CHAMP 2014 Network Data Summary Report: 39 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=39). Chart/table denominators include all eligible children, regardless of whether they attended a specific health supervision visit, unless otherwise specified. This contrasts individual practice reports, where chart/table denominators include 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 2014–2015 focus area is asthma assessment, screening and care. Data on this content area were collected from documentation of respiratory and 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 2015 on services provided from 2012 through 2014. 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 2014, as well as data from their earlier 4- and 5-year visits).

Including all data collection years since CHAMP inception, three years of data are now available. Thus in this report, some data are presented longitudinally across 2012, 2013 and 2014. The number of practices in the Network continues to grow each year, and the number of charts reviewed thus also increases each year. 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, and 2014 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># Practices</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Childhood</td>
<td>29</td>
<td>33</td>
<td>39</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Range</th>
<th># Records</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Childhood</td>
<td>0–3 years</td>
<td>659 791 836</td>
</tr>
<tr>
<td>Early School-Age</td>
<td>4–6 years</td>
<td>787 1020 1051</td>
</tr>
<tr>
<td>Early Adolescence</td>
<td>11–13 years</td>
<td>778 975 1107</td>
</tr>
<tr>
<td>Depression</td>
<td>13–19 years</td>
<td>1569 — 1774</td>
</tr>
<tr>
<td>Asthma</td>
<td>5–19 years</td>
<td>— — 1528</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 at Christine.Pellegrino@med.uvm.edu or (802) 656-8370.
Health Supervision Utilization

<table>
<thead>
<tr>
<th>Health Supervision Utilization</th>
<th>Early Childhood Compliance</th>
<th>Early School-Age Compliance</th>
<th>Early Adolescence Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Utilization</td>
<td>99% 97% 94% 94%</td>
<td>88% 91% 79% 80%</td>
<td>84% 86% 69% 74%</td>
</tr>
<tr>
<td># Visits</td>
<td>11526</td>
<td>1051</td>
<td>1107</td>
</tr>
<tr>
<td>% Compliance</td>
<td>35% 55% 32%</td>
<td>55% 64% 57%</td>
<td>65% 55% 64%</td>
</tr>
<tr>
<td>% Full Compliance</td>
<td></td>
<td>55% 64% 57%</td>
<td>65% 55% 64%</td>
</tr>
</tbody>
</table>

Health Supervision

<table>
<thead>
<tr>
<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>836</td>
<td>21%</td>
<td>65</td>
<td>52%</td>
<td>54%</td>
<td>44%</td>
</tr>
<tr>
<td>Early School-Age</td>
<td>1051</td>
<td>26%</td>
<td>45</td>
<td>49%</td>
<td>50%</td>
<td>48%</td>
</tr>
<tr>
<td>Early Adolescence</td>
<td>1107</td>
<td>15%</td>
<td>68</td>
<td>49%</td>
<td>42%</td>
<td>57%</td>
</tr>
</tbody>
</table>

Depression

<table>
<thead>
<tr>
<th>% Patients Transferring into Practice</th>
<th>% Male</th>
<th>% Medicaid</th>
<th>% Private Insurance</th>
<th>% Self-Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>1774</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>62%</td>
</tr>
</tbody>
</table>

Asthma

<table>
<thead>
<tr>
<th>% Patients Transferring into Practice</th>
<th>% Male</th>
<th>% Medicaid</th>
<th>% Private Insurance</th>
<th>% Self-Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>1528</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>50%</td>
</tr>
</tbody>
</table>
Completed Immunization Series

Early Childhood Completed Immunization Series (4314314)

- 2012: 76%
- 2013: 30%
- 2014: 79%

Early School-Age Completed Immunization Series (1111)

- 2012: 81%
- 2013: 86%
- 2014: 85%

Early Adolescence Completed Immunization Series (113)

- 2012: 20%
- 2013: 25%
- 2014: 29%

Missed/Refused Immunizations

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

- Early Childhood: 130
- Early School-Age: 125
- Early Adolescence: 741

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

- Early Childhood: 59
- Early School-Age: 31
- Early Adolescence: 78

Completed Flu Immunizations

Early Childhood Completed Most Recent Seasonal Flu

- 2012: 39%
- 2013: 61%
- 2014: 54%

Early School-Age Completed Most Recent Seasonal Flu

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

Early Adolescence Completed Most Recent Seasonal Flu

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

Early Childhood Antigen-Specific Immunization Rates

- DTaP: 93%
- IPV: 95%
- MMR: 94%
- Hib: 89%
- HepB: 92%
- VZV: 91%
- PCV: 91%
- HepA: 78%
- Roto: 81%
- Flu: 64%

Early School-Age Antigen-Specific Immunization Rates

- DTaP: 92%
- IPV: 93%
- MMR: 94%
- VZV: 90%
- Flu: 57%
- Tdap: 97%
- MCV 4: 84%
- HPV: 30%
- Flu: 48%

Early Adolescence Antigen-Specific Immunization Rates

HPV Vaccination Completion by 13 years by Gender
- Male: 53%
- Female: 63%

HPV Vaccination Initiation by 13 years for Females
- 2012: 48%
- 2013: 58%
- 2014: 53%

HPV Vaccination Completion by 13 years for Females
- 2012: 31%
- 2013: 33%
- 2014: 34%
Early Childhood Developmental Screening

### Developmental Screening Using a Validated Tool

![Graph showing developmental screening results](image)

