

CAT: Absorbing 317 Budget Cuts in Tennessee Health Departments (HDs)

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AIM – CDC Program Managers Meeting

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Outline

- **Cost Accountability Tool (CAT) Challenges**
- **Reality check**
 - Biggest expenditures, highest priorities?
- **Fitting into the budget**
 - Narrow priorities, new policies
 - IT and coding changes
- **Implementing change**
 - Engaging the right people
 - Conference calls, training documents
 - Inform the public
- **Following up**

The good ole days: BC (Before CAT)

- **TN HDs deputized by FQHC in 2007**
 - Fellow public health clinics were FQHCs, simple process
- **317: no child turned away at HD (except HPV)**
- **TN used 317 for adults, such as:**
 - New college students needing MMR (required by TDH)
 - Susceptible adults needing VZV (uninsured)
 - Any adult needing a tetanus-containing vaccine
 - Hepatitis B vaccine: STD patients, at-risk contacts of cases
 - Outbreak response
- **(the bad) No State \$ for childhood vaccines**

Our Highest Priorities

- **No missed opportunity under age 0-6 years**
- **No barriers to access to education:**
 - **Vaccines required for school entry (7th grade, Tdap and 2nd VZV)**
 - **Adults needing to meet college entry requirements**
- **Other uninsured adults, especially those with infants (Tdap)**
- **Post-exposure prophylaxis / hep B contacts**

CAT Troubles:

CDC's CAT estimates did not correlate with our data on patients served in HDs.

Age Group	2012 Total Pop <i>(1)</i>	% Non-VFC Pop in 2011 <i>(2)</i>	# Non-VFC Pop in 2012	Fully, privately insured, and administered doses at a Health Department Clinic (HDC) ⁽³⁾
<1	85,091	41.8%	35,607	5.9%
1-2	173,675	43.9%	76,237	6.2%
3-6	333,271	44.8%	149,386	6.3%
7-18	998,452	55.8%	557,538	24.5% ???!

CAT Troubles, continued

- **Estimates presumed full immunization of non-VFC children seen in a health department if any provided**
- **TN data: 69% of children vaccinated in HDs also immunized at private offices**
- **CDC had no estimates of services to adults**
 - **Eligibility criteria in HD clinics vary by vaccine**
 - **Our planning goal for 317 is to serve as many as possible, not reserve \$ that will not be used**

Our Planning Estimates:

317 Doses Administered in Previous Year

- **TN HDs use single patient tracking billing management information system (PTBMIS)**
 - **Old system, used multiple 3 letter codes for vaccines (not standardized)**
- **VFC eligibility coded for each visit if <19y**
 - **Only ineligible code is VFC= 01: “fully insured, insurance covers immunizations”**
- **317 doses used in previous 12 months approx.**
317 vaccine demand under existing policy

TN Data: Adults

					Adult	Pediatric				
Total 317 vaccine adults and children 6/1/2010 to 5/31/2011:					\$5,206,666.00	\$2,264,443.55	\$2,942,223.00	Over/Under 2012 Budget		
Total 317 budget for 2012 fiscal year, beginning October 1, 2011					\$3,425,718.00	\$861,778.00	\$2,562,965	\$974.83		
Difference					-\$1,780,948.00					
Adults: PTBMIS doses given to patients age 19 and up 6/1/2010 through 5/31/2011					Adults: Projected doses with revised policy. Basic rule, outbreak control vaccines (given to contacts of cases) given without regard to insurance status; other vaccines given to uninsured only.					
Vaccine	Price	Policy	Number of Doses	Cost	Changes eff. Oct 1, 2011	Vaccine	Price	Policy	Projected # of Doses	Cost
HepA	\$21.59	Outbreak/medical need (liver dz)	3,218	\$69,476.62		Hepatitis A	\$21.59	Outbreak, uninsured primary care with chronic liver dz	1000	\$21,590.00
HepB	\$28.00	STD patients, contacts of cases	13,115	\$367,220.00		Hepatitis B	\$28.00	Contact of case, uninsured primary care HD pts with chronic non-B liver dz	2,500	\$70,000.00
MMR	\$33.61	Susceptible female, College entry need, regardless of insurance	12,789	\$429,838.29		MMR	\$33.61	Uninsured and needing for college	7000	\$235,270.00
PPV23	\$19.65	High risk younger adults 19-64	6,725	\$132,146.25		PPV 23	\$19.65	Not offered	0	\$0.00
Tdap	\$26.25	if indicated, regardless of insurance status	43,951	\$1,153,713.75		Tdap	\$26.25	Unvaccinated contacts of pertussis cases; uninsured needing tetanus booster for wound; uninsured household contact of infant <1 year.	15,000	\$393,750.00
VAR	\$55.36	Susceptible contact of case, uninsured susceptible adults	2,024	\$112,048.64		Varicella	\$55.36	Susceptible contact of case, uninsured susceptible adults-no change	2,550	\$141,168.00
Total			81,822	\$2,264,443.55		Total			28,050	\$861,778.00

