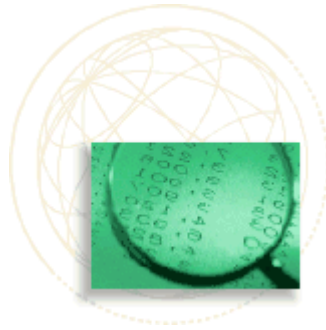


# Technical Notes

for

## **SEALS-ADMIN:**

Software for collectively analyzing data from  
individual sealant programs' SEALS files



*An Evaluation and Benchmarking Tool for State-Level Administrators  
over Community Sealant Programs*

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## Documentation of the calculation of the summary/performance measures on the State-Level Report

KEY to the abbreviations and terms used below	
Abbreviation/term	Meaning
Qx	the question numbered “x”
EL	SEALS Event-Level Data Collection Form
CL	SEALS Child-Level Data Collection Form
“eligible children”	All children with any data entered (even if all “99s” or other “missing data” entries) who meet the race/ethnicity and special needs status criteria established in the “Specify the data for analysis” window, and who attended events meeting the specified “target population” criterion
“eligible events”	All events meeting the “target population” criterion established in the “Specify the data for analysis” window for which any data was entered, even if all entries were 99’s or other “missing data” entries

NOTE: For some more complicated formulas, square brackets “[...]” are used to signal descriptive terms that go together. For example, “[the value of x as a percentage of y] multiplied by z” signifies that x is divided by y and the result multiplied by z. In contrast, “the value of x as a percentage of [y multiplied by z]” signifies that x is divided by the product of y and z.

### General Demographics

**Number of programs** = # of programs for which any event-level data was entered

**Number of events held** = # of eligible events for which event-level data was entered

**NOTE:** If event-level data, but not child-level data is entered for any program, summary/performance measures will be inaccurate.

**% male** = # of eligible children for whom Q5 on CL = 0, as a percentage # of eligible children for whom Q5 on CL ≠ 99

**% reporting sex** = # of eligible children for whom Q5 on CL ≠ 99, as a percentage of # of eligible children

**% Medicaid patients** = # of eligible children for whom Q11 on CL = 0, as a percentage of # of eligible children for whom Q11 on CL ≠ 99

**% SCHIP patients** = # of eligible children for whom Q11 on CL = 1, as a percentage of # of eligible children for whom Q11 on CL ≠ 99

**% on neither** = # of eligible children for whom Q11 on CL = 2, as a percentage of # of eligible children for whom Q11 on CL ≠ 99

**% reporting Medicaid/SCHIP status** = # of eligible children for whom Q11 on CL ≠ 99, as a percentage of # of eligible children

**% White** = # of eligible children for whom White was checked on Q9 of CL, as a percentage of # of eligible children for whom at least one race/ethnicity category of Q9 on CL was checked

**% Black/African American** = # of eligible children for whom Black/African American was checked on Q9 of CL, as a percentage of # of eligible children for whom at least one race/ethnicity category of Q9 on CL was checked

**% American Indian/Alaska Native** = # of eligible children for whom American Indian/Alaska Native was checked on Q9 of CL, as a percentage of # of eligible children for whom at least one race/ethnicity category of Q9 on CL was checked

**% Hawaiian/Pacific Islander** = # of eligible children for whom Native Hawaiian/Pacific Islander was checked on Q9 of CL, as a percentage of # of eligible children for whom at least one race/ethnicity category of Q9 on CL was checked

**% Asian** = # of eligible children for whom Asian was checked on Q9 of CL, as a percentage of # of eligible children for whom at least one race/ethnicity category of Q9 on CL was checked

**% Hispanic** = # of eligible children for whom Hispanic was checked on Q9 of CL, as a percentage of # of eligible children for whom at least one race/ethnicity category of Q9 on CL was checked

**% Other** = # of eligible children for whom Other was checked on Q9 of CL, as a percentage of # of eligible children for whom at least one race/ethnicity category of Q9 on CL was checked

