

Vaccination Programs: Special Supplemental Nutrition Program for Women, Infants & Children (WIC) Settings

Summary Evidence Table - Updated Evidence (search period: 1980-2012)

Study	Location and Intervention	Study Population, Setting, Sample	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time																		
<p>Author (Year): Askar (2003)</p> <p>Study Period: 1997-1999</p> <p>Design Suitability (Design): Greatest (Group randomized controlled trial)</p> <p>Quality of Execution (# of limitations): Fair (3)</p> <p>Outcome Measure: DTaP, OPV/IPV, MMR, Hib B, Hep B (4:3:1:3:3)</p>	<p>Location: USA, Los Angeles County, CA</p> <p>WIC Programs Assessment/Off-site Referral + WIC database (Registry)</p> <p>Comparison: Assessment only</p>	<p>Assessment of child's vaccination status followed by referral to a health care provider for those lacking indicated vaccinations</p> <p>Setting: 20 of the largest Public Health Foundation Enterprises- WIC centers in LA County</p> <p>Study population:</p> <ul style="list-style-type: none"> Children continuously enrolled in participating WIC centers from 6 to 24 months of age Majority Hispanic <table border="1"> <thead> <tr> <th>Group</th> <th>N Pre</th> <th>N Post</th> </tr> </thead> <tbody> <tr> <td>C</td> <td>265</td> <td>266</td> </tr> <tr> <td>1</td> <td>255</td> <td>297</td> </tr> <tr> <td>2</td> <td>242</td> <td>324</td> </tr> <tr> <td>3</td> <td>248</td> <td>321</td> </tr> <tr> <td>Total</td> <td>1010</td> <td>1357</td> </tr> </tbody> </table>	Group	N Pre	N Post	C	265	266	1	255	297	2	242	324	3	248	321	Total	1010	1357	<p>Children's UTD status by 24 months of age</p> <p>Overall</p> <p>Effectiveness of assessment/referral in raising immunization coverage</p> <p>Group 1</p> <p>Group 2</p> <p>Group 3</p>	<p><u>Control</u> 193 (73%) out of 265</p> <p><u>Intervention</u> 587 (79%) out of 745</p>	<p><u>Control</u> 266 (88%) out of 304</p> <p><u>Intervention</u> 942 (90%) out of 1053</p>	<p>-4.0 pct pts 95% CI [-8, 0.1]</p> <p><u>Postintervention</u> Adj-OR .98 95% CI [.62-1.56]</p> <p>Adj-OR 1.02 95% CI [.54-1.94]</p> <p>Adj-OR .89 95% CI [.48-1.68]</p>	<p>Interv period was 2 years</p>
Group	N Pre	N Post																							
C	265	266																							
1	255	297																							
2	242	324																							
3	248	321																							
Total	1010	1357																							
<p>Author (Year): Birkhead (1995)</p> <p>Study Period: 1991</p> <p>Design Suitability (Design): Greatest (Group randomized trial)</p> <p>Quality of Execution: Fair</p> <p>Outcome Measure: MMR</p>	<p>Location: USA, New York City, New York</p> <p>WIC Programs</p> <p>1. Assessment of immunization status, education, referral to provider + voucher restriction</p> <p>2. Assessment and referral + escort to pediatric clinic</p> <p>Comparison: 3. Assessment/Referral</p>	<p>Setting: WIC sites</p> <p>Study Population:</p> <ul style="list-style-type: none"> clients aged 12-59 months median age 14 months urban: 56% Hispanic, 39% black, low socioeconomic status <p>N=836 children</p> <table border="1"> <thead> <tr> <th>Group</th> <th>N</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>178</td> </tr> <tr> <td>2</td> <td>377</td> </tr> <tr> <td>3</td> <td>281</td> </tr> </tbody> </table>	Group	N	1	178	2	377	3	281	<p>Group 1 vs 3</p> <p>Group 2 vs 3</p>			<p>4% change (p < 0.01)</p> <p>4% change (p < 0.01) after 6 months</p> <p>86% of children vaccinated at start of study</p>	<p>Interv period was 6 months</p>										
Group	N																								
1	178																								
2	377																								
3	281																								

