CHAMP 2015 Network Data
Summary Report:
38 Practices
The CHAMP project would like to thank participating practice teams, the Vermont Department of Health, the American Academy of Pediatrics –VT Chapter and the Vermont Academy of Family Physicians for their ongoing support in developing the CHAMP Network.

Launched in 2012, CHAMP is a quality improvement and research initiative of the Vermont Child Health Improvement Program (VCHIP) at the University of Vermont in partnership with the Vermont Department of Health, American Academy of Pediatrics Vermont Chapter, and Vermont Academy of Family Physicians. Through CHAMP, VCHIP has engaged primary care practices in a longitudinal Network to improve healthcare for Vermont’s children and families.

**Included in this Report**
Each spring, VCHIP visits participating Network practices to collect data on a variety of healthcare services provided to children and families. This report summarizes the data collected from practices in the CHAMP Network as of spring 2015 (N=38). Chart/table denominators include all eligible children, regardless of whether they attended a specific health supervision visit, unless marked with an asterisk. This contrasts individual practice reports, where chart/table denominators include only children with applicable visit data. Chart titles in this report marked with an asterisk similarly report only children with applicable visit data.

**CHAMP’s Annual MOC Quality Improvement Focus Area**
Each year, CHAMP identifies a focus area for improvement activities and collects additional data to serve as the foundation for a Maintenance of Certification (MOC)-based quality improvement project open to all Network members. The 2015–2016 focus area is Developmental Screening and Adolescent Well Visits. Data on this content area were collected from documentation of health supervision visits that took place during the review period for children in the age group defined below. Data from the MOC focus area are at the end of this report.

**Inclusion Criteria**
Records eligible for review included those of patients who fit the age range categories below, who had one or more visits at their practice in the past three years, who had at least one health supervision visit in the practice at any time, and who had no documentation of transfer away from their practice.

**Data Collection Time Periods and Medical Record Review Age Ranges**
Trained VCHIP staff collected data from practices' medical records between February and May 2016 on services provided from 2012 through 2015. Each age group was assessed retrospectively (i.e., data for the early school-age group includes data from children with a 6-year visit in 2015, as well as data from their earlier 4- and 5-year visits).

Including all data collection years since CHAMP inception, four years of data are now available. Thus in this report, some data are presented longitudinally across 2012, 2013, 2014 and 2015. Year-to-year statistics reported by age group are an aggregate including data from all visits available per child (i.e., year-to-year statistics for 2012, 2013, 2014, and 2015 for early school-age children include data for children with a 6-year visit in the stated year, as well as their respective earlier 4- and 5-year visit data). The number of practices and records by age group included across the data collection years are displayed below.

For purposes of this report, VCHIP examined visits for:

<table>
<thead>
<tr>
<th>Age Group</th>
<th># Records</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>2013</td>
</tr>
<tr>
<td>Early Childhood</td>
<td>0-3 years</td>
</tr>
<tr>
<td>Early School-Age</td>
<td>4–6 years</td>
</tr>
<tr>
<td>Early Adolescence</td>
<td>11-13 years</td>
</tr>
<tr>
<td>Developmental Screening</td>
<td>0-3 years</td>
</tr>
<tr>
<td>Adolescent Well Visits</td>
<td>11-21 years</td>
</tr>
</tbody>
</table>

**Assessment versus Screening**
The following definitions of assessment and screening were used when collecting and reporting data:

- **Assessment** is an ongoing, cumulative process to recognize a current patient’s status and monitor it over time.
- **Screening** is a formal process that occurs at defined intervals with use of brief and objective standardized tools.