**% reporting race** = # of eligible children for whom at least one race/ethnicity category of Q9 on CL was checked, as a percentage of # of eligible children

<p><b>NOTE:</b> Since more than one racial/ethnic group may be checked per child, the sum of the percentages in all racial/ethnic groups may exceed 100%.</p>
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## Summary of effectiveness in targeting high-risk populations that lack access to care

### 1. **Percentage of participants with untreated decay (baseline)**

**value** = # of eligible children for whom Q12 on CL = 1, as a percentage of # of eligible children for whom Q12 on CL ≠ 99

**% response** = # of eligible children for whom Q12 on CL ≠ 99, as a percentage of # of eligible children

### 2. **Percentage of participants with urgent dental needs (baseline)**

**value** = # of eligible children for whom Q15 on CL = 2, as a percentage of # of eligible children for whom Q15 on CL ≠ 99

**% response** = # of eligible children for whom Q15 on CL  $\neq$  99, as a percentage of # of eligible children

**3. Percentage of participants with early dental needs (baseline)**

**value** = # of eligible children for whom Q15 on CL = 1, as a percentage of eligible children for whom Q15 on CL  $\neq$  99

**% response** = # of eligible children for whom Q15 on CL  $\neq$  99, as a percentage of # of eligible children

**4. Percentage of participants with treated or untreated decay (baseline)**

**value** = # of eligible children for whom Q12 and/or Q13 on CL = 1, as a percentage of # of eligible children, excluding those for whom either Q12 and Q13 both = 99, or else one of Q12 and Q13 = 0 while the other = 99

**% response** = # of eligible children, excluding those for whom either Q12 and Q13 both = 99, or else one = 0 while the other = 99, as a percentage of # of eligible children

**5. Percentage of participants with sealants present (baseline)**

**value** = # of eligible children for whom Q14 on CL = 1, as a percentage of # of eligible children for whom Q14 on CL  $\neq$  99

**% response** = # of eligible children for whom Q14 on CL  $\neq$  99, as a percentage of # of eligible children

**6. Percentage of children in events targeting schools with <20% of children on free or reduced lunch program** = # of eligible children at events for which Q14 on EL = 0, as a percentage of # of eligible children

**Number of events targeting schools with <20% of children on free or reduced lunch program** = # of eligible events for which Q14 on EL = 0

**7. Percentage of children in events targeting schools with  $\geq$ 20% & <40% of children in free or reduced lunch program** = # of eligible children at events for which Q14 on EL = 1, as a percentage of # of eligible children

**Number of events targeting schools with  $\geq$ 20% & <40% of children in free or reduced lunch program** = # of eligible events for which Q14 on EL = 1

**8. Percentage of children in events targeting schools with  $\geq$ 40% & <50% of children in free or reduced lunch program** = # of eligible children at events for which Q14 on EL = 2, as a percentage of # of eligible children

**Number of events targeting schools with  $\geq$ 40% & <50% of children in free or reduced lunch program** = # of eligible events for which Q14 on EL = 2

**9. Percentage of children in events targeting schools with  $\geq$ 50% of children on free or reduced lunch program** = # of eligible children at events for which Q14 on EL = 3, as a percentage of # of eligible children

**Number of events targeting schools with  $\geq$ 50% of children on free or reduced lunch program** = # of eligible events for which Q14 on EL = 3

Summary of effectiveness of targeting high-risk teeth

**1. Percentage of children in events targeting 1st molars** = # of eligible children at events for which "First molars" is checked on Q16 of EL, as a percentage of # of eligible children

**Number of events targeting 1st molars** = # of eligible events for which "First molars" is checked on Q16 of EL

**2. Percentage of children in events targeting 1st molars of 2nd graders** = # of eligible children at events for which both "2<sup>nd</sup> grade" is checked on Q15 of EL and "First molars" is checked on Q16 of EL, as a percentage of # of eligible children