Study	Location and Intervention	Study Population, Setting, Sample	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time																																								
<p>Author (Year): Golden (1997)</p> <p>Study Period: 1993-1995</p> <p>Greatest (Nonrandomized trial)</p> <p>Quality of Execution: Fair</p> <p>Outcome Measure: DTP/OPV/MMR (4:3:1 doses)</p>	<p>Location: USA, Los Angeles, California</p> <p>1. Assessment of immunization status, education, and referral to provider + on-site free vaccine 2. Assessment and referral <i>plus</i> voucher restriction 3. Assessment and referral <i>plus</i> on-site free vaccinations <i>plus</i> voucher restriction 4. Assessment and referral</p> <p>Comparison: 5. Usual care</p>	<p>Setting: WIC sites</p> <p>Study Population: -clients aged <16 months - 93% Hispanic, 6% black - low socioeconomic status - urban</p>	<p>DTP/OPV/MMR (4:3:1 doses, respectively) coverage at 16 months</p> <p>1-4 combined vs 5</p>			<p>9% change (p < 0.01)</p> <p>In general, no major differences between various intervention combinations</p>																																									
<p>Author (Year): Hoekstra (1998)</p> <p>Study Period: 1996–1997</p> <p>Design Suitability (Design): Greatest (Other w/ concurrent comparison)</p> <p>Quality of Execution (# of limitations): Fair (3)</p> <p>Outcome Measure: Age-appropriate vaccinations</p>	<p>Location: USA, Chicago, Illinois</p> <p>WIC Programs Assessment/Referral + Monthly Voucher Pickup</p> <p>Comparison: Assessment/Referral</p> <p><u>Immunization activities</u></p> <table border="1"> <thead> <tr> <th>Grp</th> <th>Sites</th> <th>Incent</th> <th>Monit</th> <th>AR</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>4</td> <td>Y</td> <td>Y</td> <td>Y</td> </tr> <tr> <td>B</td> <td>10</td> <td>Y</td> <td>N</td> <td>Y</td> </tr> <tr> <td>C</td> <td>3</td> <td>N</td> <td>Y</td> <td>Y</td> </tr> <tr> <td>D</td> <td>2</td> <td>N</td> <td>N</td> <td>Y</td> </tr> </tbody> </table>	Grp	Sites	Incent	Monit	AR	A	4	Y	Y	Y	B	10	Y	N	Y	C	3	N	Y	Y	D	2	N	N	Y	<p>Setting: 19 WIC sites serving 30% of the birth cohort were selected for retrospective assessment and comparison were based on different immunization activities at study sites</p> <p>Study population: Children: 24 months or younger N=16581 children</p> <table border="1"> <thead> <tr> <th>Group</th> <th>N</th> <th>Sites</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>4014</td> <td>4</td> </tr> <tr> <td>B</td> <td>9746</td> <td>10</td> </tr> <tr> <td>C</td> <td>1912</td> <td>3</td> </tr> <tr> <td>D</td> <td>909</td> <td>2</td> </tr> </tbody> </table>	Group	N	Sites	A	4014	4	B	9746	10	C	1912	3	D	909	2	<p>Age appropriate vaccination rates: childhood series</p> <p>Group A vs C</p>	<p><u>A</u> 2248 (56%) out of 4014</p> <p><u>C</u> 1090 (57%) out of 1912</p>	<p><u>A</u> 3573 (89%) out of 4014</p> <p><u>C</u> 1109 (58%) out of 1912</p>	<p>+32 pct pts 95% CI= [30,34]</p>	<p>Interv period was 15 months</p>
Grp	Sites	Incent	Monit	AR																																											
A	4	Y	Y	Y																																											
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Study	Location and Intervention	Study Population, Setting, Sample	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time									
<p>Author (Year): Hutchins (1999)</p> <p>Study Period: 1991-1993</p> <p>Design Suitability (Design): Greatest (Group randomized trial)</p> <p>Quality of Execution: Fair</p> <p>Outcome Measure: DTP/OPV/MMR (4:3:1 doses)</p>	<p>Location: USA, Chicago, Illinois</p> <p>1. Assessment of immunization status and education + voucher restriction + referral to on-site clinic, off-site clinic, or on-site nurse; free vaccinations available to all study participants</p> <p>Comparison: 2. usual standard of care for WIC and healthcare services</p>	<p>Setting: WIC sites</p> <p>Study Population:</p> <ul style="list-style-type: none"> clients aged <5 years 53%-98% black 1%-42% Hispanic urban low socioeconomic status <p>N= 27,596 children in study; 300 aged 13-35 months evaluated in each group)</p>	<p>DTP/OPV/MMR (4:3:1 doses, respectively) at 24 months</p> <p>Group 1 vs 2</p>	<p><u>Group 2</u> Baseline: 49%</p> <p>Year 2: 53%</p>	<p><u>Group 1</u> Baseline: 37%</p> <p>Year 2: 75%</p>	<p>+ 34 pct pts 95% CI= [33,35]</p>	<p>Interv period was 3.5 years</p>									
<p>Author (Year): Kendal (2002)</p> <p>Study Period: 1997-98</p> <p>Design Suitability (Design): Greatest (Other w/ concurrent comparison)</p> <p>Quality of Execution (# of limitations): Fair (4)</p>	<p>Location: USA, Detroit, Michigan</p> <p>WIC programs + Enhanced access in Health Care Settings (co-located WIC with the managed care organization for these clients)</p> <p>Comparison: WIC program in Health Department (WIC not co-located with managed care organization for these clients)</p>	<p>1997 birth cohort of African Americans in Detroit enrolled in both Medicaid and WIC N eligible : NR (est 5890) N eval: 4648 in all 5 study groups</p> <p>1227 in best comparison</p> <p>Differences in organization of care provided a "natural" comparison Comparison provided here is the most appropriate reported (Group 1 vs Group 3)</p> <table border="0"> <tr> <td></td> <td><u>N</u></td> <td><u>N assessment</u></td> </tr> <tr> <td>Inter</td> <td>603</td> <td>NR</td> </tr> <tr> <td>Comp</td> <td>624</td> <td>NR</td> </tr> </table>		<u>N</u>	<u>N assessment</u>	Inter	603	NR	Comp	624	NR	<p>Proportion Up-to-date at 1 year WIC recertification (Group 1 compared to Group 3)</p> <p>Odds ratio based on logistic regression analysis</p>	<p><u>Comparison</u> 46%</p>	<p><u>Intervention</u> 61%</p>	<p>+15 pct points 95%CI= [10,21]</p> <p>Adj OR= 1.27 95%CI= [0.91, 1.75]</p>	<p>Interv period was 12-14 months</p>
	<u>N</u>	<u>N assessment</u>														
Inter	603	NR														
Comp	624	NR														

