Texas Department of State Health Services

Immunization Branch
2014-2015 Update

TEXAS Department of State Health Services

VACCINES
Build your child's health

Celebrating 20 Years of Texas Vaccines for Children

Vaccines for Children

20 years of protecting America's children

The Vaccines for Children program was established in 1994 to make vaccines available to uninsured children. VFC has helped prevent disease and save lives...big time!

CDC estimates that vaccination of children born between 1994 and 2013 will:

prevent **322 million** illnesses → more than the current population of the entire U.S.A.

help avoid **732,000** deaths → greater than the population of Boston, MA.

save nearly **$1.4 trillion** in total societal costs → or $4,473 for each American

(that includes $295 billion in direct costs)

MMWR: Benefits from Immunization During the Vaccines for Children Program Era — United States, 1994–2015 NCIRD-404 | 04.25.2014

20 Years of Success VFC Vaccine for Children Program

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

www.cdc.gov/features/vfcprogram

VFC BELONGS TO CHILDREN

Immunization in the United States

- Most vaccine-preventable diseases at record lows
- Achieved & sustained high childhood immunization
- Reduced disparities in childhood coverage
- Introduced multiple new vaccines
- Improved production and suppliers of influenza vaccine
- Combination of public and private insurance make vaccines accessible to virtually all children and adolescents

Vaccines Available 1994 to 2014

- 1994 (9)
  - Measles
  - Rubella
  - Mumps
  - Diphtheria
  - Tetanus
  - Pertussis
  - Polio
  - Hib (infant)
  - Hepatitis B

MMR

DTP

- 2014 (16)
  - Measles
  - Rubella
  - Mumps
  - Diphtheria
  - Tetanus
  - Pertussis
  - Polio
  - Hib (infant)
  - Hepatitis B
  - Varicella
  - Pneumococcal Disease
  - Influenza
  - Hepatitis A
  - Meningococcal
  - Rotavirus
  - HPV

MMR

DTaP

Vaccine Ordering and Delivery- 1994

- Ordering
  - Phone Orders
  - Fax Orders
  - Pen/paper
- Delivery
  - Personal vehicle
  - Up to several weeks
  - Igloo Coolers
  - Dry Ice from the local grocery store
  - Thermometers (maybe)
  - Dorm refrigerators

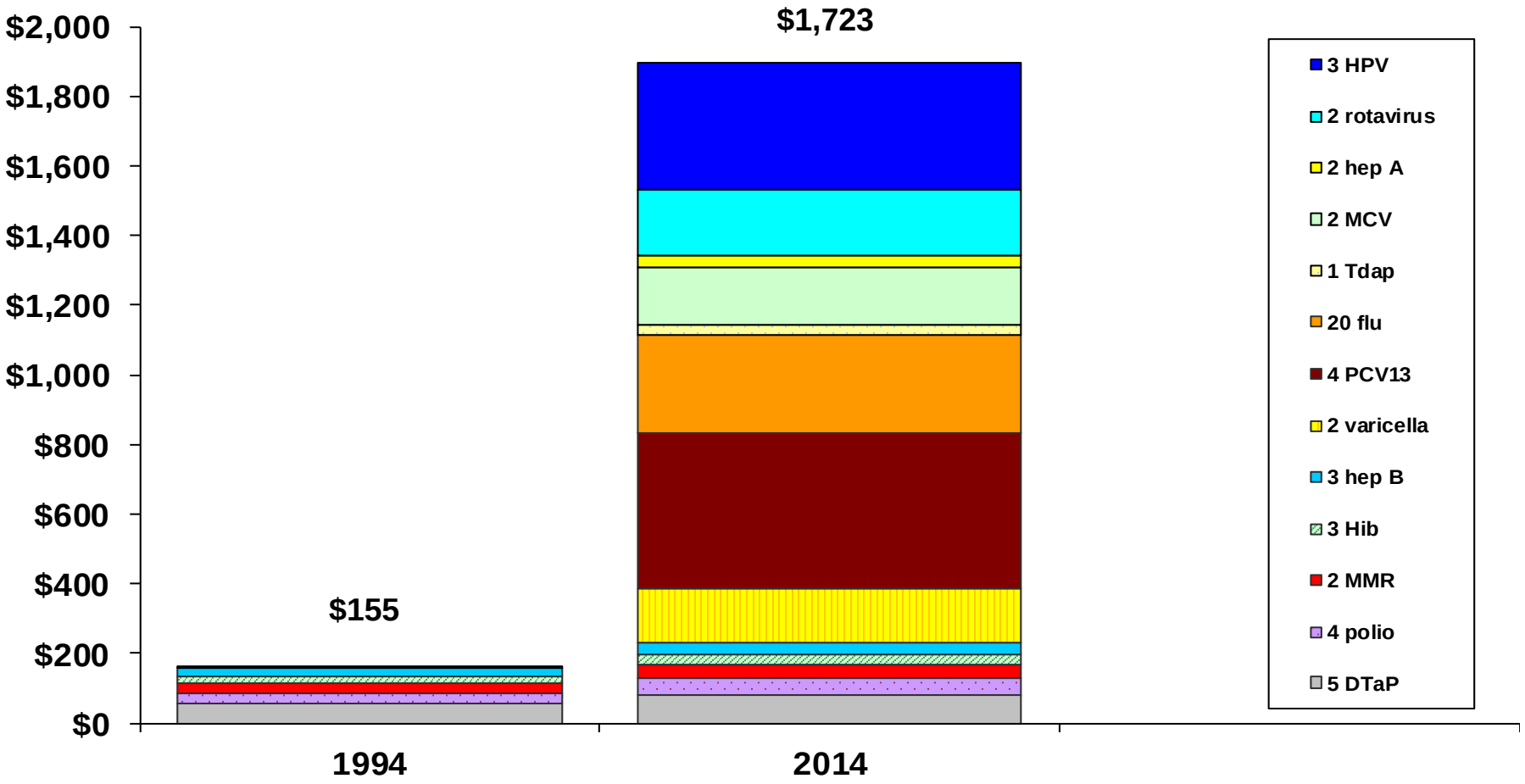
Vaccine Tracking and Documentation-1994

- Tracking
  - Pen/paper (Big Chief Notebooks)
  - Shot records with vaccine stamps
  - Lots of colored highlighters
- Documentation
  - Limited required consent
  - School vaccination records limited
  - No daycare vaccination requirements
  - More special recommendations than general recommendations
  - Few healthcare worker immunization recommendations

2014

- Vaccine delivery within hours/1 day
- Active response to disasters and VPD outbreaks
- Automated vaccine ordering systems
- Automated vaccine tracking systems
- EMR and IIS for data storing and transferring
- Billing systems
- Many vaccine storage, handling and transportation improvements
- Many vaccine recommendations and requirements (daycare, school, workplace, etc.)