**Number of events targeting 1st molars of 2nd graders** = # of eligible events for which both “2<sup>nd</sup> grade” is checked on Q15 of EL and “First molars” is checked on Q16 of EL

3. **Percentage of children in events targeting 2nd molars** = # of eligible children at events for which “Second molars” is checked on Q16 of EL, as a percentage of # of eligible children

**Number of events targeting 2nd molars** = # of eligible events for which “Second molars” is checked on Q16 of EL

4. **Percentage of children in events targeting 2nd molars of 6th graders** = # of eligible children at events for which both “6<sup>th</sup> grade” is checked on Q15 of EL and “Second molars” is checked on Q16 of EL, as a percentage of # of eligible children

**Number of events targeting 2nd molars of 6th graders** = # of eligible events for which both “6<sup>th</sup> grade” is checked on Q15 of EL and “Second molars” is checked on Q16 of EL

5. **1.5-year attack rate in 1st molar surfaces (baseline)** = [sum for all eligible children of Q17a on CL, where both Q17a on CL  $\neq$  99 and Q8 on CL = 7 or 8] divided by [8 multiplied by the # of eligible children for whom Q8 on CL = 7 or 8 and Q17a on CL  $\neq$  99]

**based on # children** = # of eligible children for whom Q17a on CL  $\neq$  99 and Q8 on CL = 7 or 8

6. **Among children age 12+, percentage of decayed or filled 2nd molar surfaces (baseline)** = [sum for all children at eligible events of Q17b on CL, where both Q17b on CL  $\neq$  99 and Q8 on CL  $\geq$  12] as a percentage of [the # of children at eligible events for whom Q17b on CL  $\neq$  99 and Q8 on CL  $\geq$  12, multiplied by 8]

**based on # children** = # of children at eligible events for whom Q17b on CL  $\neq$  99 and Q8 on CL  $\geq$  12

### Summary of services delivered

1. **Number of children screened** = # of eligible children

2. **Number of screened children with special health care needs** = # of eligible children for whom Q10 on CL = 1

3. **Number of children sealed** = # of eligible children for whom at least one of Q18a, Q18b, or Q18c on CL is  $> 0$  and  $\neq 99$

4. **Percentage of screened children with at least one sealant after event** = # of eligible children for whom Q14 on CL = 1 and/or for whom at least one of Q18a, Q18b, or Q18c on CL is  $> 0$  and  $\neq 99$ , as a percentage of all eligible children

5. **Percentage of screened children subsequently sealed** = # of eligible children for whom at least one of Q18a, Q18b, or Q18c on CL is  $> 0$  and  $\neq 99$ , as a percentage of those eligible children for whom at least one of Q18a, Q18b, and Q18c is  $> 0$  and  $\neq 99$  OR for whom Q18a, Q18b, and Q18c all = 0

**based on % response** = # of eligible children for whom at least one of Q18a, Q18b, and Q18c is  $> 0$  and  $\neq 99$  OR for whom Q18a, Q18b, and Q18c all = 0, as a percentage of all eligible children

6. **Number of 1<sup>st</sup> molar surfaces sealed** = sum of Q18a  $\neq 99$  on CL for all eligible children

**Number of 2<sup>nd</sup> molar surfaces sealed** = sum of Q18b  $\neq 99$  on CL for all eligible children

**Number of other tooth surfaces sealed** = sum of Q18c  $\neq 99$  on CL for all eligible children

7. **Number of children receiving fluoride varnish** = # of eligible children for whom Q19 on CL =

8. **Number of children receiving other fluoride treatments** = # of eligible children for whom Q19 on CL = 2
9. **Number of children referred for dental care** = # of eligible children for whom Q16 on CL = 1
10. **Number of children receiving oral health education** = sum of Q8a on EL for all eligible events

**NOTE:** Since oral health education data is collected at the event level, this measure is only meaningful for the state as a whole or subsets of whole events.

11. **Average hours of oral health education received per student instructed** = sum of Q8b on EL for all eligible events, divided by the sum of Q8a for all eligible events

**NOTE:** Since oral health education data is collected at the event level, this measure is only meaningful for the state as a whole or subsets of whole events.