Study	Location and Intervention	Study Population, Setting, Sample	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time								
<p>Author (Year): Shefer (2002)</p> <p>Study Period: 1995-1997</p> <p>Design Suitability (Design): Greatest (Other w/ concurrent comparison)</p> <p>Quality of Execution (# of limitations): Fair (4)</p> <p>Outcome Measure: Age appropriate vaccinations (DTP, polio, MMR, Hib B)</p>	<p>Location: USA, Milwaukee, Wisconsin</p> <p>Grp 2: Assessment and Referral + Client Reminder/Recall (Outreach) + Database</p> <p>Grp 3: Assessment and Referral +Client Reminder/Recall (Outreach) + Monthly Voucher Pick-up +Database</p> <p>Comparison: Grp 1: Assessment and Referral + Database</p>	<p>Seven of the 17 WIC sites in Milwaukee implemented a variety of interventions. Age appropriate vaccination were compared among these sites</p> <p>Study population: • children less than 24 months of age</p> <table border="1" data-bbox="699 584 1045 706"> <tr> <td>N sites</td> <td><u>Grp 3</u> 2</td> <td><u>Grp 2</u> 3</td> <td><u>Grp 1</u> 2</td> </tr> <tr> <td>N children</td> <td>204</td> <td>193</td> <td>199</td> </tr> </table> <p>N=596 included in analyses</p>	N sites	<u>Grp 3</u> 2	<u>Grp 2</u> 3	<u>Grp 1</u> 2	N children	204	193	199	<p>Age appropriate vaccination rate</p> <p>Grp 2 vs Control</p> <p>Grp 3 vs Control</p>	<p><u>Grp 1</u> 147 (61%) out of 199</p> <p><u>Grp 1</u> 147 (61%) out of 199</p>	<p><u>Grp 2</u> 131 (68%) out of 193</p> <p><u>Grp 3</u> 151 (74%) out of 204</p>	<p>+7.0 pct pts 95% CI [-2,16]</p> <p>+13 pct pts 95% CI [4,22]</p>	<p>Interv period was 2 years</p>
N sites	<u>Grp 3</u> 2	<u>Grp 2</u> 3	<u>Grp 1</u> 2												
N children	204	193	199												
<p>Author (Year): Waterman (1996)</p> <p>Study Period: 1992-1994</p> <p>Design Suitability (Design): Greatest (Nonrandomized trial)</p> <p>Quality of Execution: Fair</p> <p>Outcome Measure: DTP/OPV/MMR (4:3:1 doses)</p>	<p>Location: USA, San Diego County, California</p> <p>1. Free walk-in vaccination clinics + client reminders + provider education + multiple education and health promotion strategies + assessment, referral, and education of WIC clients</p> <p>Comparison 2. Usual care</p>	<p>Study Population: • clients aged 2-4 years • 87% Hispanic • low socioeconomic status</p>	<p>Group 1 vs 2</p>			<p>12% change (statistical significance not provided)</p>									