Green = Current use

Orange = Projected under new policy

Childhood vaccine: actual 317 use from PTBMIS

Most money spent on PCV13 and VZV (new school requirement, 2010)

CHILDREN: _____
 Non-VFC Patients Ages 18 and Under - Immunizations Given 06-01-2010 thru 05-31-2011 (dose counts for 7-18 years only are shown - the grand totals are correct and include doses given to younger ages).

Vaccine	Vaccine_Desc	<1	1-2	3-6	7-18	Grand Total	Cost per dose	Total Cost	Percent of total
CPX	CHICKEN POX (VARICELLA)				5,515	9,991	69.73	\$696,672	★ 23.68%
DHI	DTAP, HEP.B, IPV COMBINATION					848	51.15	\$43,375	1.47%
DHV	DTAP-HIB-IPV VACCINE					3,346	52.55	\$175,832	5.98%
DTA	DTAP					2,905	14.85	\$43,139	1.47%
DTH	DTAP + HIB					55	29.5	\$1,623	0.06%
DTI	DTAP + IPV					1,545	34.25	\$52,916	1.80%
FLB	INFLUENZA VACCINE 6-35 MONTHS					910	11.68	\$10,629	0.36%
FLC	INFLUENZA, 3 - 18 YEARS OLD				1,612	2,527	9.3	\$23,501	0.80%
FLM	INTRANASAL FLU VACCINE DONATED				693	2,080	15.7	\$32,656	1.11%
FLU	INFLUENZA VACCINE, 19 AND OVER				623	2,523	9.3	\$23,464	0.80%
HAS	HEPATITIS A,PED./ADOLE 2 DOSE				→ 5,087	11,389	14.25	\$162,293	→ 5.52%
HBV	HEPATITIS B VACCINE (0 TO 19)				388	3,103	10.5	\$32,582	1.11%
HHB	HIB & HEPATITIS B COMB.(COMVAX					12	29.5	\$354	0.01%
HI3	HAEMOPHILUS INF B (3 DOSE)					569	11.64	\$6,623	0.23%
HI4	HAEMOPHILUS INF B (4 DOSE)					1,283	9	\$11,547	0.39%
HIB	HAEMOPHILUS INF B					728	11.64	\$8,474	0.29%
HIX	HAEMOPHILUS B CONJ. (HIBERIX)					206	8.98	\$1,850	0.06%
IPV	INACTIVE POLIO VACCINE				364	1,934	11.97	\$23,150	0.79%
MC4	MENINGOCOCCAL CONJ. VACC VFC				→ 3,350	4,226	82.12	\$347,039	→ 11.79%
MMR	ME, MU, RUB				420	5,199	18.99	\$98,729	3.36%
P13	PNE CONJ. VACC. 13 VALENT				16	7,828	97.21	\$760,960	★ 25.86%
PPS	PNEUMOCOCCAL POLY (PPSV)				6	23	34.54	\$794	0.03%
RTA	ROTAVIRUS (ROTATEQ)					2,647	59.76	\$158,185	5.38%
RV1	ROTAVIRUS (ROTARIX) 2 DOSE					341	89.25	\$30,434	1.03%
TD	TETANUS-DIPHThERIA				132	132	16.5	\$2,178	0.07%
TDP	TET/DIPHT/ACELL.PERT. ADULT				6,511	6,530	29.59	\$193,223	6.57%
Grand Total		14,261	14,582	17,123	29,845	75,811		\$2,942,223	

Policy: No change 0-6 years

Limit to school requirements only 7-18 years

Changes in Pediatric Vaccine Policy Effective October 1, 2011: No change for 0-6 years; fully insured 7-18 year olds referred elsewhere for vaccines not required for school in TN.

