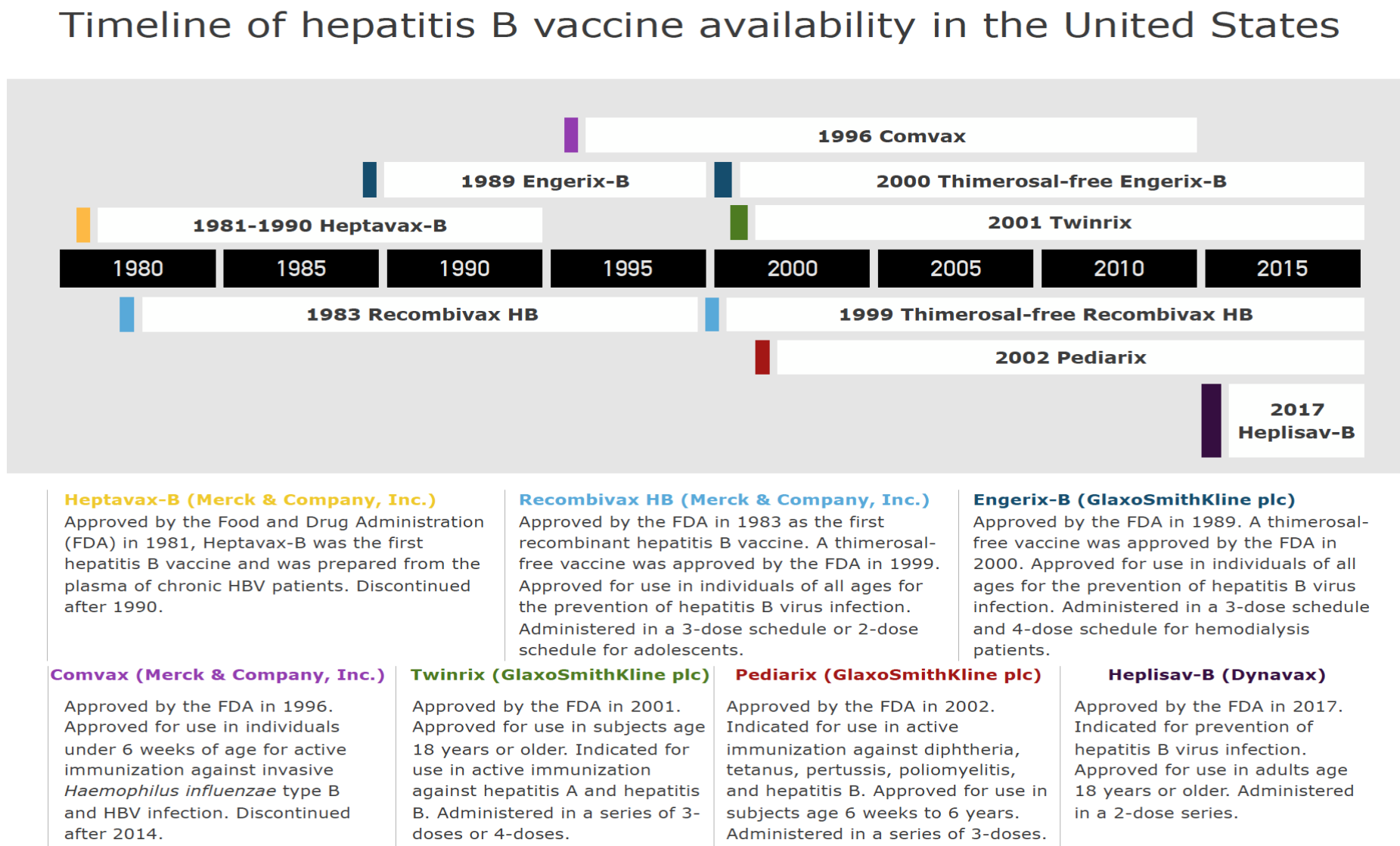
Variables	Univariable Analysis		Multivariable Analysis	
	Odds Ratio (95% CI)	P-value	Odds Ratio (95% CI)	P-value
<b>Age groups (years)</b>				
2-5	1 (Referent)		1 (Referent)	
6-10	<b>1.16</b> (1.00-1.34)	<b>0.043</b>	<b>1.18</b> (1.01-1.37)	<b>0.037</b>
11-13	<b>0.78</b> (0.66-0.92)	<b>0.004</b>	<b>0.77</b> (0.64-0.91)	<b>0.003</b>
14-18	<b>0.61</b> (0.52-0.71)	<b>&lt;0.001</b>	<b>0.63</b> (0.54-0.74)	<b>&lt;0.001</b>
<b>Race</b>				
Non-Hispanic White	1 (Referent)		1 (Referent)	
Non-Hispanic Black	0.88 (0.74-1.04)	0.136	0.90 (0.75-1.08)	0.272
Mexican American	<b>1.23</b> (1.01-1.50)	<b>0.035</b>	<b>1.31</b> (1.08-1.58)	<b>0.006</b>
Hispanic	<b>1.38</b> (1.07-1.79)	<b>0.014</b>	<b>1.38</b> (1.07-1.79)	<b>0.015</b>
Non-Hispanic Asian	<b>1.46</b> (1.00-2.11)	<b>0.048</b>	1.34 (0.92-1.95)	0.129
Other-Multiracial	1.19 (0.88-1.62)	0.257	1.18 (0.89-1.57)	0.241
<b>Insurance status</b>				
Uninsured	1 (Referent)		1 (Referent)	
Insured	<b>1.97</b> (1.65-2.36)	<b>&lt;0.001</b>	<b>1.94</b> (1.63-2.29)	<b>&lt;0.001</b>
<b>Family poverty income ratio (PIR)</b>				
<1	1 (Referent)		1 (Referent)	
≥1	<b>1.16</b> (1.03-1.32)	<b>0.017</b>	<b>1.22</b> (1.07-1.38)	<b>0.003</b>