Studies with Additional Evidence

Study	Location and Intervention	Study Population, Setting, Sample	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time												
<p>Author (Year): Bardenheier (2004)</p> <p>Study Period: 1997-1998</p> <p>Design Suitability (Design): Least (Cross sectional)</p> <p>Quality of Execution (# of limitations): Fair (3)</p> <p>Outcome Measure: DTaP, IPV/OPV, Hib B, Hep B</p>	<p>Location: USA, northern Manhattan, Detroit, San Diego, and rural Colorado</p> <p>Children who participate in WIC programs</p> <p>Comparison: Children who were eligible but not on WIC</p>	<p>Survey for coverage rates and factors associated with underimmunization at 3m of age in 4 underserved areas.</p> <p>Setting: Community Health Network communities:</p> <p>Study population:</p> <ul style="list-style-type: none"> • two-stage cluster design of households • Children 12-35 months of age • majority Hispanic and African American <table border="0" style="width: 100%;"> <tr> <td style="border-bottom: 1px solid black;"><u>Site</u></td> <td style="border-bottom: 1px solid black;"><u>N</u></td> </tr> <tr> <td>Northern Manhattan</td> <td>847</td> </tr> <tr> <td>Detroit</td> <td>843</td> </tr> <tr> <td>San Diego</td> <td>771</td> </tr> <tr> <td>Rural Colorado</td> <td>1091</td> </tr> <tr> <td>Total</td> <td>3552</td> </tr> </table>	<u>Site</u>	<u>N</u>	Northern Manhattan	847	Detroit	843	San Diego	771	Rural Colorado	1091	Total	3552	<p>Participation in WIC during first year of life</p> <p>On WIC vs Eligible but not on WIC: % up-to-date</p> <p><u>Site</u></p> <p>Northern Manhattan</p> <p>Detroit</p> <p>San Diego</p> <p>Rural Colorado</p>	<p>69%</p> <p>61.3%</p> <p>65.5%</p> <p>67.2%</p>	<p>83.3%</p> <p>70.7%</p> <p>82.9%</p> <p>75.9%</p>	<p>+14.3 pct pts 95% CI [4, 25]</p> <p>+9.4 pct pts 95% CI [-2, 21]</p> <p>+17.4 pct pts 95% CI [7, 28]</p> <p>+8.7 pct pts 95% CI [-2, 20]</p>	<p>Interv period was 1 year</p>
<u>Site</u>	<u>N</u>																		
Northern Manhattan	847																		
Detroit	843																		
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Total	3552																		