### Summary of quality of services delivered

1. **Number of referrals that resulted in a dental visit** = # of eligible children (at all eligible events for which Q9c on EL  $\neq$  12/31/1998) for whom both Q16 and Q21 on CL = 1
2. **Percentage of "early care" referrals that resulted in a dental visit** = # of eligible children for whom Q15, Q16, and Q21 on CL all = 1, as a percentage of eligible children at those same events for whom both Q15 and Q16 on CL = 1
3. **Percentage of "urgent care" referrals that resulted in a dental visit** = # of eligible children for whom Q15 on CL = 2 and both Q16 and Q21 on CL = 1, as a percentage of eligible children at those same events for whom Q15 on CL = 2 and Q16 on CL = 1
4. **Number of children evaluated for sealant retention 8 to 14 months from delivery** = # of eligible children for whom Q20 on CL  $\neq$  99, at eligible events for which the number of days between Q9b and Q9c on EL is greater than 246 but less than 428 (and neither Q9b nor Q9c on EL = 12/31/1998)
5. **Number of children evaluated for sealant retention <8 months from delivery** = # of eligible children for whom Q20 on CL  $\neq$  99, at eligible events for which the number of days between Q9b and Q9c on EL is less than 247 (and neither Q9b nor Q9c on EL = 12/31/1998)

**Number of children evaluated for sealant retention >14 months from delivery** = # of eligible children for whom Q20 on CL  $\neq$  99, at eligible events for which the number of days between Q9b and Q9c on EL is greater than 427 (and neither Q9b nor Q9c on EL = 12/31/1998)

6. **Sealant retention rate** = Value entered by user if "Override calculated retention rate" was checked in the "Select the data for analysis" window  
 Otherwise = Sum of Q20 on CL  $\neq$  99 for eligible children (at eligible events for which Q9c on EL  $\neq$  12/31/1998), divided by the sum of Q18a, Q18b, and Q18c on CL  $\neq$  99 for these same children  
**based on # children** = 0 if "Override calculated retention rate" was checked in the "Select the data for analysis" window  
 Otherwise = # of eligible children (at eligible events for which Q9c on EL  $\neq$  12/31/1998) for whom Q20 on CL  $\neq$  99

7. **Cavities averted** = sum of estimated 1<sup>st</sup> molar cavities averted and 2<sup>nd</sup> molar cavities averted for 9 years after the sealant date

**NOTE:** The following methodology most likely calculates an upper bound for averted decay. See the accompanying averted decay calculation software, also from CDC, for a likely lower bound of averted decay.

**Calculation of 1<sup>st</sup> molar cavities averted (9-year horizon) is based on the following intermediate measures:**

**# of sound 1<sup>st</sup> molar surfaces at baseline** = Sum of Q18a on CL  $\neq$  99 for all eligible children

**# of additional decayed or filled 1<sup>st</sup> molar surfaces expected without sealants 1.5 years after sealant date** = # of sound 1<sup>st</sup> molar surfaces at baseline multiplied by the 1.5-year attack rate in 1<sup>st</sup> molar surfaces at baseline (See #5 under “Summary of effectiveness of targeting high-risk teeth”)

**# of sound 1<sup>st</sup> molar surfaces expected without sealants 1.5 years after sealant date** = # of sound 1<sup>st</sup> molar surfaces at baseline less the # of decayed or filled 1<sup>st</sup> molar surfaces expected 1.5 years after sealant date

**# of cavities averted in 1.5 years after sealant date** = # of additional decayed or filled 1<sup>st</sup> molar surfaces expected without sealants 1.5 years after sealant date multiplied by the program’s sealant retention rate (See #6 under “Summary of quality of services delivered”)

**NOTE:** These calculations assume that the sealant retention rate calculated by the SEALS software approximates well the retention rate for the first 1.5 years. If not, the user can override the calculated retention rate with a better estimate.