Increase in Pediatric and Adolescent Vaccines, Doses, and Cost of Products: 1994 and 2014



2014 represents minimum cost to vaccinate a child (birth through 18); exceptions are 1) no preservative pediatric influenza vaccine, and 2) HPV for males and females.

Vaccines Added To Immunization Schedule For General Recommendations

- Pediatric Vaccine
  - Pertussis (1914)
  - Diphtheria (1926)
  - Tetanus (1938)

  DTP (1948)
  DTaP (1997)

  - Polio (OPV-1955) and (IPV-2000)
  - Measles (1963)
  - Mumps (1967)
  - Rubella (1969)
  - Hib (infant)- (1989)
  - Hepatitis B- (1991)
  - Varicella (1996)
  - Pneumococcal Conjugate (2001)
  - Pneumococcal Polysaccharide (2002)
  - Influenza (2002)
  - Hepatitis A (2006)
  - Rotavirus (1998-1999)
- Adolescent Vaccine
  - Tdap (2006)
  - Meningococcal (2005)
  - HPV (2011)

First Annual Pediatric Schedule: 1994
First Adult Immunization Schedule: 2002
First Catch-up Pediatric Schedule: 2003
First Separate Adolescent Schedule: 2007
First Catch-up Adolescent Schedule: 2007

Number of Vaccines in the Routine Childhood Schedule

- 1985 to 1994 (7)
  - Measles
  - Rubella
  - Mumps
  - Diphtheria
  - Tetanus
  - Pertussis
  - Polio

- 1995 (10)
  - Measles
  - Rubella
  - Mumps
  - Diphtheria
  - Tetanus
  - Pertussis
  - Polio
  - Hib (infant)
  - Hepatitis B
  - Varicella

1995- First year an annual harmonized immunization schedule approved by ACIP, AAP, and AAFP was published annually

1994 Childhood Schedule

TABLE 3. Recommended schedule for routine active vaccination of infants and children*

Vaccine	At birth (before hospital discharge)	1–2 months	2 months†	4 months	6 months	6–18 months	12–15 months	15 months	4–6 years (before school entry)
Diphtheria-tetanus-pertussis§			DTP	DTP	DTP			DTaP/DTP¶	DTaP/DTP
Polio, live oral			OPV	OPV	OPV**				OPV
Measles-mumps-rubella							MMR		MMR††
Haemophilus influenzae type b conjugate									
HbOC/PRP-T §,§§			Hib	Hib	Hib		Hib¶¶		
PRP-OMP§§			Hib	Hib			Hib¶¶		
Hepatitis B***									
Option 1	HepB	HepB†††				HepB†††			
Option 2		HepB†††		HepB†††		HepB†††			

*See Table 4 for the recommended immunization schedule for infants and children up to their seventh birthday who do not begin the vaccination series at the recommended times or who are >1 month behind in the immunization schedule.

† Can be administered as early as 6 weeks of age.

§ Two DTP and Hib combination vaccines are available (DTP/HbOC [TETRAMUNE™]; and PRP-T [ActHIB™, OmniHIB™] which can be reconstituted with DTP vaccine produced by Connaught).

¶ This dose of DTP can be administered as early as 12 months of age provided that the interval since the previous dose of DTP is at least 6 months. *Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP) is currently recommended only for use as the fourth and/or fifth doses of the DTP series among children aged 15 months through 6 years (before the seventh birthday).* Some experts prefer to administer these vaccines at 18 months of age.

** The American Academy of Pediatrics (AAP) recommends this dose of vaccine at 6–18 months of age.

†† The AAP recommends that two doses of MMR should be administered by 12 years of age with the second dose being administered preferentially at entry to middle school or junior high school.

§§ HbOC: [HibTITER®] (Lederle Praxis). PRP-T: [ActHIB™, OmniHIB™] (Pasteur Merieux). PRP-OMP: [PedvaxHIB®] (Merck, Sharp, and Dohme). A DTP/Hib combination vaccine can be used in place of HbOC/PRP-T.

¶¶ After the primary infant Hib conjugate vaccine series is completed, any of the licensed Hib conjugate vaccines may be used as a booster dose at age 12–15 months.

*** For use among infants born to HBsAg-negative mothers. The first dose should be administered during the newborn period, preferably before hospital discharge, but no later than age 2 months. Premature infants of HBsAg-negative mothers should receive the first dose of the hepatitis B vaccine series at the time of hospital discharge or when the other routine childhood vaccines are initiated. (All infants born to HBsAg-positive mothers should receive immunoprophylaxis for hepatitis B as soon as possible after birth.)

††† Hepatitis B vaccine can be administered simultaneously at the same visit with DTP (or DTaP), OPV, Hib, and/or MMR.

1994 childhood immunization schedule

Number of Vaccines in the Routine Childhood Schedule

- 2001 (12)
  - Measles
  - Rubella
  - Mumps
  - Diphtheria
  - Tetanus
  - Pertussis
  - Polio
  - Hib (infant)
  - Hepatitis B
  - Varicella
  - Hepatitis A
  - Pneumococcal Conjugate
- 2006 (15)
  - Measles
  - Rubella
  - Mumps
  - Diphtheria
  - Tetanus
  - Pertussis
  - Polio
  - Hib (infant)
  - Hepatitis B
  - Varicella
  - Pneumococcal Disease
  - Influenza
  - Hepatitis A
  - Meningococcal
  - Rotavirus
- 2011 (16) and current
  - Measles
  - Rubella
  - Mumps
  - Diphtheria
  - Tetanus
  - Pertussis
  - Polio
  - Hib (infant)
  - Hepatitis B
  - Varicella
  - Pneumococcal Disease
  - Influenza
  - Hepatitis A
  - Meningococcal
  - Rotavirus
  - HPV

2014 Recommended Immunization Schedule

Figure 1. Recommended Immunization schedule for persons aged 0 through 18 years – United States, 2014.
(FOR THOSE WHO FALL BEHIND OR START LATE, SEE THE CATCH-UP SCHEDULE [FIGURE 2]).