**Children with Three Developmental Screens by 30 Months**

- **2012:** 25%
- **2013:** 26%
- **2014:** 25%

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

<table>
<thead>
<tr>
<th>Domain</th>
<th>9 Mo</th>
<th>18 Mo</th>
<th>24 Mo</th>
<th>30 Mo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Solving</td>
<td>1%</td>
<td>45%</td>
<td>39%</td>
<td>26%</td>
</tr>
<tr>
<td>Motor</td>
<td>4%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Communication</td>
<td>1%</td>
<td>4%</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>Social</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
</tr>
</tbody>
</table>

**Validated Screening Tools Used by Tool Type**

- **ASQ:** 45%
- **PEDS:** 39%
- **Brigance:** 26%
- **ASQ-SE:** 61%
- **DENVER II:** 0%

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

- **Problem Solving:** 1%
- **Motor:** 1%
- **Communication:** 6%
- **Social:** 1%

Early Childhood Autism Screening

### Autism Screening Using a Validated Tool

![Graph showing autism screening results](image)

**Children with Two Autism Screens by 24 Months**

- **2012:** 43%
- **2013:** 39%
- **2014:** 41%
At a Glance: Developmental Concerns

Developmental Concerns Assessed by Age Group

Number of Children with ≥ 1 Developmental Concerns 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
**BMI, Blood Pressure & Nutrition**

### Breast Feeding

#### Any Breast Feeding
- **1 Mo:** 33%
- **4 Mo:** 55%
- **6 Mo:** 47%

#### Exclusive Breast Feeding
- **2 Week:** 64%
- **1 Mo:** 25%
- **2 Mo:** 47%
- **4 Mo:** 32%

### Body Mass Index

#### Early Childhood BMI Percentile Documented
- **24 Mo Visit:**
  - 2012: 0%
  - 2013: 20%
  - 2014: 40%

#### Early School-Age BMI Percentile Documented
- **4 Yr:**
  - 2012: 0%
  - 2013: 20%
  - 2014: 40%

- **5 Yr:**
  - 2012: 0%
  - 2013: 20%
  - 2014: 40%

- **6 Yr:**
  - 2012: 0%
  - 2013: 20%
  - 2014: 40%

#### Early Adolescence BMI Percentile Documented
- **11 Yr:**
  - 2012: 0%
  - 2013: 20%
  - 2014: 40%

- **12 Yr:**
  - 2012: 0%
  - 2013: 20%
  - 2014: 40%

- **13 Yr:**
  - 2012: 0%
  - 2013: 20%
  - 2014: 40%

### Early School-Age & Adolescence Blood Pressure

#### Early School-Age Blood Pressure Documented
- **33%**
- **55%**
- **47%**

#### Early Adolescence Blood Pressure Documented
- **64%**
- **25%**
- **47%**
- **32%**
Weight Status Documented

*Weight status documented means words like "normal weight," "overweight," or categorization like "BMI >85%," versus just BMI percentile.

Early School-Age, Early Adolescence, & Adolescent with Depression Weight Status

*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.
Adolescent Depression

At a Glance: Adolescent Assessment & Screening

Adolescent Depression Follow-up, Strengths & Concerns

- Of Those Screened with a Tool, % Validated Tool 100%
- Of Those Assessed or Screened, % with Depressive Symptoms
- Of Adolescents with Depressive Symptoms, % with Follow-up Plans
- Of Adolescents with Depressive Symptoms, % Asked about Strengths
- Of Adolescents with Depressive Symptoms, % Asked about Concerns
- Adolescent Depression Tobacco, Drugs & Sexual Activity Screening and Use

Adolescent Depression Tobacco, Drugs & Sexual Activity Screening and Use

- Substance Use/Sexual Activity Screened among Adolescents 13–19 Years
- Substance Use/Sexual Activity among Adolescents 13–19 Years with Depressive Symptoms
At a Glance: Asthma Severity, Control & Care (5–19 Years)

**Asthma Severity Documented***
- 63% of 2014

**Asthma Severity Level Documented in Past 12 Months**
- Moderate Persistent: 11%
- Severe Persistent: 0%
- Not Documented: 37%
- Mild Persistent: 15%
- Intermittent: 30%

**Asthma Control Documented in Past 12 Months**
- 43% of 2014

**Spirometry Test in Past 12 Months**
- 13% of 2014

**Of Asthma Control Documented in Past 12 Months, % Documented with a Validated Tool**
- 47% of 2014

**Of Documented, % with Validated Tool**
- Not Well-Controlled: 27%
- Well-Controlled: 67%

**Of Documented, % with Asthma Action Plan**
- 57% of 2014

**Of Documented, % with Asthma-Related ER Visit(s) in Past 12 Months**
- 5% of 2014

**Of Documented, % with Tobacco Exposure/Use in Past 12 Months**
- 22% of 2014

**Of Documented, % with Tobacco Exposure/Use in Past 12 Months**
- 55% of 2014

*Asthma severity documented in 2014 health supervision or asthma-related visits or a problem/diagnosis list.

**Persistent Asthma with Prescribed Controller Medication**

**Asthma Education Provided in Past 12 Months**
- 57% of 2014

**Up-to-Date Asthma Action Plan**
- 32% of 2014

**Asthma-Related Emergency Room Visit(s) in Past 12 Months**
- 5% of 2014

**Tobacco Exposure/Use in Past 12 Months**
- 22% of 2014

**Follow-up with Primary Care within 7 Days of Asthma-Related ER Visit in Past 12 Months**
- 55% of 2014