



**STATE OF MAINE**

**Sixth Report  
of the  
MAINE VACCINE BOARD**

*for the*  
**State Fiscal Year ended June 30, 2016**

**December 2016**

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**Peter Gore, Chair**  
**Judith Chamberlain, MD**  
**Deborah Deatruck, MPH**  
**Terry Hayes, State Treasurer**  
**Larry Losey, MD**  
**Katherine Pelletreau, MPH**  
**Forrest West, MD**  
**Gary Connor, RN**  
*(ex officio)* **Lori Wolanski, MPH**

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## EXECUTIVE SUMMARY

This is the sixth annual report of the Maine Vaccine Board (MVB). MVB assessment collections commenced on November 15, 2011. The MVB raises funds to support universal childhood vaccine purchases at the Maine CDC's favorable rates by assessing insurers and other entities responsible for the health benefits afforded to Maine's children. Assessment compliance by payers continues to be strong. The close of the 2015/16 fiscal year saw the MVB continuing to advance in organizational maturity and improved efficiency. The MVB has now completed four full years of operation.

At the core of MVB's mission is the desire to reduce the occurrences of vaccine preventable disease by increasing medically-appropriate use of vaccines for Maine's children. This year continues MVB's success in that goal. Maine's childhood immunization rates continue to improve. As noted in MVB's VaxFacts<sup>SM</sup> for 2015/16, primary credit for this significant turnaround should go to the Maine CDC and Maine's pediatric care providers. But the contributions of the pharmaceutical industry and healthcare payers, directly and through MVB, should also be noted as significant. While assisting to advance this goal, MVB also enabled overall systemic cost savings to be realized for the provider community and the insurer community.

State vaccine purchases with MVB funds and distribution to providers began in January 2012. This report contains data for the fiscal year July 1, 2015- June 30, 2016:

Fiscal Year 7/1/2015 - 6/30/2016	
Total Number of Payers (4-qtr average)	108
Total Assessments Raised	\$13,274,848.17
Average Monthly Child Covered Lives	135,189
Number of Meetings	4

All Board meetings are open to the public and afford opportunity for public comment. Both oral and written comments are welcome. The Board met on 09-15-2015, 10-30-2015, 12-01-2015, and 05-17-2016. Detailed information about the MVB and its operations, including minutes of all board meetings, is available at [www.MEvaccine.org](http://www.MEvaccine.org).

## HISTORY AND DESCRIPTION OF THE MAINE VACCINE BOARD

The history and information regarding the Maine Vaccine Board can be found on our website: [www.MEvaccine.org](http://www.MEvaccine.org).

### THE VACCINE BOARD

The MVB was created by the 124th Legislature through the enactment of Public Law 595. That law took effect on August 2, 2010. The Board consists of nine members, with representatives from the health insurance carrier community, the health provider community, the public health community, self-insuring employers, the pharmaceutical industry, and the Maine Department of Health and Human Services. Peter M. Gore currently serves as Board chair. Lori Wolanski, Director, Division of Disease Control, now serves as the DHHS Commissioner's designee. With the exception of the pharmaceutical manufacturing industry representative, who serves a one-year term, the terms of Board members are three years.

### SUMMARY OF PROGRAM PROGRESS

Vaccine supply for children eligible for free vaccines under the federal Vaccines for Children (VFC) program continues to be managed by the Maine Center for Disease Control and Prevention (Maine CDC). These vaccines are funded by grants from the federal Centers for Disease Control and Prevention (federal CDC) to the Maine CDC. Commencing January 1, 2012, the Maine CDC expanded its free vaccine supply to cover all children (hence "universal"). Vaccines for non-VFC-eligible children now are purchased by the State of Maine at the same favorable federal CDC contract rates negotiated with vaccine manufacturers for the VFC program.

MVB has adopted four assessment rate changes since its formation. The first was a rate reduction in response to early assessment collections which were better than anticipated. The second, effective April 1, 2013, implemented an increase necessitated by increased vaccine utilization, increased vaccine costs and the fact that providers had exhausted their supplies of previously purchased vaccines. The third assessment rate change, effective in Quarter 2 of the 2015/16 year, was \$9.19 per covered life. This rate again reflected Maine's ongoing vaccination rate improvements, vaccine cost inflation, and new vaccine recommendations.