**For More Information**
For questions or concerns, contact Chris Pellegrino, MS, VCHIP QI Associate at Christine.Pellegrino@med.uvm.edu or (802) 656-8370.
At a Glance: Medical Record Review

Health Supervision Utilization

<table>
<thead>
<tr>
<th>Visit Age</th>
<th># Records</th>
<th>% Patients Transferring into Practice</th>
<th># Patients Missing ≥ 1 Visit(s)</th>
<th>% Male</th>
<th>% Medicaid</th>
<th>% Private Insurance</th>
<th>% Self-Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Childhood</td>
<td>827</td>
<td>24%</td>
<td>56</td>
<td>52%</td>
<td>54%</td>
<td>46%</td>
<td>1%</td>
</tr>
<tr>
<td>Early School-Age</td>
<td>1060</td>
<td>20%</td>
<td>48</td>
<td>50%</td>
<td>50%</td>
<td>49%</td>
<td>1%</td>
</tr>
<tr>
<td>Early Adolescence</td>
<td>1027</td>
<td>16%</td>
<td>62</td>
<td>50%</td>
<td>47%</td>
<td>52%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Health Supervision Utilization

Early Childhood Compliance with Recommended Health Supervision Schedule (10 visits)

- 2012: 21%
- 2013: 33%
- 2014: 35%
- 2015: 44%

Early School-Age Compliance with Recommended Health Supervision Schedule (3 visits)

- 2012: 52%
- 2013: 47%
- 2014: 55%
- 2015: 52%

Early Adolescence Compliance with Recommended Health Supervision Schedule (3 visits)

- 2012: 27%
- 2013: 26%
- 2014: 32%
- 2015: 38%
### Completed Immunization Series

**Early Childhood Completed Immunization Series (4314314)**

- 2012: 76%
- 2013: 80%
- 2014: 79%
- 2015: 64%

**Early School-Age Completed Immunization Series (1111)**

- 2012: 31%
- 2013: 36%
- 2014: 35%
- 2015: 34%

**Early Adolescence Completed Immunization Series (113)**

- 2012: 20%
- 2013: 25%
- 2014: 23%
- 2015: 32%

### Missed/Refused Immunizations

**Percent of Patients who Missed ≥1 Immunization(s) (Excluding Flu)**

- Early Childhood
  - 2012: 70%
  - 2013: 75%
  - 2014: 64%
  - 2015: 60%

- Early School-Age
  - 2012: 19%
  - 2013: 20%
  - 2014: 14%
  - 2015: 12%

- Early Adolescence
  - 2012: 16%
  - 2013: 14%
  - 2014: 12%
  - 2015: 10%

**# of Patients who Missed or Refused ≥1 Immunization(s) in the 2015 Data Collection (Excluding Flu)**

<table>
<thead>
<tr>
<th></th>
<th>Missed</th>
<th>Refused</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Childhood</td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>Early School-Age</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Early Adolescence</td>
<td>67</td>
<td>7</td>
</tr>
</tbody>
</table>

**Percent of Patients who Refused ≥1 Immunization(s) (Excluding Flu)**

- Early Childhood
  - 2012: 5%
  - 2013: 11%
  - 2014: 8%
  - 2015: 7%

- Early School-Age
  - 2012: 3%
  - 2013: 2%
  - 2014: 3%
  - 2015: 3%

- Early Adolescence
  - 2012: 4%
  - 2013: 3%
  - 2014: 3%
  - 2015: 3%

### Completed Flu Immunizations

**Early Childhood Completed Most Recent Seasonal Flu**

- 2012: 59%
- 2013: 61%
- 2014: 64%
- 2015: 68%

**Early School-Age Completed Most Recent Seasonal Flu**

- 2012: 56%
- 2013: 56%
- 2014: 57%
- 2015: 53%

**Early Adolescence Completed Most Recent Seasonal Flu**

- 2012: 43%
- 2013: 46%
- 2014: 48%
- 2015: 44%
Antigen-Specific Immunization Rates

Early Childhood Antigen-Specific Immunization Rates

Early School-Age Antigen-Specific Immunization Rates

Early Adolescence Antigen-Specific Immunization Rates

Early Adolescence HPV Immunizations
Early Childhood Developmental Screening

Developmental Screening Using a Validated Tool

Children with Three Developmental Screens by 30 Months

Screening Results using a Validated Tool (ASQ, PEDS, or Brigance)

Domains of Concern using a Validated Tool (ASQ, PEDS, or Brigance)

Validated Screening Tools Used by Tool Type

Early Childhood Autism Screening

Autism Screening Using a Validated Tool

Children with Two Autism Screens by 24 Months
At a Glance: Developmental Concerns

Developmental Concerns Assessed by Age Group

Types of Concerns in Early Adolescence among Adolescents, Parents & Practitioners

