

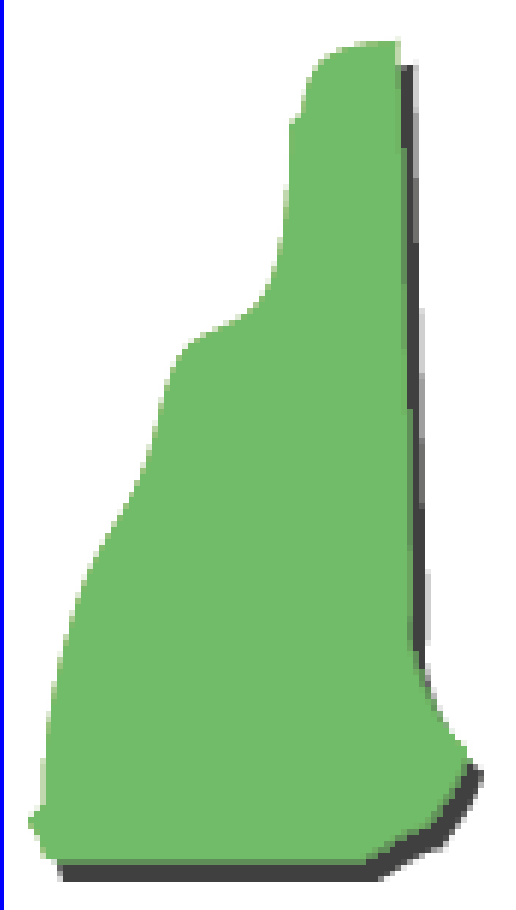


EMS Electronic Documentation: A Success Story

**Friedrich von Recklinghausen MPA, PhD, FRSPH
Dartmouth-Hitchcock Medical Center
Dartmouth School of Medicine
New Hampshire**



New Hampshire is not New Jersey



Does EMS Work?

- **Do we take good care of our patients?**
- **Do the medications we give them work?**
- **Do EMS procedures work?**