**# of additional decayed or filled 1<sup>st</sup> molar surfaces expected without sealants 3 years after sealant date** = # of sound 1<sup>st</sup> molar surfaces 1.5 years after sealant date multiplied by the 1.5-year attack rate in 1<sup>st</sup> molar surfaces (at baseline)

**# of sound 1<sup>st</sup> molar surfaces expected without sealants 3 years after sealant date** = # of sound 1<sup>st</sup> molar surfaces 1.5 years after sealant date less the # of decayed or filled 1<sup>st</sup> molar surfaces expected 3 years after sealant date

**# of additional cavities averted 3 years after sealant date** = # of additional decayed or filled 1<sup>st</sup> molar surfaces expected without sealants 3 years after sealant date multiplied by the program’s sealant retention rate less 0.045

**NOTE:** We assume that the sealants are lost a rate of 3% after the first year<sup>\*\*</sup>; thus, the sealant retention rate 3 years after sealant date is the initial retention rate less 4.5% (=3% for each of the 1.5 years after the initial retention rate period).

**# of additional decayed or filled 1<sup>st</sup> molar surfaces expected without sealants 4.5 years after sealant date** = # of sound 1<sup>st</sup> molar surfaces 3 years after sealant date multiplied by the 1.5-year attack rate in 1<sup>st</sup> molar surfaces (at baseline)

**# of sound 1<sup>st</sup> molar surfaces expected without sealants 4.5 years after sealant date** = # of sound 1<sup>st</sup> molar surfaces 3 years after sealant date less the # of decayed or filled 1<sup>st</sup> molar surfaces expected 4.5 years after sealant date

**# of additional cavities averted 4.5 years after sealant date** = # of additional decayed or filled 1<sup>st</sup> molar surfaces expected without sealants 4.5 years after sealant date multiplied by the program’s sealant retention rate less 0.09

**NOTE:** We assume that the sealants are lost a rate of 3% after the first year<sup>\*\*</sup>; thus, the sealant retention rate 4.5 years after sealant date is the initial retention rate less 9% (=3% for each of the 3 years after the initial retention rate period).

**# of additional decayed or filled 1<sup>st</sup> molar surfaces expected without sealants 6 years after sealant date** = # of sound 1<sup>st</sup> molar surfaces 4.5 years after sealant date multiplied by the 1.5-year attack rate in 1<sup>st</sup> molar surfaces (at baseline)

**# of sound 1<sup>st</sup> molar surfaces expected without sealants 6 years after sealant date** = # of sound 1<sup>st</sup> molar surfaces 4.5 years after sealant date less the # of decayed or filled 1<sup>st</sup> molar surfaces expected 6 years after sealant date

**# of additional cavities averted 6 years after sealant date** = # of additional decayed or filled 1<sup>st</sup> molar surfaces expected without sealants 6 years after sealant date multiplied by the program's sealant retention rate less 0.135

**NOTE:** We assume that the sealants are lost a rate of 3% after the first year<sup>\*\*</sup>; thus, the sealant retention rate 6 years after sealant date is the initial retention rate less 13.5% (=3% for each of the 4.5 years after the initial retention rate period).

**# of additional decayed or filled 1<sup>st</sup> molar surfaces expected without sealants 7.5 years after sealant date** = # of sound 1<sup>st</sup> molar surfaces 6 years after sealant date multiplied by the 1.5-year attack rate in 1<sup>st</sup> molar surfaces (at baseline)

**# of sound 1<sup>st</sup> molar surfaces expected without sealants 7.5 years after sealant date** = # of sound 1<sup>st</sup> molar surfaces 6 years after sealant date less the # of decayed or filled 1<sup>st</sup> molar surfaces expected 7.5 years after sealant date

**# of additional cavities averted 7.5 years after sealant date** = # of additional decayed or filled 1<sup>st</sup> molar surfaces expected without sealants 7.5 years after sealant date multiplied by the program's sealant retention rate less 0.18

**NOTE:** We assume that the sealants are lost a rate of 3% after the first year<sup>\*\*</sup>; thus, the sealant retention rate 7.5 after sealant date is the initial retention rate less 18% (=3% for each of the 6 years after the initial retention rate period).