These recommendations must be read with the footnotes that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the green bars in Figure 1. To determine minimum intervals between doses, see the catch-up schedule (Figure 2). School entry and adolescent vaccine age groups are in bold.

Vaccine	Birth	1 mo	2 mos	4 mos	6 mos	9 mos	12 mos	15 mos	18 mos	19–23 mos	2-3 yrs	4-6 yrs	7-10 yrs	11-12 yrs	13–15 yrs	16–18 yrs
Hepatitis B[1] (HepB)	1st dose	←2nd dose→			←3rd dose→											
Rotavirus[2] (RV) RV1 (2-dose series); RV5 (3-dose series)			1st dose	2nd dose	See footnote 2											
Diphtheria, tetanus, & acellular pertussis[3] (DTaP: <7 yrs)			1st dose	2nd dose	3rd dose			←4th dose→				5th dose				
Tetanus, diphtheria, & acellular pertussis[4] (Tdap: ≥7 yrs)														(Tdap)		
Haemophilus influenzae type b[5] (Hib)			1st dose	2nd dose	See footnote 5		←3rd or 4th dose See footnote 5→									
Pneumococcal conjugate[6] (PCV13)			1st dose	2nd dose	3rd dose		←4th dose→									
Pneumococcal polysaccharide[6] (PPSV23)																
Inactivated poliovirus[7] (IPV) (<18 yrs)			1st dose	2nd dose	←3rd dose→							4th dose				
Influenza[8] (IIV; LAIV) 2 doses for some: See footnote 8					Annual vaccination (IIV only)						Annual vaccination (IIV or LAIV)					
Measles, mumps, rubella[9] (MMR)							←1st dose→					2nd dose				
Varicella[10] (VAR)							←1st dose→					2nd dose				
Hepatitis A[11] (HepA)							←2-dose series, See footnote 11→									
Human papillomavirus[12] (HPV2: females only; HPV4: males and females)														(3-dose series)		
Meningococcal[13] (Hib-MenCY ≥ 6 weeks; MenACWY-D ≥9 mos; MenACWY-CRM ≥ 2 mos)			See footnote 13											1st dose		Booster

Range of recommended ages for all children

Range of recommended ages for catch-up immunization

Range of recommended ages for certain high-risk groups

Range of recommended ages during which catch-up is encouraged and for certain high-risk groups

Not routinely recommended

This schedule includes recommendations in effect as of January 1, 2014. Any dose not administered at the recommended age should be administered at a subsequent visit, when indicated and feasible. The use of a combination vaccine generally is preferred over separate injections of its equivalent component vaccines. Vaccination providers should consult the relevant Advisory Committee on Immunization Practices (ACIP) statement for detailed recommendations, available online at http://www.cdc.gov/vaccines/hcp/acip-recs/index.html. Clinically significant adverse events that follow vaccination should be reported to the Vaccine Adverse Event Reporting System (VAERS) online (http://www.vaers.hhs.gov) or by telephone (800-822-7967). Suspected cases of vaccine-preventable diseases should be reported to the state or local health department. Additional information, including precautions and contraindications for vaccination, is available from CDC online (http://www.cdc.gov/vaccines/recs/vac-admin/contraindications.htm) or by telephone (800-CDC-INFO [800-232-4636]).

This schedule is approved by the Advisory Committee on Immunization Practices (http://www.cdc.gov/vaccines/acip), the American Academy of Pediatrics (http://www.aap.org), the American Academy of Family Physicians (http://www.aafp.org), and the American College of Obstetricians and Gynecologists (http://www.acog.org).

NOTE: The above recommendations must be read along with the footnotes of this schedule.