Vaccine	Vaccine_Desc	<1	1-2	3-6	7-18	Grand Total	Cost per dose	Total Cost	Percent of total
CPX	CHICKEN POX (VARICELLA)				5,515	9,991	69.73	\$696,672	27.18%
DHI	DTAP, HEP.B, IPV COMBINATION					848	51.15	\$43,375	1.47%
DHV	DTAP-HIB-IPV VACCINE					3,346	52.55	\$175,832	5.98%
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DTH	DTAP + HIB					55	29.5	\$1,623	0.06%
DTI	DTAP + IPV					1,545	34.25	\$52,916	1.80%
FLB	INFLUENZA VACCINE 6-35 MONTHS					910	11.68	\$10,629	0.36%
FLC	INFLUENZA, 3 - 18 YEARS OLD				0	915	9.3	\$8,510	0.29%
FLM	INTRANASAL FLU VACCINE DONATED				0	1,387	15.7	\$21,776	0.74%
FLU	INFLUENZA VACCINE, 19 AND OVER				0	1,900	9.3	\$17,670	0.60%
HAS	HEPATITIS A, PED./ADOLE 2 DOSE				0	6,302	14.25	\$89,804	3.05%
HBV	HEPATITIS B VACCINE (0 TO 19)				388	3,103	10.5	\$32,582	1.11%
HHB	HIB & HEPATITIS B COMB.(COMVAX)					12	29.5	\$354	0.01%
HI3	HAEMOPHILUS INF B (3 DOSE)					569	11.64	\$6,623	0.23%
HI4	HAEMOPHILUS INF B (4 DOSE)					1,283	9	\$11,547	0.39%
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IPV	INACTIVE POLIO VACCINE				364	1,934	11.97	\$23,150	0.79%
MC4	MENINGOCOCCAL CONJ. VACC VFC				0	876	82.12	\$71,937	2.44%
MMR	ME, MU, RUB				420	5,199	18.99	\$98,729	3.36%
P13	PNE CONJ. VACC. 13 VALENT				16	7,828	97.21	\$760,960	25.86%
PPS	PNEUMOCOCCAL POLY (PPSV)				6	23	34.54	\$794	0.03%
RTA	ROTAVIRUS (ROTATEQ)					2,647	59.76	\$158,185	5.38%
RV1	ROTAVIRUS (ROTARIX) 2 DOSE					341	89.25	\$30,434	1.03%
TD	TETANUS-DIPHThERIA				132	132	16.5	\$2,178	0.07%
TDP	TET/DIPHT/ACELL.PERT. ADULT				6,616	6,530	29.59	\$193,223	6.57%
Grand Total								\$2,562,963	

Proposed policy for VFC-eligible children <19 years continue to get all needed VFC vaccines (TennCare, Uninsured, Native American or Underinsured).

Fully insured children ages 0-6 years (have private insurance and it covers vaccines) given whatever recommended vaccine they need.

Fully insured children ages 7-18 years: refer out for hepatitis A, HPV, meningococcal, and flu (in 2012-13 season)

Implementation

- **Green light from CDC to proceed**
- **Warning! First notice of pending cuts sent to public health regional clinic leadership on July 17**
- **Time to plan and teach...**
- **Who's with me?**
 - **Nursing, Coding (clerical coordinator), IT, Administration, Physicians, Regional HD champions**
- **IT changes: use CVX numeric codes for federal vaccine**
 - **Not happy to learn new codes, but less likely to err**
 - **Push to assure IT and policy changes both hit on Oct 1**
- **Cheat sheet tables for clerks, conference calls**
 - **First call 9/7/11 (3 more open calls), FAQ sheets, emails**

Implementation

- **Public communication:**
 - Key to encourage those with insurance coverage to go where they can bill insurance
 - We hope to, but TN HDs not there yet
 - Notices to clinicians (VFC Fax, AAP, AAFP, etc.)
 - Posted “Who’s eligible for free vaccine at the health department?” English and Spanish
 - Shared with Department of Education for students
 - School nurses often refer students to HDs
- **Follow up reports to the region**
 - How are you doing with the new policies!?