**# of additional decayed or filled 1<sup>st</sup> molar surfaces expected without sealants 9 years after sealant date** = # of sound 1<sup>st</sup> molar surfaces 7.5 years after sealant date multiplied by the 1.5-year attack rate in 1<sup>st</sup> molar surfaces (at baseline)

**# of sound 1<sup>st</sup> molar surfaces expected without sealants 9 years after sealant date** = # of sound 1<sup>st</sup> molar surfaces 7.5 years after sealant date less the # of decayed or filled 1<sup>st</sup> molar surfaces expected 9 years after sealant date

**# of additional cavities averted 9 years after sealant date** = # of additional decayed or filled 1<sup>st</sup> molar surfaces expected without sealants 9 years after sealant date multiplied by the program's sealant retention rate less 0.225

**NOTE:** We assume that the sealants are lost a rate of 3% after the first year<sup>\*\*</sup>; thus, the sealant retention rate 9 years after sealant date is the initial retention rate less 22.5% (=3% for each of the 7.5 years after the initial retention rate period).

**1<sup>st</sup> molar cavities averted (9-year horizon)** = the sum of the # of 1<sup>st</sup> molar cavities averted 1.5 years after sealant date and the # of additional cavities averted 3, 4.5, 6, 7.5, and 9 years after sealant date

**2<sup>nd</sup> molar cavities averted (9-year horizon)** = [the # of 1<sup>st</sup> molar cavities averted, as a percentage of the number of 1<sup>st</sup> molar surfaces sealed] multiplied by the number of 2<sup>nd</sup> molar surfaces sealed in eligible children

**NOTE:** If the calculated 1.5-year attack rate in 1<sup>st</sup> molar surfaces at baseline = 0 or if the calculated retention rate = 0, cavities averted by program will be reported as 0. An estimated retention rate may be entered in the "Choose type of report" window.



## Summary of efficiency of input usage

### 1. Total cost

**Total outlays** = Sum of Q21, Q22, Q23, Q24, Q25 and Q26 on EL for all eligible events

**Direct state funds\*** = Sum of amounts reported as "State grants" by programs holding eligible events

**State \$ + Medicaid\*** = Sum of the amounts reported as "State grants" and "Medicaid reimbursement" by programs holding eligible events

\*NOTE: State grant and Medicaid reimbursement amounts are collected at the program level; therefore, these measures are only accurate for the state as a whole or subsets of whole programs.

### 2. Cost per child screened

**Total outlays** = Sum of Q21, Q22, Q23, Q24, Q25 and Q26 on EL for all eligible events, divided by the # of eligible children

**Direct state funds\*** = Sum of amounts reported as "State grants" by programs holding eligible events, divided by the # of eligible children

**State \$ + Medicaid\*** = Sum of amounts reported as "State grants" and "Medicaid reimbursement" by programs holding eligible events, divided by the # of eligible children

\*NOTE: State grant and Medicaid reimbursement amounts are collected at the program level; therefore, these measures are only accurate for the state as a whole or subsets of whole programs.

### 3. Cost per child sealed

**Total outlays** = Sum of Q21, Q22, Q23, Q24, Q25 and Q26 on EL for all eligible events, divided by the # of eligible children for whom at least one of Q18a, Q18b, or Q18c on CL > 0 and  $\neq$  99

**Direct state funds\*** = Sum of amounts reported as "State grants" by programs holding eligible events, divided by the # of eligible children for whom at least one of Q18a, Q18b, or Q18c on CL > 0 and  $\neq$  99

**State \$ + Medicaid\*** = Sum of amounts reported as "State grants" and "Medicaid reimbursement" by programs holding eligible events, divided by the # of eligible children for whom at least one of Q18a, Q18b, or Q18c on CL > 0 and  $\neq$  99

\*NOTE: State grant and Medicaid reimbursement amounts are collected at the program level; therefore, these measures are only accurate for the state as a whole or subsets of whole programs.