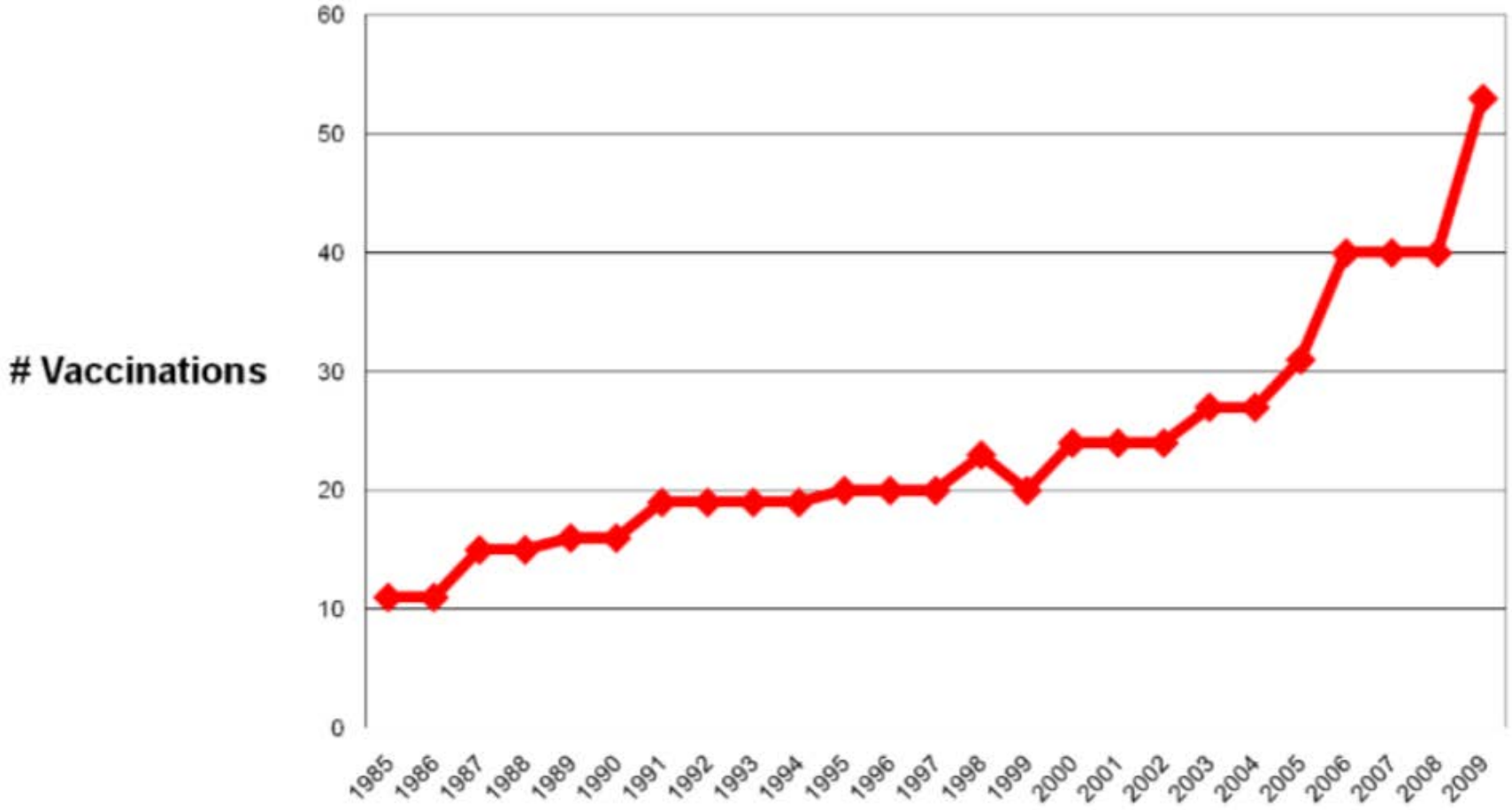
Number of Vaccinations

1995 (19)

2014 (up to 55)

- **Does not include recent combination vaccines**
- **Nasal injections are an option for flu vaccine**

Number of Recommended Vaccinations Per Child, 1985 to 2011*

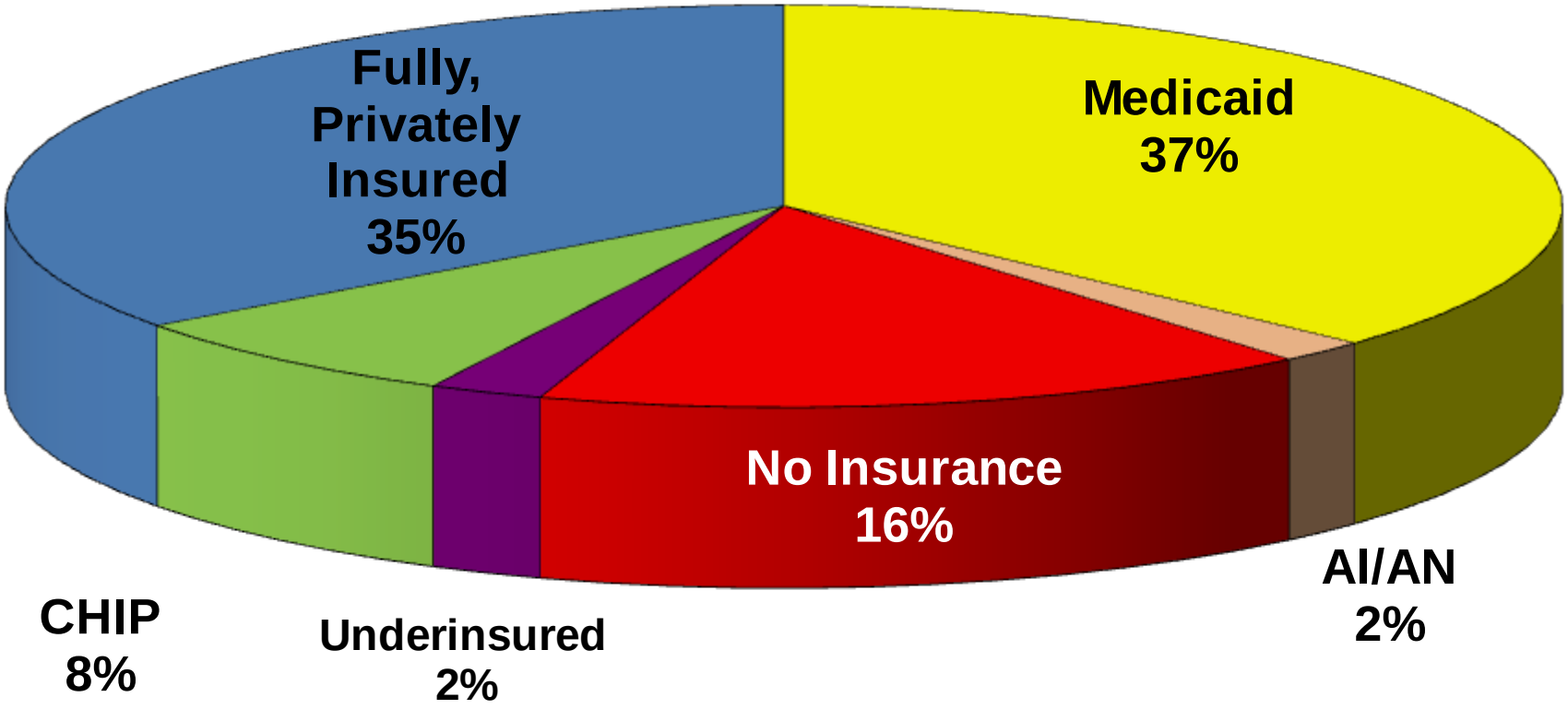


*** Does not include recent combination vaccines**

Texas PES- 2015 (Children 0-18 years)

TEXAS 2015 POPULATION ESTIMATES	TOTALS	%
Total Grantee Population	**7,721,410**	
1. The number of children enrolled in the Medicaid	2,851,373	36.93%
2. The number of American Indians/Alaska Natives	143,420	1.86%
3. The number of children without health insurance	1,256,462	16.27%
Underinsured and VFC Eligible		
4. Federally Qualified Health Centers.	49,549	0.64%
5. Delegated Authority	7,716	0.10%
Sub-total VFC Eligible	**4,308,522**	**55.80%**
6. The number of children underinsured in private sector	**125,269**	1.62%
7. The number of children with CHIP	**574,866**	7.45%
8. Privately Insured	**2,712,753**	35.13%
Sub-total NON-VFC Eligible	**3,412,888**	**44.20%**