PTBMIS Monthly 317 Vaccine Reports to Regional HDs

PROCEDURE NAME	CHR	ETR	JMR	KKR	MCR	MSR	NDR	NER	SCR	SER	SUL	UCR	WTR	State TTL
Fed. Measles Mumps Rubella (MMR II)		2	1	1		4	3						2	13
Fed. HEPB (0-19) (Recombivax or Engerix)		4		1		1	6						2	14
Fed. Inactive Polio Vaccine (IPOL)	1	1		1	2	1	2						2	10
Fed. Intranasal Flu (FluMist)		7		29	4		4	3	5	9	1	1	1	64
Fed. Tetanus-Diphtheria (Decavac)		1		1			1							3
Fed. TDAP (Adacel or Boostrix)	1	5		4	3	9	3	3	1	5	1	5	16	56
Fed. Rotavirus (3-Dose) (Rotateq)								1						1
Fed. Bivalent HPV (Cervarix)					1									1
Fed. Meningococcal Vaccine (Mentactra)		3		1	2	2	1		1	2	2	1	2	17
Fed. Flu-preserved free (Any free flu dose)		3					8	1	7				16	35
Fed. Flu-multidose vial	3	8	1		12		10	10	15	4	5	3	8	79
Fed. Varicella (Chickenpox) (Varivax)	5	9	1		10	12	7	3	6	9	4	6	21	93
Fed. Pediatric DT (< 7 YRS)						1								1
Fed. HiB (4-Dose) (ActHiB or Hiberix)	1													1
Fed. HepA (>18) (Vaqta or Havrix)							1							1
Fed. Quadrivalent HPV (Gardasil)	1	5		3		2	11	1	1	2	3	2	2	33
Fed. HEPA (<19) (Vaqta or Havrix)		3	1	4		4	5	1	2	2	2		11	35

Sample: Age 7-18 Statewide Summary, December 2011 data

Not Valid Detail Page

SHOT	PROCEDURE NAME	SITE	PATIENT	AGE	Shelby
08	Fed. HEPB (0-19) (Recombivax or Engerix)	01	0008250119	025	1
08	Fed. HEPB (0-19) (Recombivax or Engerix)	25	0007216685	022	1
08	Fed. HEPB (0-19) (Recombivax or Engerix)	25	0007879363	032	1
08	Fed. HEPB (0-19) (Recombivax or Engerix)	25	0007946270	028	1
08	Fed. HEPB (0-19) (Recombivax or Engerix)	25	0008136245	020	1
08	Fed. HEPB (0-19) (Recombivax or Engerix)	25	0008261087	020	1
28	Fed. Pediatric DT (< 7 YRS)	89	0008261016	014	1

Not_Valid_Detail

Problems: **(1)** Clerk is entering the pediatric HBV code for HBV given to adults (different dosage, different code). **(2)** The code for pediatric DT was used for a shot given to a 14 year old.

Corrections in PTBMIS also update/correct the IMM registry.

Not Approved Detail Page

SHOT	PROCEDURE NAME	SITE	PATIENT	AGE	Shelby
136	Fed. Meningococcal Vaccine (Mentactra)	01	0007637781	013	1
136	Fed. Meningococcal Vaccine (Mentactra)	25	0008262585	013	1
140	Fed. Flu-preserved free (Any free flu dose)	17	0007160828	029	1
140	Fed. Flu-preserved free (Any free flu dose)	83	0008008519	039	1
141	Fed. Flu-multidose vial	25	0007432274	080	1
141	Fed. Flu-multidose vial	25	0007528192	064	1
141	Fed. Flu-multidose vial	25	0007904748	042	1
141	Fed. Flu-multidose vial	25	0008131459	025	1
141	Fed. Flu-multidose vial	25	0008133232	057	1
141	Fed. Flu-multidose vial	25	0008202598	023	1
62	Fed. Quadrivalent HPV (Gardasil)	01	0007334374	019	1
62	Fed. Quadrivalent HPV (Gardasil)	01	0007478328	016	1
62	Fed. Quadrivalent HPV (Gardasil)	01	0008260328	012	1

[Not Approved Detail](#)

Problems: **(1)** Clerk coded federal vaccines given to teens (MCV and HPV) who had been coded as fully insured (were they in fact underinsured?). **(2)** One HPV to a 19 year old, never approved. **(3)** Federal flu vaccine was given to adults – which is never approved (likely coding error – state vaccine given for free in December).

Conclusions

- **CAT v.1 insufficiently granular to be binding**
 - Cannot account for detailed policy, fluid demand
 - Direct measures of use have worked for TN
- **Team with Administration, IT, Clerical, Nursing, Medical and Communications**
 - Share the problems and solutions
- **Regular feedback reinforces, corrects errors**
- **State clinics better prepared to cope with FY2013 policy changes**

Thank you!

- **Deborah Hardin, RN (State Director of Nursing)**
- **John Hutcheson (IT)**
- **Charlie Murff (IT)**
- **Michael Creighton (IT)**
- **Brian Moore (Registry Unit Director)**
- **Catherine Haralson, RN (IZ Program Manager)**
- **Anne Talbott (Imm Data Analyst, epi)**
- **Shirley Gore (PTBMIS)**
- **Pam Baggett (TennCare services, insurance issues)**
- **Andrea Shanks (State Clerical Coordinator)**
- **Regional Directors of Nursing, Clerical Coordinators**