Strengths of Adolescent, Parent & Practitioner

Early Adolescent Strengths Assessed

Early Adolescents with Concerns Assessed for Strengths
Breast Feeding

Any Breast Feeding

<table>
<thead>
<tr>
<th>Age</th>
<th>% Any Breast Feeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mo</td>
<td>67%</td>
</tr>
<tr>
<td>4 Mo</td>
<td>61%</td>
</tr>
<tr>
<td>6 Mo</td>
<td>53%</td>
</tr>
</tbody>
</table>

Exclusive Breast Feeding

<table>
<thead>
<tr>
<th>Age</th>
<th>% Exclusive Breast Feeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Week</td>
<td>63%</td>
</tr>
<tr>
<td>1 Mo</td>
<td>49%</td>
</tr>
<tr>
<td>2 Mo</td>
<td>45%</td>
</tr>
<tr>
<td>4 Mo</td>
<td>31%</td>
</tr>
</tbody>
</table>

Oral Health

≥1 Oral Health Assessment between 12 and 24 Months

% Assessed: 80%

≥1 Fluoride Varnish Application between 12 and 24 Months

% Applied: 58%

Early School-Age & Adolescence Blood Pressure

Early School-Age Blood Pressure Documented

<table>
<thead>
<tr>
<th>Year</th>
<th>% Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>74</td>
</tr>
<tr>
<td>2013</td>
<td>75</td>
</tr>
<tr>
<td>2014</td>
<td>75</td>
</tr>
<tr>
<td>2015</td>
<td>74</td>
</tr>
<tr>
<td>2012</td>
<td>81</td>
</tr>
<tr>
<td>2013</td>
<td>81</td>
</tr>
<tr>
<td>2014</td>
<td>80</td>
</tr>
<tr>
<td>2015</td>
<td>79</td>
</tr>
</tbody>
</table>

Early Adolescence Blood Pressure Documented

<table>
<thead>
<tr>
<th>Year</th>
<th>% Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>62</td>
</tr>
<tr>
<td>2013</td>
<td>67</td>
</tr>
<tr>
<td>2014</td>
<td>62</td>
</tr>
<tr>
<td>2015</td>
<td>69</td>
</tr>
<tr>
<td>2012</td>
<td>68</td>
</tr>
<tr>
<td>2013</td>
<td>74</td>
</tr>
<tr>
<td>2014</td>
<td>73</td>
</tr>
<tr>
<td>2015</td>
<td>75</td>
</tr>
</tbody>
</table>

Health Supervision, Risk & Safety, Immunizations, Developmental Concerns & Strengths, Blood, BMI & Weight, Developmental Screening, Adolescent Well Visits
**Weight status documented means words like "normal weight," "overweight," or categorization like "BMI > 85%," versus just BMI percentile.

CHAMP collection of Early School-Age healthy weight data measures began in 2013.

**Weight Status Categories: Obese = BMI ≥ 95%, Overweight = BMI ≥ 85–95%, Normal = BMI 5–85%, Underweight < 5%
*CHAMP collection of Early School-Age healthy weight data measures began in 2013.
Healthy Weight, Nutrition & Physical Activity

At a Glance: Early School-Age Children Assessment & Counseling

Concerns & Strengths
Blood, BMI & Weight
Developmental Screening
Adolescent Well Visits

Health Supervision
Risk & Safety
Immunizations
Development Concerns & Strengths

Early Adolescence Nutrition Assessed

Early Adolescence Physical Activity Assessed

Early Adolescence Nutrition Counseling

Early Adolescence Physical Activity Counseling

Early Adolescence Nutrition Goals Set

Early Adolescence Physical Activity Goals Set
At a Glance:

ACO Measure: Developmental Screening

≥1 Developmental Screen in 1st, 2nd, or 3rd Year of Life

Health Supervision Visits Completed by Age*

Health Supervision Visit with Developmental Screen Completed by Visit
At a Glance:

Adolescents 12–21 Years with Health Supervision Visit in Last Calendar Year

<table>
<thead>
<tr>
<th>Year of Age</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
<th>21</th>
</tr>
</thead>
<tbody>
<tr>
<td>% with HSV</td>
<td>77%</td>
<td>71%</td>
<td>78%</td>
<td>59%</td>
<td>63%</td>
<td>57%</td>
<td>57%</td>
<td>41%</td>
<td>35%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Adolescents 12–21 Years with Health Supervision Visit in Last Calendar Year by Age*