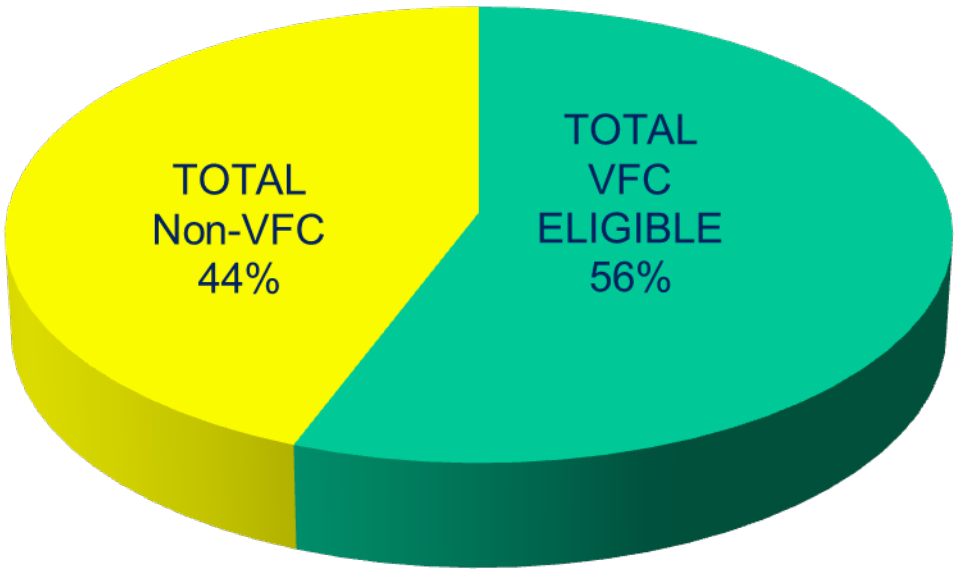
Texas Population Estimates – 2015



Total Population (0-18): 7,721,410

Texas Childhood Population – 2015

(ages 0-18 years)



VFC Eligible:

- Medicaid-eligible
- Uninsured
- American Indian/ Alaska Native
- Underinsured
  - has commercial (private) health insurance but coverage does not include vaccines; insurance covers only selected vaccines (VFC-eligible for non-covered vaccines only), or vaccine coverage is capped at a certain amount (VFC eligible after cap is reached).

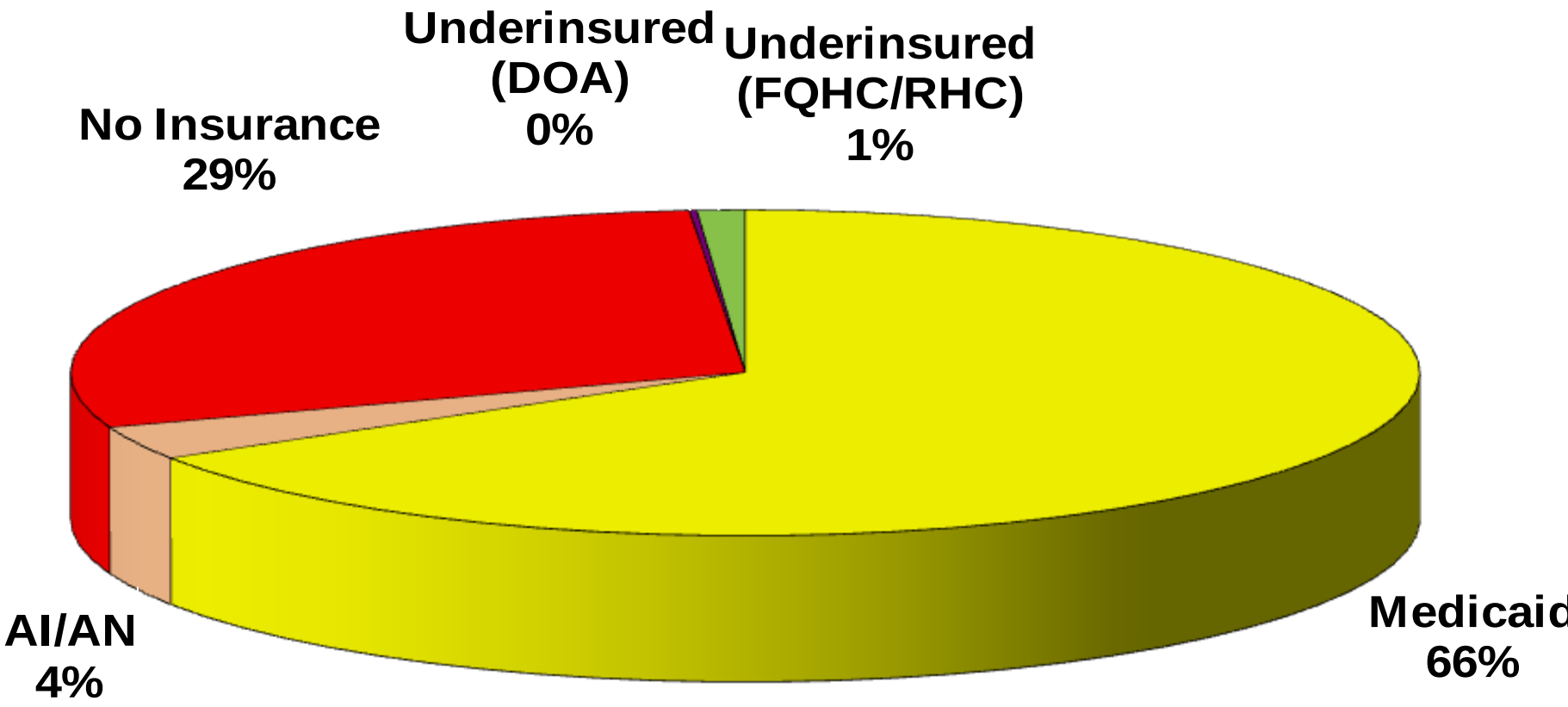
Non-VFC Eligible:

- Insured
- CHIP
- Underinsured in private sites

Total Population (0-18): 7,721,410

VFC Eligible Population – 2015

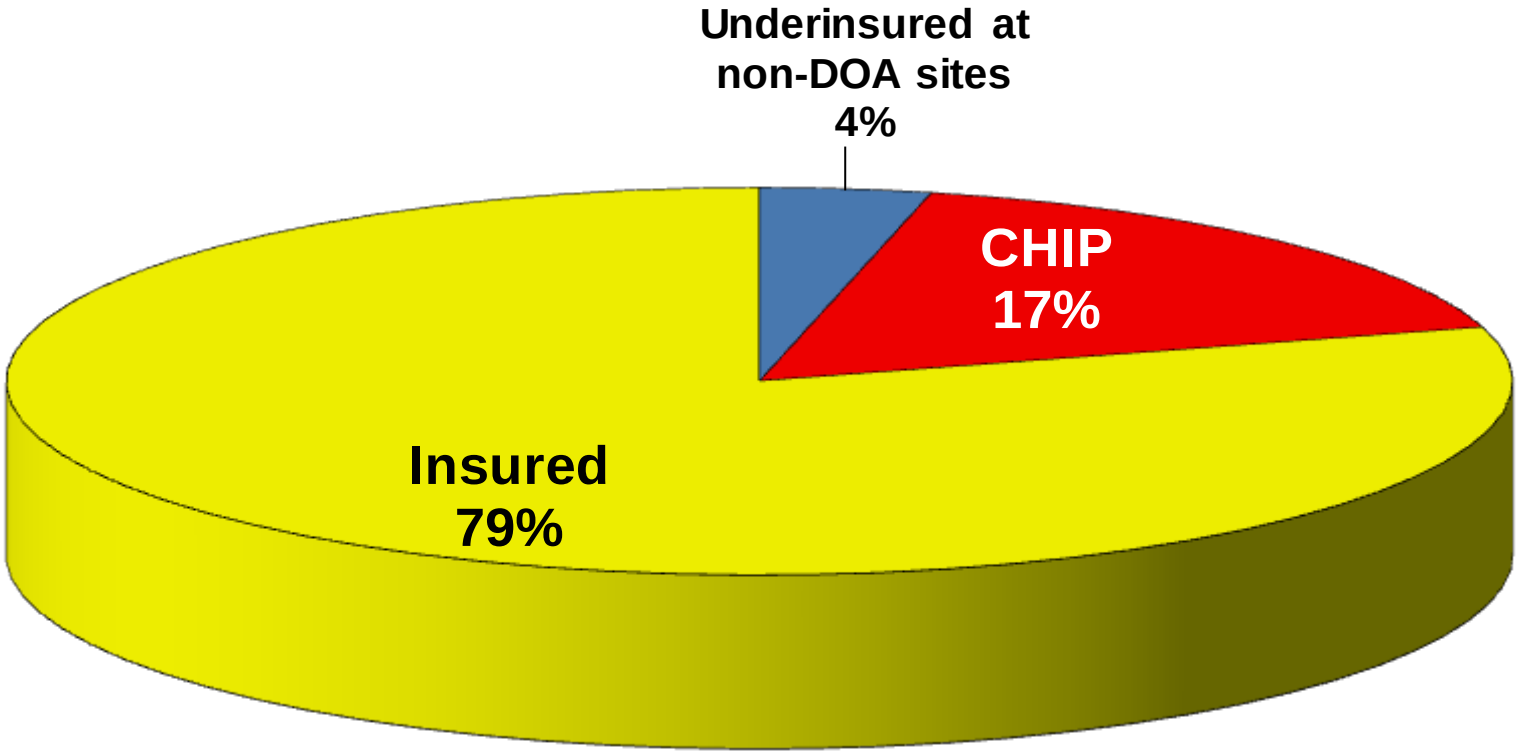
(covered by Federal VFC vaccine funds)



Texas Vaccines For Children Population: 4,308,522

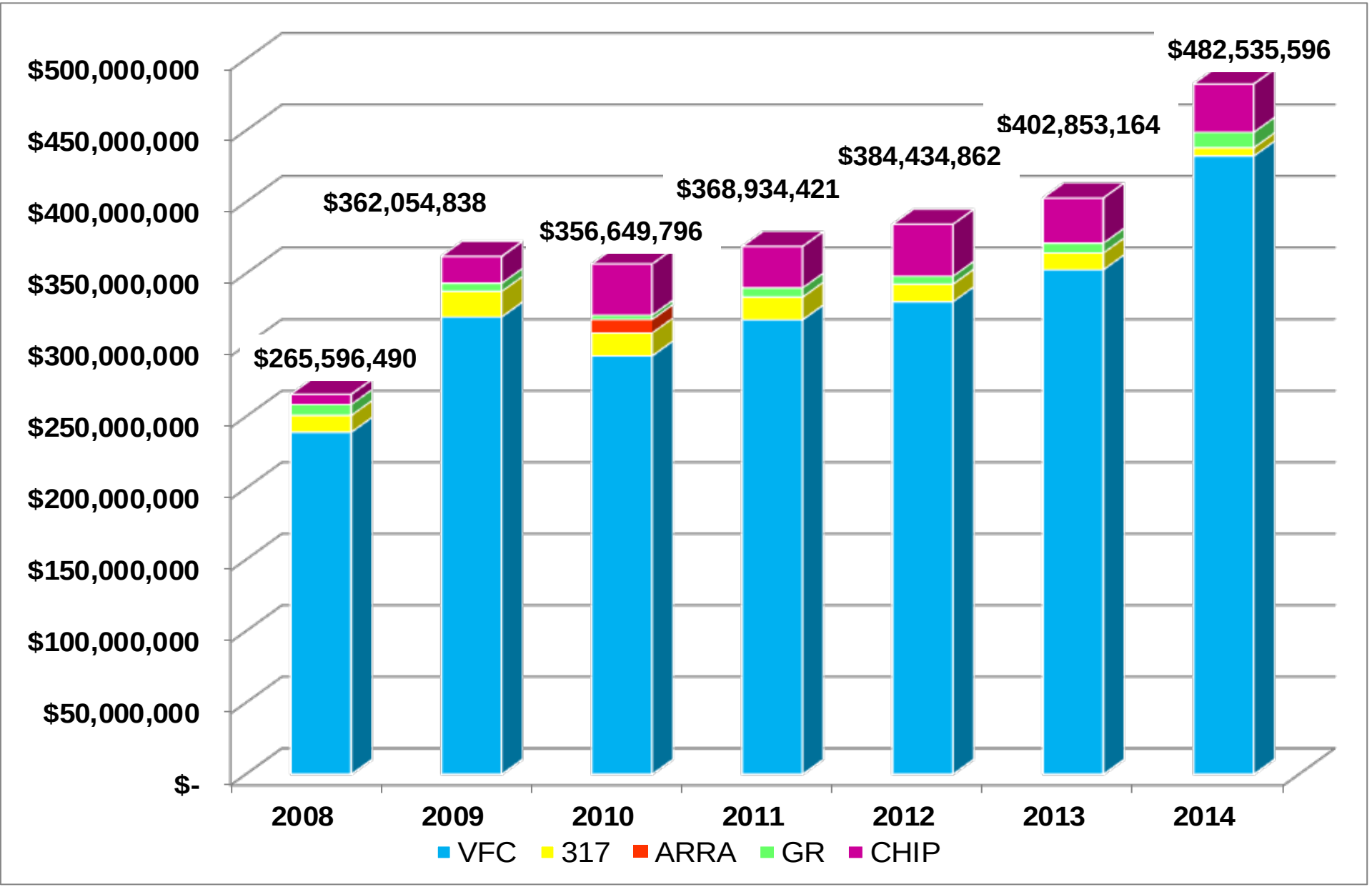
Non-VFC Eligible Population – 2015

(covered by Federal Section 317, State GR and CHIP vaccine funds)