TEMSIS

- Trauma and
- Emergency
- Medical
- Services
- Information
- System



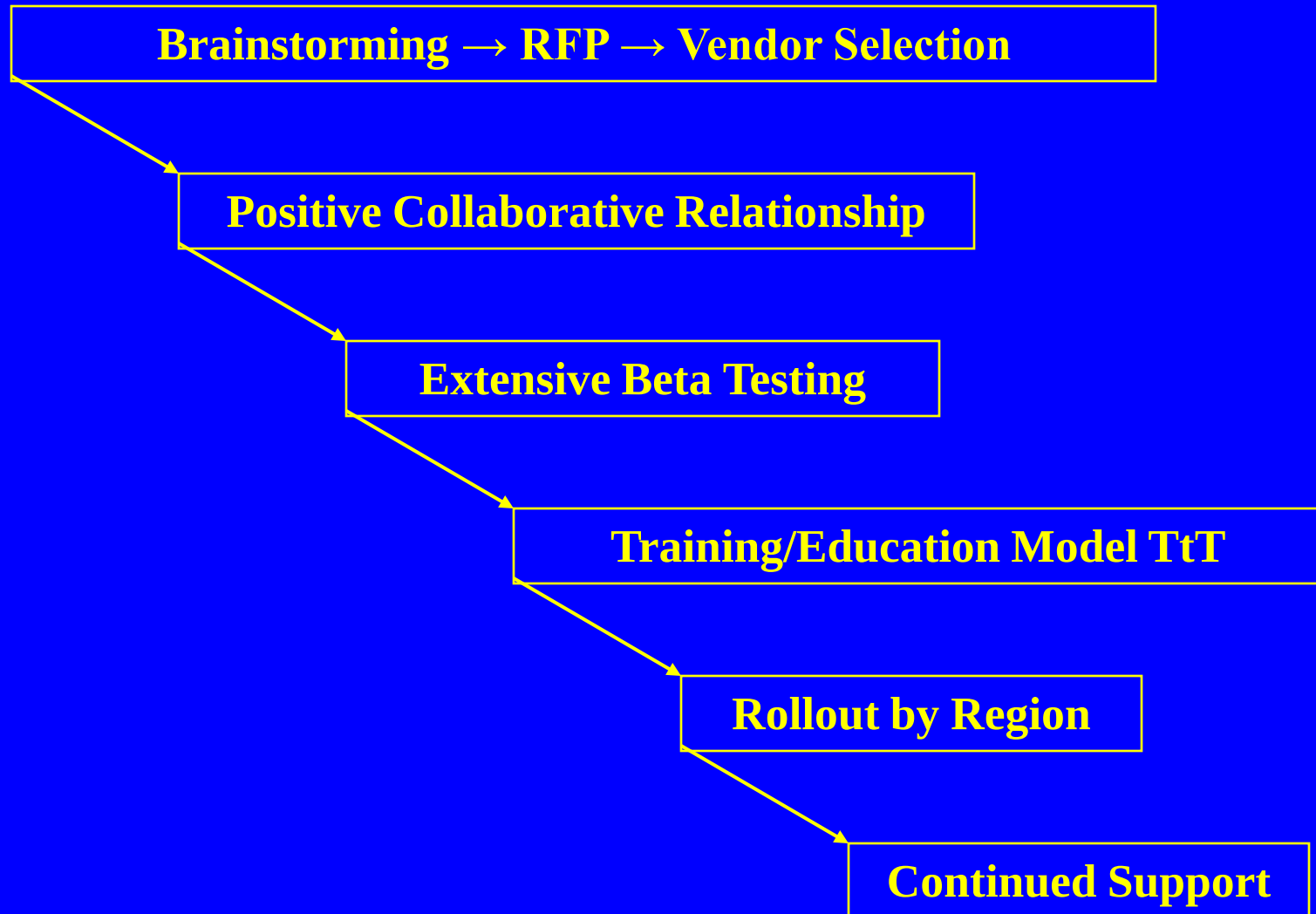
Development

- **Stakeholder Driven**
- **Brainstorming**
- **RFP**
- **Vendor Selection**

Stakeholders

- **Any group interested in EMS or EMS data**
 - **Service Leaders**
 - **Providers, Union**
 - **Private, Public, Hospital based**
 - **Hospital/ Regional Coordinators**
 - **Injury Prevention**
 - **Health Statistics**
 - **Highway Safety**
 - **State IT/IS**
 - **State EMS Leadership**

Process



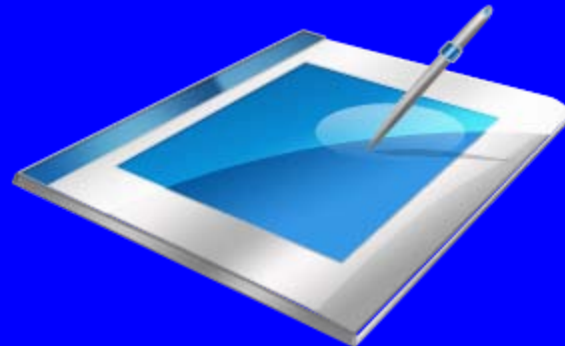
But what's in it for Me?