<table>
<thead>
<tr>
<th>Year of Age</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
<th>21</th>
</tr>
</thead>
<tbody>
<tr>
<td>% with HSV</td>
<td>77%</td>
<td>71%</td>
<td>78%</td>
<td>59%</td>
<td>63%</td>
<td>57%</td>
<td>57%</td>
<td>41%</td>
<td>35%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Adolescents 12–21 Years with Health Supervision Visit in Last Calendar Year by Insurance

<table>
<thead>
<tr>
<th>Insurance</th>
<th>Medicaid</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>% with HSV</td>
<td>40%</td>
<td>59%</td>
</tr>
</tbody>
</table>

Adolescents 12–21 Years with Health Supervision Visit in Last Calendar Year by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>% with HSV</td>
<td>53%</td>
<td>47%</td>
</tr>
</tbody>
</table>

ACO Measure: Adolescent Well Visits
Adolescent Well Visits

At a Glance:

Adolescents 12–21 Years with Various Assessments/Screening Completed at HSV

Adolescents 12–21 Years with Various Assessments Completed at HSV

Alcohol/Drug Assessment

Depression Screening Tool

<table>
<thead>
<tr>
<th>Assessment</th>
<th>% Assessed</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI Percentile</td>
<td>54%</td>
<td>Documented</td>
</tr>
<tr>
<td>Weight Status Documented</td>
<td>24%</td>
<td>Asked about Concerns</td>
</tr>
<tr>
<td>Asked about Concerns</td>
<td>58%</td>
<td>Strengths Identified</td>
</tr>
<tr>
<td>Tobacco Use</td>
<td>51%</td>
<td>PHQ2, 18%</td>
</tr>
<tr>
<td>Sexual Activity</td>
<td>39%</td>
<td>PHQ9 or PHQ A, 53%</td>
</tr>
<tr>
<td>Alcohol/Drug Use</td>
<td>46%</td>
<td>Informal Assessment, 27%</td>
</tr>
<tr>
<td>Depression</td>
<td>49%</td>
<td>No Documentation, 0.3%</td>
</tr>
<tr>
<td>Safety/Violence</td>
<td>50%</td>
<td>Previously identified depression, 2%</td>
</tr>
</tbody>
</table>

No Documentation, 0.12%  No Documentation, 0.3%
Informal Assessment, 67%
Informal Assessment, 27%
CRAFFT, 33%
Prevalently Identified, 0.24%

### Health Supervision
- Risk & Safety
- Immunizations
- Development
- Concerns & Strengths
- Blood, BMI & Weight
- Developmental Screening
- Adolescent Well Visits
CHAMP Quality Improvement Focus Schedule

Quality Improvement Focus Area Sampling Schedule

<table>
<thead>
<tr>
<th>Chart Review Focus Areas</th>
<th>Immunizations</th>
<th>Immunizations</th>
<th>Immunizations</th>
<th>Immunizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Adolescent Depression QI-2</td>
<td>Early Adolescence</td>
<td>Pre Healthy Weight QI-3</td>
<td>Early Adolescence</td>
<td>Pre Asthma QI-4</td>
</tr>
<tr>
<td>Early School-Age</td>
<td>Early School-Age</td>
<td>Early Childhood</td>
<td>Early Childhood</td>
<td>Post Adolescent Depression QI-2</td>
</tr>
<tr>
<td>Early Childhood</td>
<td>Early Childhood</td>
<td>Pre Dev. Screening &amp; AWV QI-5</td>
<td>Early Adolescence</td>
<td>Post Healthy Weight QI-3</td>
</tr>
</tbody>
</table>

Immunization QI-1
10/1/2012-5/1/2013
Spring 2013 Review

Adolescent Depression QI-2
10/1/2013-5/1/2014
Spring 2014 Review

Healthy Weight QI-3
10/1/2014-5/1/2015
Spring 2015 Review

Asthma QI-4
10/1/2015-5/1/2016
Spring 2016 Review

Sampling Dates for Chart Reviews