Texas Non-VFC Population: 3,412,888

Total Vaccine Purchases in Texas 2008-2014*



*2014 estimates based on Texas Cost and Affordability Tool (CAT)

Federal Vaccine Funds

Federal Vaccine Funds:

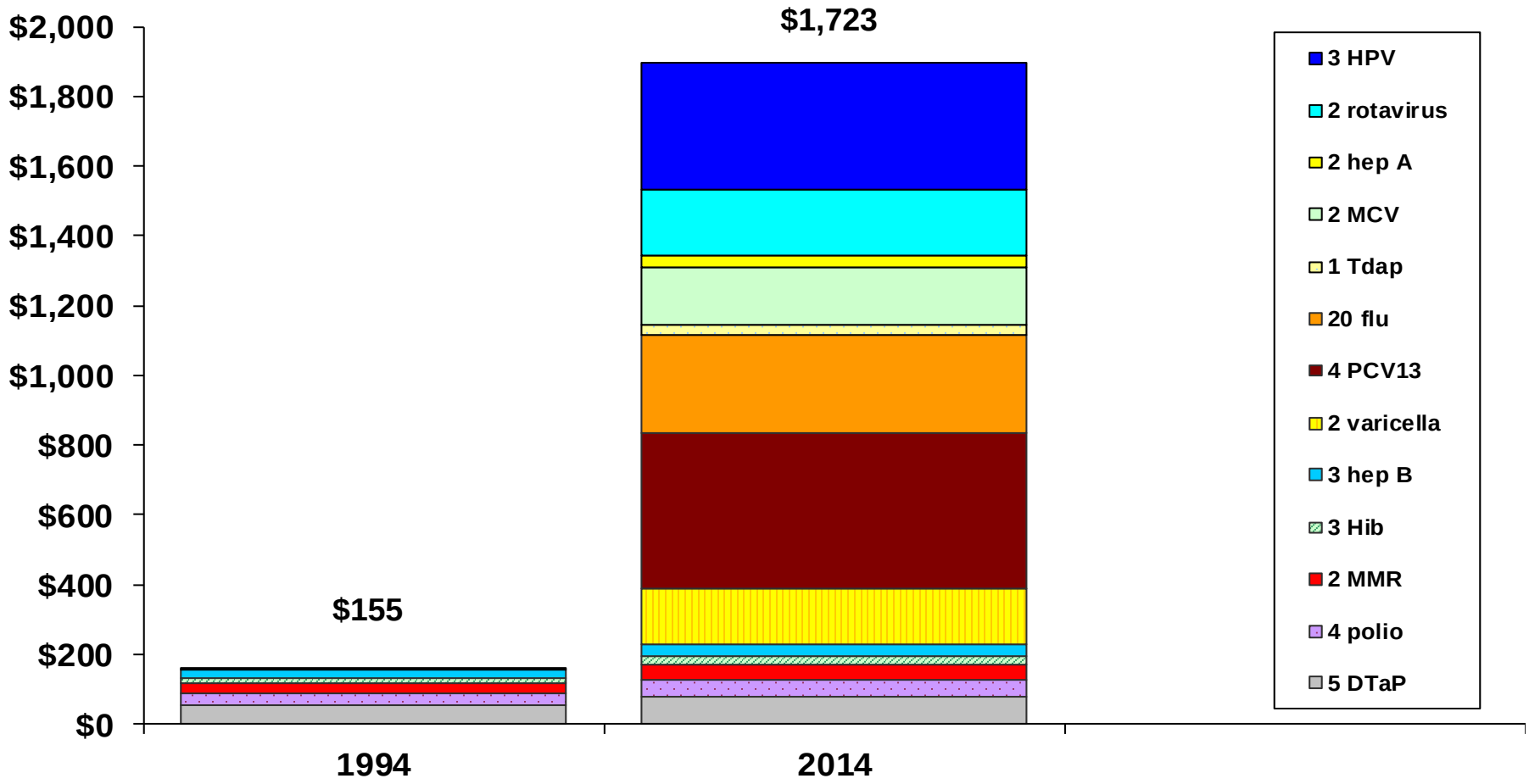
- VFC- Entitlement vaccine for eligible children (0-18)
- 317 FA- (Financial Assistance) Vaccines not available on the federal contract (Td, DT)
- 317 DA- (Direct Assistance) Vaccines to cover non-VFC eligible children and adults
  - Funds Underinsured Children in the private sector
  - Funds Adult Immunizations through ASN Program