Me



Entry Methods



Providers

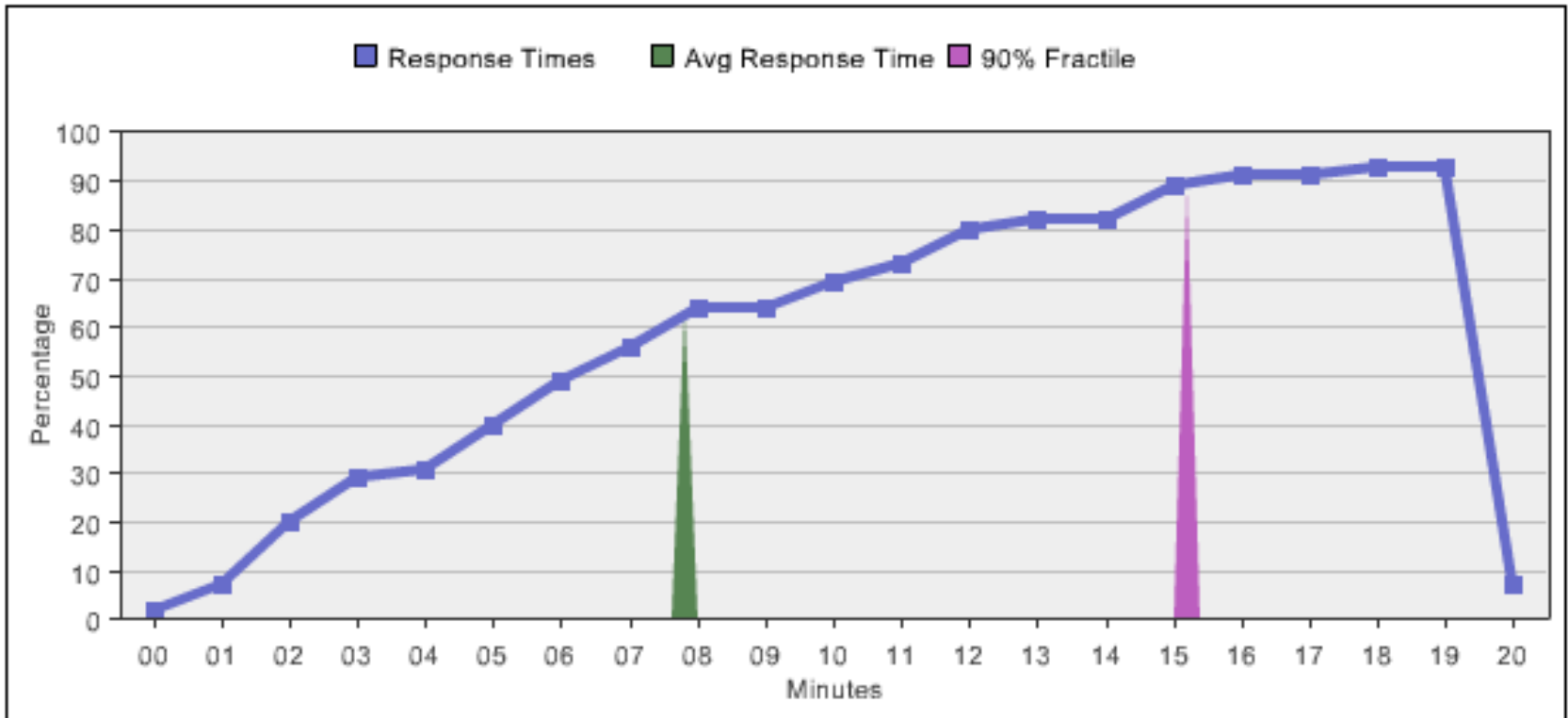
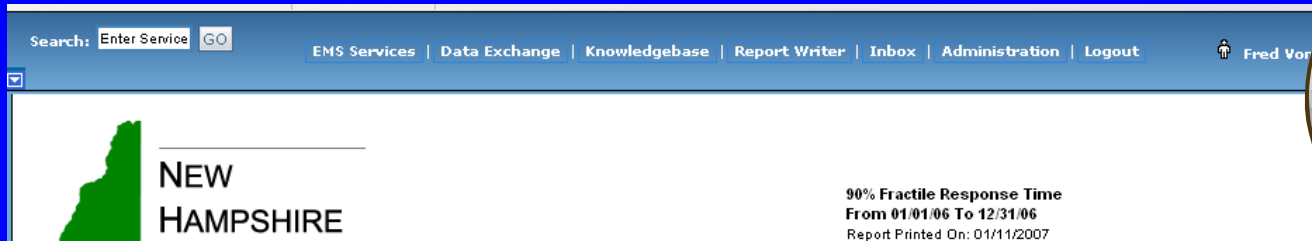
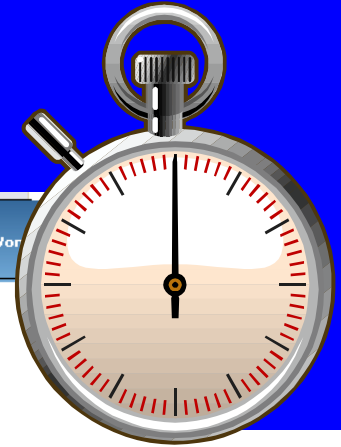
WORK

Continued Education							
Incident Command System	Von Recklinghausen, Fred	19334	NA	01/01/06	01/01/00	0.0 / 0.0	
Burn Trailer	Von Recklinghausen, Fred	19334	NA	10/16/06		4.0 / 4.0	
CPR-NFD	Von Recklinghausen, Fred	19334	NA	11/28/06	11/30/08	2.0 / 2.0	
Cyanide NIMS	Von Recklinghausen, Fred	19334	NA	03/27/06	01/01/00	2.0 / 2.0	
EMS/FIRE Modules-NFD	Von Recklinghausen, Fred	19334	NA	04/25/06	01/01/00	2.0 / 2.0	
Gas Detection Monitoring NIMS	Von Recklinghausen, Fred	19334	NA	02/21/06	01/01/00	2.0 / 2.0	
HAZMAT	Von Recklinghausen, Fred	19334	NA	01/01/06	01/01/00	0.0 / 0.0	