Study	Location and Intervention	Study Population, Setting, Sample	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time												
<p>Author (Year): Brenner (2001)</p> <p>Study Period: 1995-1996</p> <p>Design Suitability (Design): Greatest (Prospective cohort)</p> <p>Quality of Execution (# of limitations): Fair (3)</p> <p>Outcome Measure: DTP, HibB and polio</p>	<p>Location: USA, District of Columbia</p> <p>WIC during pregnancy</p> <p>Comparison: No WIC during pregnancy</p>	<p>Setting: 3 hospitals in the District of Columbia</p> <p>Study Population: Mother/infant dyads</p> <ul style="list-style-type: none"> Mothers of singleton births recruited shortly after delivery Children 3, 5, 7 months Black (84%) <p>N= 324</p>	<p>Participation in WIC during pregnancy: % up-to-date at 3 and 7 months</p> <p>3 months</p> <p>7 months</p> <p>Baseline predictors at 3 months -participation in WIC during pregnancy</p>	<p><u>No</u> 67%</p> <p>33%</p>	<p><u>Yes</u> 81%</p> <p>46%</p>	<p>+13 pct pts 95% CI [2,24]</p> <p>Adj-OR 1.97 95% CI [1.13-3.42] significantly associated w/ being UTD at 3 months</p>	<p>Interv period was 1 year</p>												
<p>Author (Year): Cortese (2004)</p> <p>Study Period: 1997-1999</p> <p>Design Suitability (Design): Moderate (Retrospective cohort)</p> <p>Quality of Execution (# of limitations): Fair (3)</p> <p>Outcome Measure: DTP, MMR and Hib B</p>	<p>Location: USA, Chicago, Illinois</p> <p>WIC programs (active participants)</p> <p>Comparison: WIC inactive participants</p>	<p>To determine if children who left Chicago WIC sites before age 12 months were less likely to receive immunization on time</p> <p>Setting: Four CDPH-administered WIC clinics</p> <p>Study population:</p> <ul style="list-style-type: none"> Children: ≤ 2 yrs of age Predominately African American <table border="1" data-bbox="699 1201 1045 1409"> <thead> <tr> <th>Group</th> <th>n (%)</th> <th>n</th> </tr> </thead> <tbody> <tr> <td>WIC active</td> <td>528 (46)</td> <td>77</td> </tr> <tr> <td>WIC inactive</td> <td>614 (54)</td> <td>123</td> </tr> <tr> <td>Total</td> <td>1142</td> <td></td> </tr> </tbody> </table>	Group	n (%)	n	WIC active	528 (46)	77	WIC inactive	614 (54)	123	Total	1142		<p>UTD status by 25 months of age</p>	<p><u>Inactive</u> 64 (52%) out of 123</p>	<p><u>Active</u> 64 (83%) out of 77</p>	<p>+31 pct pts 95% CI [19,43]</p> <p>RR 1.6 95% CI [1.3, 2.0]</p>	<p>Interv period was 2 years</p>
Group	n (%)	n																	
WIC active	528 (46)	77																	
WIC inactive	614 (54)	123																	
Total	1142																		

Study	Location and Intervention	Study Population, Setting, Sample	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time										
<p>Author (Year): Dietz (2000)</p> <p>Study Period: 1994</p> <p>Design Suitability (Design): Least (Cross sectional)</p> <p>Quality of Execution (# of limitations): Fair (2)</p> <p>Outcome Measure: DTaP, polio, and MMR (4:3:1)</p>	<p>Location: USA, Georgia</p> <p>WIC Programs + Home Visits WIC program that restricted vouchers if child was undervaccinated</p> <p>Comparison: WIC program in which vouchers were not restricted if child was undervaccinated</p>	<p>Evaluate the factors associated with the increase in childhood vaccination coverage levels from 53% in 1988 to 89% in 1994 in Georgia’s public health clinics</p> <p>Setting: all 227 public health clinics in Georgia</p> <p>Study Population: Clinic coverage levels for children who were 21 to 23 months of age on the date of the assessment</p>	<p>Association Between Clinic-Specific Coverage Levels and Clinic Vaccination Practices and Policies</p> <p>WIC restricts vouchers if child is undervaccinated</p>			<p>OR 1.43 95% CI [1.12, 1.82]</p>	<p>Interv period was 1 year</p>										
<p>Author (Year): Ghosh (2007)</p> <p>Study Period: 2002-2004</p> <p>Design Suitability (Design): Least (Before-After)</p> <p>Quality of Execution (# of limitations): Fair (3)</p> <p>Outcome Measure: UTD</p>	<p>Location: USA, Denver, Colorado</p> <p>WIC Programs Assessment and Referral (A/R) off-site or collocated</p>	<p>Setting: 4 WIC clinics: Tri-County Health Department</p> <p>Study Population:</p> <ul style="list-style-type: none"> • Children 2 months to 5 years of age • Majority Hispanic and non-Hispanic white <p>N=1232</p> <table border="1" data-bbox="699 1079 1045 1248"> <thead> <tr> <th>Clinic</th> <th>N</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>271</td> </tr> <tr> <td>B</td> <td>387</td> </tr> <tr> <td>C</td> <td>366</td> </tr> <tr> <td>D</td> <td>547</td> </tr> </tbody> </table>	Clinic	N	A	271	B	387	C	366	D	547	<p>UTD vaccination rates</p> <p>Clinic A Clinic B Clinic C Clinic D</p>	<p>68% 74% 64% 68%</p>	<p>NR 84% 79% 80%</p>	<p>+ 10 pct p ts +15 pct pts +12 pct pts</p>	<p>Interv period was 2 years</p>
Clinic	N																
A	271																
B	387																
C	366																
D	547																