STATE (GR) Vaccine Funds

5 Vaccine Funding Sources with General Revenue

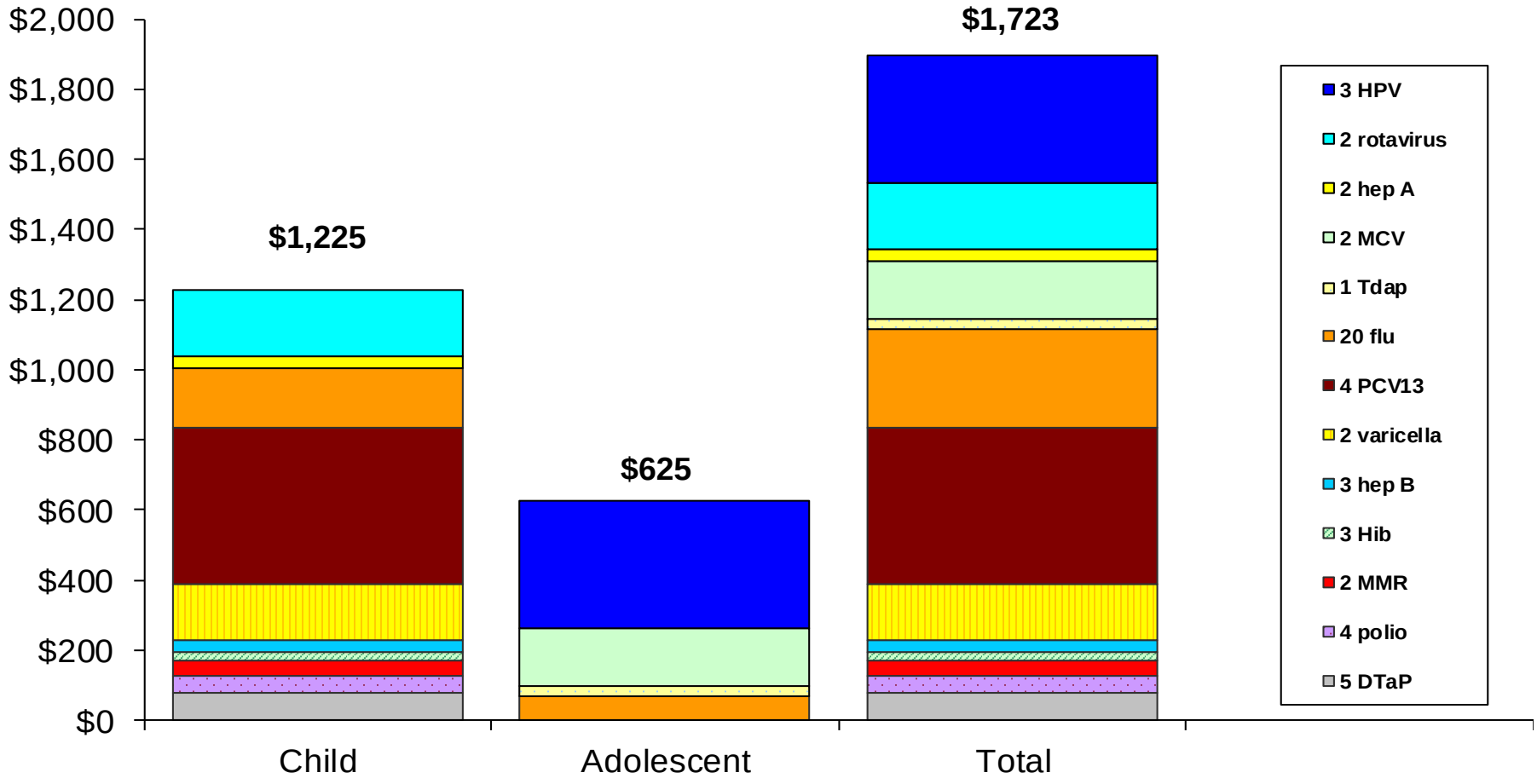
- GR Vaccines through appropriations
- Medicare funds (from vaccine fees collected in the DSHS- 008)
- Medicaid funds (from vaccine fees collected by DSHS- 080)
- Insurance Funds (appropriated funds for purchase of specific childhood vaccines- 136)
- CHIP Vaccine Reimbursement Funds (055)

Increase in Pediatric and Adolescent Vaccines, Doses, and Cost of Products: 1994 to 2014



2014 represents minimum cost to vaccinate a child (birth through 18); exceptions are 1) no preservative pediatric influenza vaccine, and 2) HPV for males and females.

Cost To Vaccinate a Child (0-10) and Adolescent (11-18)- 2014



2014 represents minimum cost to vaccinate a child (birth through 18); exceptions are 1) no preservative pediatric influenza vaccine, and 2) HPV for males and females.

Federal contract prices as of February 1, 1990, September 27, 2000, and May 1, 2014.

Texas VFC in 2014

- Expand DSHS Vaccine Services Group
  - Vaccine Operations Group (Barbara Vassell)
    - Quality Assurance (PEAR) and Site Visits
    - TVFC and ASN Provider Recruitment
    - TVFC and ASN Program Policy/Procedures
    - Adult Safety Net (ASN) Program
  - Vaccine Management Group (Kelly Patson)
    - Vaccine Call Center
    - Vaccine Ordering and doses administered
    - Vaccine Accounting/Finance
    - Annual Influenza Program
- Both Groups work with ImmTrac Replacement

Texas VFC in 2014

- Commit additional resources to vaccines storage and monitoring
  - Data loggers
- Expand Texas QA Site Visits
  - Apply ACIP recommendations to all provider immunization record assessments (CoCASA)
- Expand number of VFC unannounced site-visits
- Continue emphasis on storage and handling
- Continue emphasis on eligibility screening
- Continue requirement for VFC Providers to complete CDC required trainings

Texas VFC in 2014

- Reach out to our VFC Provider network
  - Recruit additional VFC providers (+9,000 packets going out 10/2014)
  - More customer service focused
  - Ensure providers have tools (vaccine, resources, trainings, etc.) to be successful
- Launch ‘new’ TVFC Provider (10/2014) and Operations (12/2014) manuals
- Release results of TVFC Provider Satisfaction Survey
- Adult Safety Net (ASN) Program Expansion

Texas VFC Program in 2015

TEXAS
Department of
State Health Services

VACCINES
Build your child's health

Texas VFC in 2015

- Achieve 100% provider re-enrollment by 3/31/2015
- Continue requirement for VFC Providers to complete CDC required trainings
- Release guidance documents on how to train a provider to become a TVFC Provider
- Increase marketing of TVFC and ASN Program to potential individual or group providers/practices
- Continue emphasis and trainings on vaccine storage and handling
- Continue emphasis and trainings on eligibility screening

Texas VFC in 2015

- Conduct site visits on over 90% of all TVFC and ASN provider sites
- Increase the number of unannounced provider visits by more than 25% (what gets measured….)
- Launch ImmTrac2 and new vaccine ordering and reporting systems for all providers
- Increase CDC National Immunization Survey coverage levels of Texas' infants, children, and adults
- Ensure all TVFC eligible children have access to VFC vaccines at each ACIP recommended age

Texas VFC in 2015

- Continue to commit additional resources to vaccines storage and monitoring
  - Required thermometers
  - Data loggers
- Explore Additional Vaccine Choice Options
  - Consideration to lifting the ability of provider's to only add vaccines on a quarterly basis
  - In combination with launch of ImmTrac2
- Continue expansion of ASN Program
  - Consider additional site types
  - Assist with providers who wish to serve and bill privately insured adults

DSHS Strategies to Increase Immunization Rates

- Promoting the Medical Home
- Systematic, methodical understanding of and development and implementation for provider, public, and parent education
- Increasing access points of TVFC and Adult vaccinations
- Promoting the Use of the Statewide Immunization Registry and Disaster Preparedness Tracking and Reporting System, ImmTrac

DSHS Strategies to Increase Immunization Rates

- Customized approach for each Health Service Region
  - Rates assessment by vaccine antigen type
  - Demographic assessment
  - Leveraging learning from one HSR to another
- Advocating for Public/Private Partnerships, as appropriate