**eFigure 1. Timeline of hepatitis B vaccine recommendations by the Advisory Committee on Immunization Practices<sup>1-12</sup>**



In 1991, the Advisory Committee on Immunization Practices (ACIP) recommended universal vaccination of infants for prevention of perinatal HBV transmission, as well as catch-up vaccinations for susceptible children and adult populations at high risk for infection. In 2005, ACIP further solidified this recommendation by specifying that all newborns who weigh >2,000 g (4.4 lbs) and are medically stable receive their first dose of hepatitis B vaccine before discharge.

eFigure 2. Timeline of hepatitis B vaccine availability in the United States<sup>13-21</sup>





**eAppendix. Literature review on anamnestic response**

Study	No. of patients	Birth cohort	Country	Loss of immunity (%)	Booster vaccine and dose	Age at booster dose (year)	Anamnestic response
Lin 2003 <sup>22</sup>	200	1987	Taiwan	71.1% at age 7, 37.4% at age 12	Recombinant hepatitis B vaccines, 5 µg of Ricombivax [Merck] or 20 µg o	7-12	60% after one year
Boxall 2004 <sup>23</sup>	116	1986	UK	60% after 9 years follow-up	A dose, HB VAX II, Aventis Pasteur	(Mean) 11.7-14.5	83.6%
Lu 2004 <sup>24</sup>	91	1988	Taiwan	48.7% after 15 years follow-up	A dose, 20 µg, recombinant DNA HB vaccine, Engerix-B	15	89%
Gabbuti 2007 <sup>25</sup>	20	1980 ( <i>vaccinated in 1992</i> )	Italy	8.8% after 11 years follow-up	NA	23	91.7%
Jafarzadeh 2006 <sup>26</sup>	94	NA	Iran	52.1% after 10 years follow-up	NA	10-11	95.8%
van der Sande 2007 <sup>27</sup>	297	1986-1990	Gambia	66.5% after 15 years follow-up	A dose, Euvax®	15	96.8%
McMahon 2009 <sup>28</sup>	493	1981	US (Alaska)	40% after 22 years follow-up	A dose, 10 mg, Recombivax HB (Merck)	22	81% at 60 days, 41% after one year
Van Damme 2010 <sup>29</sup>	40	1986-1991 ( <i>vaccinated in 2001</i> )	Belgium, Australia	79.5% in 2-dose group and 91.4% in the 3-dose group after 5 years follow-up	A dose, 10 µg, recombinant HBsAg, Engerix™-B	(Mean) 18.5	100%

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