A combination of factors, including excellent inventory management by the Maine CDC, strong provider care of vaccine supply, and continuous work by MVB's Service Agent, KidsVax® to broaden the assessment base, led to collection of more assessment dollars last year than were needed. As a result, the MVB on September 28, 2016, voted a substantial assessment reduction to \$3.17 per child covered life per month for 2017. At the same time, MVB advised payers that its best estimate of the assessment rate for 2018 would be \$7.91 per child covered life per month.

MVB Assessment Rates	
2011/2012	\$6.98
2012/2013	\$6.81
2013/2014	\$8.16

2015*	\$8.16
2016	\$9.19
2017	\$3.17

\*An annual assessment review began in 2015 moving from a fiscal year assessment rate to a calendar year assessment rate. The assessment rate remained at \$8.16 of the remainder of calendar year 2014.

With MVB's oversight of the universal vaccine program and support for the efforts of Maine CDC and others, Maine's trend of downward childhood immunization rates has been reversed. This is particularly important as a way to improve the health of all Mainers by reducing or eliminating vaccine-preventable diseases. In addition, there is a multiplier effect of childhood immunization dollars in reducing long term healthcare costs. As documented in Exhibit B, experts estimate the long term financial cost reduction through disease avoidance at over \$10 for each \$1 of childhood immunization costs. This cost benefit to healthcare payers, of course, is in addition to the indirect benefits of improved health, avoidance of loss of work, and so on.

### OUR CONTINUED THANKS

MVB is grateful for the support of its key constituents: payers, providers, and the Maine CDC. Special thanks go to the board members and their employers (who allow time for this service to the state without charge), the staff of the Maine CDC, the Maine State Treasurer's Office, and the Office of Attorney General, all of whom have facilitated its work in improving childhood health in the State of Maine. Other agencies, including the MVB's auditor, Dawson, Smith, Purvis, and Bassett, PA, have remained resourceful and diligent in supporting the board.

Note: This report has been compiled by Fred L. Potter who serves the MVB as its servicing agent through a turnkey Executive Director and Administrative Services Agreement with KidsVax®, LLC. Fred's contact information is below. He will be happy to respond to any questions this report may prompt.

Fred L. Potter • *Managing Member*



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October 31, 2016

Maine Vaccine Board  
P.O. Box 1885  
Concord, NH 03302-1885

**MBV Program Savings Calculation for FYE 6/30/2016 & FYE 6/30/2015**

Dear Directors,

Below is our calculation of the savings that the program has created in the fiscal years ended June 30, 2015 and June 30, 2016.

	(A) <u>FY 6/2016</u>	(B) <u>FY 6/2015</u>
A. CDC Survey Market Comparison costs:	\$16,413,677	\$14,939,756
(Actual doses per brand x CDC market survey)		
B. MVB Program costs:		
Cost of vaccine replenishments	\$10,048,369	\$10,806,509
+ Operating Cost	154,267	141,476
+ Leakage & Bad Debt	-	-
+/- Incremental Reserve Adj.	-	-
= Total Program Cost	\$10,202,636	\$10,947,985
C. MVB Program Savings (A - B = C)	\$ 6,211,041	\$ 3,991,771
D. Program Savings Percentage (C / A = D)	37.84%	26.72%
E. Savings per child covered life per year	\$47.37	\$31.95
(Covered lives: FY2016= 131,117, FY2015= 124,921)		

Notes:

1. In any program like this it is not possible to calculate savings with 100% accuracy. There are a number of reasons for this including the fact that some providers may continue to bill for some private supply.
2. The market comparison used for each dose is an average of prices given in response to the survey conducted annually by the CDC. Information is not provided on volume or location purchased. This CDC survey just addresses vaccine costs. It does not include other costs such as management fees, financing costs or other overhead, which some providers properly include in billings. Neither does it include normal payer administration costs for individual claims administration.
3. We believe this is a fair representation of the cost savings for the vaccines themselves. Payments to providers for administration of vaccines, of course, are completely outside of this system.
4. KidsVax.org will continue to track this metric periodically to aid the MVB in monitoring its program effectiveness.