### 4. Cost per surface sealed

**Total outlays** = Sum of Q21, Q22, Q23, Q24, Q25 and Q26 on EL for all eligible events, divided by the sum of Q18a, Q18b, and Q18c on CL  $\neq$  99 for all eligible children

**Direct state funds\*** = Amount reported as "State grants" by programs holding eligible events, divided by the sum of Q18a, Q18b, and Q18c on CL  $\neq$  99 for all eligible children

**State \$ + Medicaid\*** = Sum of amounts reported as "State grants" and "Medicaid reimbursement" by programs holding eligible events, divided by the sum of Q18a, Q18b, and Q18c on CL  $\neq$  99 for all eligible children

\*NOTE: State grant and Medicaid reimbursement amounts are collected at the program level; therefore, these measures are only accurate for the state as a whole or subsets of whole programs.

**5. Cost per cavity averted**

**Total outlays** = Sum of Q21, Q22, Q23, Q24, Q25 and Q26 on EL for all eligible events, divided by cavities averted (See #7 under "Summary of quality of services delivered")

**Direct state funds\*** = Amount reported as "State grants" by programs holding eligible events, divided by cavities averted (See #7 under "Summary of quality of services delivered")

**State \$ + Medicaid\*** = Sum of amounts reported as "State grants" and "Medicaid reimbursement" by programs holding eligible events, divided by cavities averted (See #7 under "Summary of quality of services delivered")

\*NOTE: State grant and Medicaid reimbursement amounts are collected at the program level; therefore, these measures are only accurate for the state as a whole or subsets of whole programs.

**6. Number of children screened per chair hour** = # of eligible children, divided by [the product of Q5a and Q7a on EL summed over eligible events]

**NOTE:** Since chair hour data is collected at the event level, this measure is only meaningful for the state as a whole or subsets of whole events.

**7. Number of children sealed per chair hour** = # of eligible children for whom at least one of Q18a, Q18b, or Q18c on CL > 0 and ≠ 99, divided by [the product of Q5b and Q7b on EL summed over eligible events]

**NOTE:** Since chair hour data is collected at the event level, this measure is only meaningful for the state as a whole or subsets of whole events.

**8. Number of children checked for sealant retention per chair hour** = # of eligible children (at eligible events for which Q9c on EL ≠ 12/31/1998) for whom Q20 on CL ≠ 99, divided by [the product of Q5c and Q7c on EL summed over eligible events]

**NOTE:** Since chair hour data is collected at the event level, this measure is only meaningful for the state as a whole or subsets of whole events.

**9. Number of labor hours per chair hour during screening** = Sum of Q11a and Q11b on EL for eligible events, divided by [the product of Q5a and Q7a on EL summed over eligible events]

**NOTE:** Since labor hour data and chair hour data are collected at the event level, this measure is only meaningful for the state as a whole or subsets of whole events.

**10. Number of labor hours per chair hour during sealing** = Sum of Q12a and Q12b on EL for eligible events, divided by [the product of Q5b and Q7b on EL summed over eligible events]

**NOTE:** Since labor hour data and chair hour data are collected at the event level, this measure is only meaningful for the state as a whole or subsets of whole events.

**11. Number of labor hours per chair hour during retention check** = Sum of Q13a and Q13b on EL for eligible events, divided by [the product of Q5c and Q7c on EL summed over eligible events]

**NOTE:** Since labor hour data and chair hour data are collected at the event level, this measure is only meaningful for the state as a whole or subsets of whole events.

12. **Administrative time (including organization, setup, and breakdown) per child screened (in hours)** = Sum of Q6 and Q7d on EL for eligible events, divided by # of eligible children

**NOTE:** Since data regarding administrative activity time is collected at the event level, this measure is only meaningful for the state as a whole or subsets of whole events.