Study	Location and Intervention	Study Population, Setting, Sample	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time						
<p>Author (Year): Hoekstra (1999)</p> <p>Study Period: 1996</p> <p>Design Suitability (Design): Greatest (Individual randomized controlled trial)</p> <p>Quality of Execution (# of limitations): Good (1)</p> <p>Outcome Measure: Age-appropriate vaccinations</p>	<p>Location: USA, Chicago, Illinois</p> <p>WIC Programs Client Reminder/Recall (CRR) + Monthly Voucher Pickup (MVP)</p> <p>Comparison: Monthly Voucher Pickup</p>	<p>Evaluate whether CRR could add to the impact of MVP</p> <p>Setting: one selected WIC site</p> <p>Study Population:</p> <ul style="list-style-type: none"> Children < 12 months Hispanic (95%) <p>N=565 randomly assigned</p> <table border="0"> <tr> <td><u>Group</u></td> <td><u>N</u></td> </tr> <tr> <td>MVP + CRR</td> <td>324</td> </tr> <tr> <td>MVP</td> <td>241</td> </tr> </table> <p>N=560 (99%) at analyses</p>	<u>Group</u>	<u>N</u>	MVP + CRR	324	MVP	241	<p>Age-appropriate vaccination rate by 12 months of age</p> <p>MVP+CRR vs MVP</p>	<p><u>MVP+CRR</u> 243(75%) out of 324</p> <p><u>MVP</u> 186(77%) out of 241</p>	<p><u>MVP+CRR</u> 259(80%) out of 324</p> <p><u>MVP</u> 190(79%) out of 241</p>	<p>+3.0 pct pts 95% CI [-4,10]</p>	<p>Interv period was 6 months</p>
<u>Group</u>	<u>N</u>												
MVP + CRR	324												
MVP	241												
<p>Author (Year): Shefer (2001)</p> <p>Study Period: 1999</p> <p>Design Suitability (Design): Least (Cross sectional)</p> <p>Quality of Execution (# of limitations): Fair (2)</p> <p>Outcome Measure: 4:3:1:3</p>	<p>Location: USA, nationwide</p> <p>States in which a vaccination intervention took place at every visit in >50% of the WIC population in that state</p> <p>Comparison: States in which <50% of the WIC population received the vaccination intervention twice a year</p>	<p>Study Population: Children aged 24 to 59 months of age -Majority White or Asian</p> <table border="0"> <tr> <td></td> <td><u>N states</u></td> </tr> <tr> <td>Intervention</td> <td>12</td> </tr> <tr> <td>Comparison</td> <td>13</td> </tr> </table>		<u>N states</u>	Intervention	12	Comparison	13	<p>UTD coverage rates at 24 months</p>	<p><u>Comparison</u> 70%</p>	<p><u>Intervention</u> 77%</p>	<p>+7 pct pt</p> <p>OR: 1.4 95% CI [1.2, 1.6]</p>	
	<u>N states</u>												
Intervention	12												
Comparison	13												

Study	Location and Intervention	Study Population, Setting, Sample	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time
<p>Author (Year): Suarez (1997)</p> <p>Study Period: 1994</p> <p>Design Suitability (Design): Least (Cross-sectional)</p> <p>Quality of Execution (# of limitations): Fair (3)</p> <p>Outcome Measure: DTaP, OPV, MMR, Hib B, Hep B (4:3:1:3:3)</p>	<p>Location: USA, Texas</p> <p>WIC Programs Enrolled participants</p> <p>Comparison: Nonenrolled</p>	<p>Survey used to examine how immunization status varied with enrollment in the WIC, AFDC, food stamp, Medicaid programs and w/private health insurance coverage Setting: 30 Texas counties</p> <p>Study Population:</p> <ul style="list-style-type: none"> • Children 3 through 24 months of age • Anglo, Hispanic and African American <p>N= 4431</p>	<p>Children’s UTD status: 3-24 months of age Odds ratio of UTD Immunizations: (WIC) Enrolled vs Nonenrolled</p>			<p>OR 1.81 95% CI= [1.54, 2.13]</p>	<p>Interv period was 6 months</p>