Sincerely,

Peter M. Smith  
Financial & Internal Control Analyst

cc: Fred L. Potter, Nicole Price



Exhibit B

National and State of Maine Vaccine Cost Savings and National Morbidity Reduction

**Table 1**

**Estimated Return on Investment of Childhood Vaccines in the US and Maine**

On average, for each *US birth cohort* vaccinated through age 6 against 13 diseases\* :

- 42,000 lives are saved
- 20 million cases of disease are prevented
- For each dollar invested in these vaccinations, \$10.1 is saved
- 13.5 billion dollars in direct costs are saved
- 68.8 billion dollars in direct plus indirect (societal) costs are saved

\*Fangjun Zhou, PhD et al, National Immunization Conference 2011.

On average, for each *Maine birth cohort* vaccinated through age 6 against 13 diseases\*\* :

- 135 lives are saved
- 600,000 cases of disease are prevented
- For each dollar invested in these vaccinations, \$10.1 is saved
- 43 million dollars in direct costs are saved
- Indirect societal costs not calculated for Maine.

\*\* *Assumption:* Disease rates and costs in Maine are equal to national averages.

Fangjun Zhou, PhD, Health Scientist, Immunization Services Division, Centers for Disease Control and Prevention.

*Birth cohort:* # of births in one year and group followed through 6 years of age. The cost savings to the state is calculated based on the birth cohort receiving all childhood vaccines to protect them against 13 vaccine preventable childhood diseases.

*Direct Costs:* Medical costs saved.

**Table 2**

**Comparison of 20<sup>th</sup> Century Annual Morbidity and Current Morbidity: Vaccine-Preventable Diseases**

<u>Disease</u>	<u>20th Century Annual Morbidity</u>	<u>2011 Reported Cases</u>	<u>Percent Decrease</u>
Smallpox	29,005	0	100%
Diphtheria	21,053	0	100%
Measles	530,217	222	>99%
Mumps	162,344	404	>99%
Pertussis	200,752	18,719	91%
Polio (paralytic)	16,316	0	100%
Rubella	47,745	4	>99%
Congenital Rubella Syndrome	152	0	100%
Tetanus	580	36	94%
Haemophilus influenzae	20,000	14	>99%

<sup>1</sup> Source: JAMA. 2007;298(18):2155-2163

<sup>11</sup> Source: CDC, MMWR August 17, 2012;61(32):624-637. (final 2011 data)

*Haemophilus influenzae* type b (Hib) < 5 years of age. An additional 14 cases of Hib are estimated to have occurred among the 226 reports of Hib (< 5 years of age) with unknown serotype.

**Exhibit C--VaxFacts<sup>SM</sup>**

The two pages which follow provide an overview of MVB activities for the past fiscal year along with high level financial summaries and links to MVB's website locations for more detailed financial data. A full-sized version of the VaxFacts<sup>SM</sup> report is available for viewing or download on MVB's home page at [www.MEvaccine.org](http://www.MEvaccine.org).



# VaxFacts<sup>SM</sup>

## MVB | MAINE VACCINE BOARD

### TIMELINE

#### 2009

Seeking to protect Maine's children from disease and to lower health care costs, the Maine Legislature passed a bill establishing a universal childhood immunization program.

#### 2010-11

The Maine Vaccine Board (MVB) was created, and MVB hired KidsVax<sup>®</sup> to administer the program. MVB took up vaccine selection and assessment rate setting and commenced operation.

#### 2012

State vaccine purchases with MVB funds and distribution to providers began in January. Initial reports confirmed that the program reduced costs. Additionally, the program assisted Maine CDC in raising childhood immunization rates.

#### 2013

MVB simplified the process for setting the vaccine list. KidsVax<sup>®</sup>, the Maine Bureau of Insurance, and the Attorney General's Office worked to narrow the gap between projected and reported child covered lives and to ensure that assessments are allocated equitably. Maine's universal vaccination program was recognized nationally for its success in improving statewide healthcare.

#### 2014-2016

With funding secured via MVB, Maine CDC, providers, and payers were able to work toward arresting the prior decline in immunization rates.

The Maine Vaccine Board (MVB) funds Maine's universal childhood vaccine purchasing and distribution program. The program yielded over \$47 in savings per child this year. That added up to over \$6MM in total health care cost savings.

More important than the cost savings yielded by Maine's universal vaccine program for children ages 0 to 19, are the health benefits from improved immunization rates for Maine's children. Most of the credit for this goes to Maine's healthcare providers, in cooperation with the Maine CDC's vaccine distribution system, clinical expertise and technical support. The work of the Maine Vaccine Board in overseeing the universal vaccine program has been aided by representatives of the Maine CDC, as well as the cooperation of insurance companies who do business in Maine.

**Independent studies estimate that for each Maine birth cohort vaccinated through age 6 against 13 diseases\*:**

- ▶ **135 lives are saved.**
- ▶ **600,000 cases of disease are prevented.**
- ▶ **\$43 million in indirect costs are saved.**
- ▶ **\$10.10 is saved in direct healthcare costs for each \$1 spent on vaccines.**

\*Data from JAMA and CDC MMWR

MaineHealth's Health Index website tracks improvement in childhood vaccination coverage, [www.mainehealthindex.org](http://www.mainehealthindex.org).



\*2015 National Immunization Survey Childhood Report, published Oct. 2016

MVB has reduced administrative and financial burdens on health care providers. Instead of having to purchase vaccines up front and await repayment from insurance companies, provider offices now receive vaccines from the state free of charge.

MVB is a joint public and private effort in collaboration with the Maine CDC to improve immunization rates while lowering the costs of health care. The universal childhood vaccine purchasing program administered by the MVB allows the state to purchase vaccines for all Maine's children at substantially discounted rates. Funds from private insurers are pooled with VFC funds to fund the program and pay for the vaccines administered to their beneficiaries – at a much lower cost than they could secure on the private market.





## MVB Board of Directors

**Judith Chamberlain, MD**  
Senior Medical Director  
Aetna Medicaid

**Gary Connor, RN**  
Asclepius Research Services, Inc.

**Deborah Deatrck, MPH**  
Senior Vice President for Community Health  
MaineHealth

**Peter Gore, Chairman**  
Vice President  
Maine State Chamber of Commerce

**Terry Hayes**  
Maine State Treasurer,  
Office of the Treasurer

**Larry Losey, MD**  
Central Maine Pediatrics  
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**Katherine Pelletreau, MPH**  
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**Lori Wolanski, MPH**  
Director, Division of Infectious Disease  
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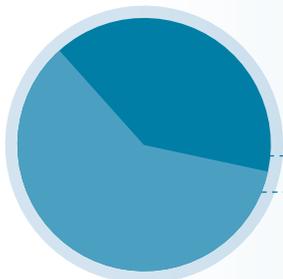
## Maine: Advocating to Improve Public Health

Immunization Rates for the 4:3:1:3:3:1:4 Antigen Series*	United States 2015	Maine 2015
Diphtheria and tetanus toxoids & acellular pertussis (DTaP/DT/DTP)	84.6%	92%
Poliovirus (Polio)	93.7%	95%
Measles or Measles-Mumps-Rubella (MMR)	91.9%	96%
Haemophilus influenza type b (Hib)	82.7%	84.5%
Hepatitis B (HepB)	92.6%	88.9%
Varicella -chicken pox- (VAR)	91.8%	93.8%
Pneumococcal conjugate vaccine (PCV)	84.1%	84.9%

\*Data from the 2015 National Immunization Survey Childhood Report (NIS). The NIS uses a total sample size of 15,167 children nationally, a smaller subset of this total represent Maine children.

## FINANCIALS

July 1, 2015 - June 30, 2016



### Vaccine Funding Sources

Total: \$23,995,813

41.9% | MVB Funds (from private insurers)

58.1% | Federal Contribution (Vaccines for Children (VFC) Funds)



### MVB Program Expenditures\*

Total: \$10,202,636

98.5% | Remittance to ME for Vaccine Costs

1.5% | Operating Costs

\*This chart reflects funding operations for MVB-funded vaccines. The overall success of Maine's universal vaccine program is a result of the contributions of the Maine CDC, providers, payers, and others not reflected in this chart.

WWW.MEVACCINE.ORG

ADMINISTRATOR:



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### KIDSVAX STAFF

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Financial Analyst

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Controller

**Matthew Miller**  
Client Services Coordinator