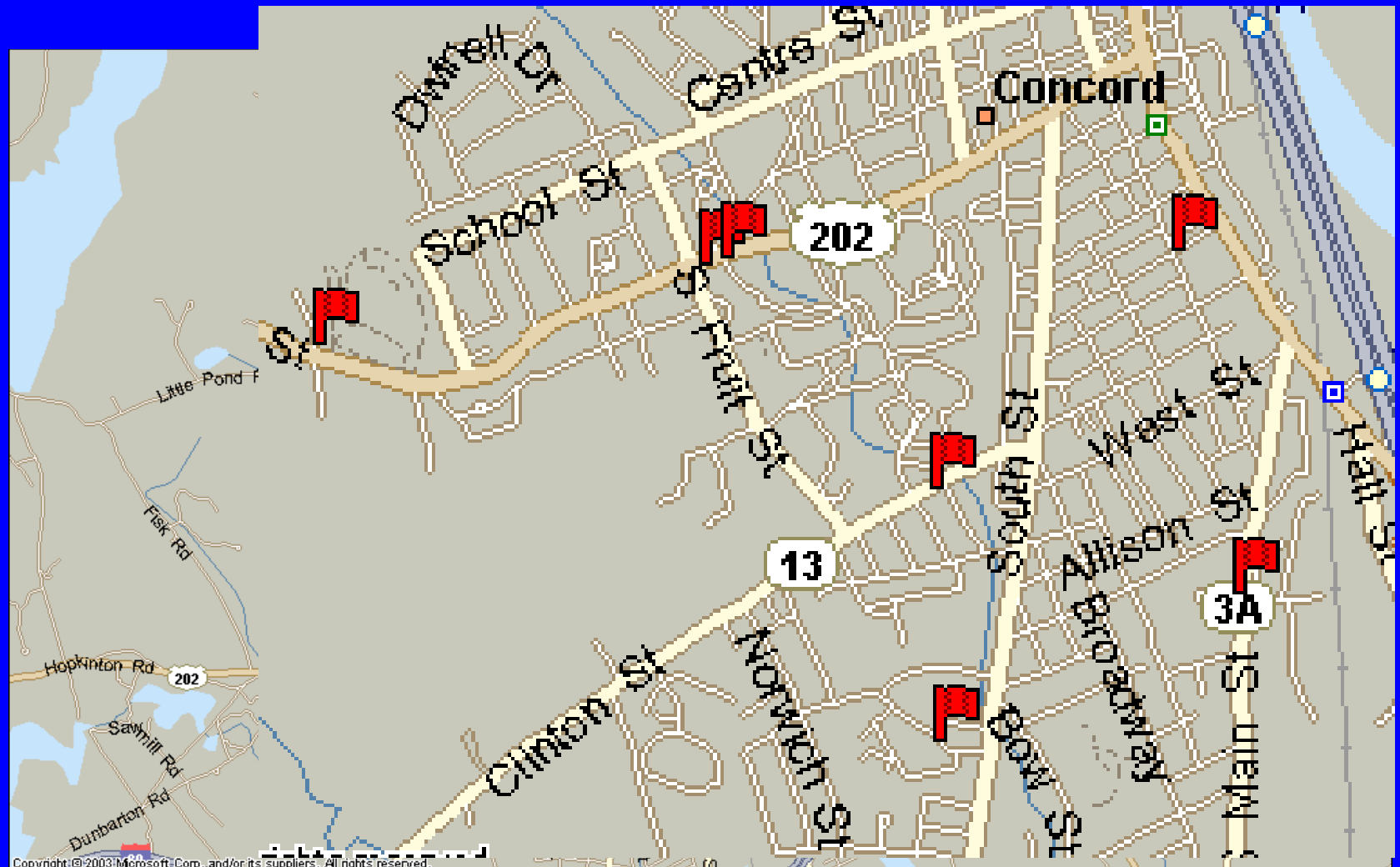
WORK

Continued Education			
Incident Command System	Von Recklinghausen, Fred	19334	
Burn Trailer	Von Recklinghausen, Fred	19334	
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HAZMAT	Von Recklinghausen, Fred	19334	
Ladders-NFD	Von Recklinghausen, Fred	19334	

Providers



Service Leaders



Billing



Search:

[EMS Services](#) | [Data Exchange](#) | [Knowledgebase](#) | [Report Writer](#) | [Inbox](#) | [Administration](#) | [Logout](#)  Fred V.

Please remember to click on the above button to save your Insurance Record.

Medicare Questionnaire

Medically Necessary	Yes	Transported To/For	Closest Facility
MovedByStretcher	Yes	Round Trip Reason	
Visible Hemorrhaging	No	Stretcher Reason	
Unconscious/Shock	No	Physical Restraints	No
Bed Confined Before	No	Hospital Admit	No
Bed Confined After	No	Weight	lbs Kg
Type of Transport	Initial Trip	MSP Reason	Not Applicable

Payment

Primary Method of Payment	Medicare
Work Related	No
CMS Service Level	ALS, Level 1
Air Ambulance Modifier	A-Interfacility Transport (requires higher level of care) Air-A-Long Distance Air-B-Traffic Precludes Ground Transport Air-C-Time Precludes Ground Transport

Hospital Coordinators



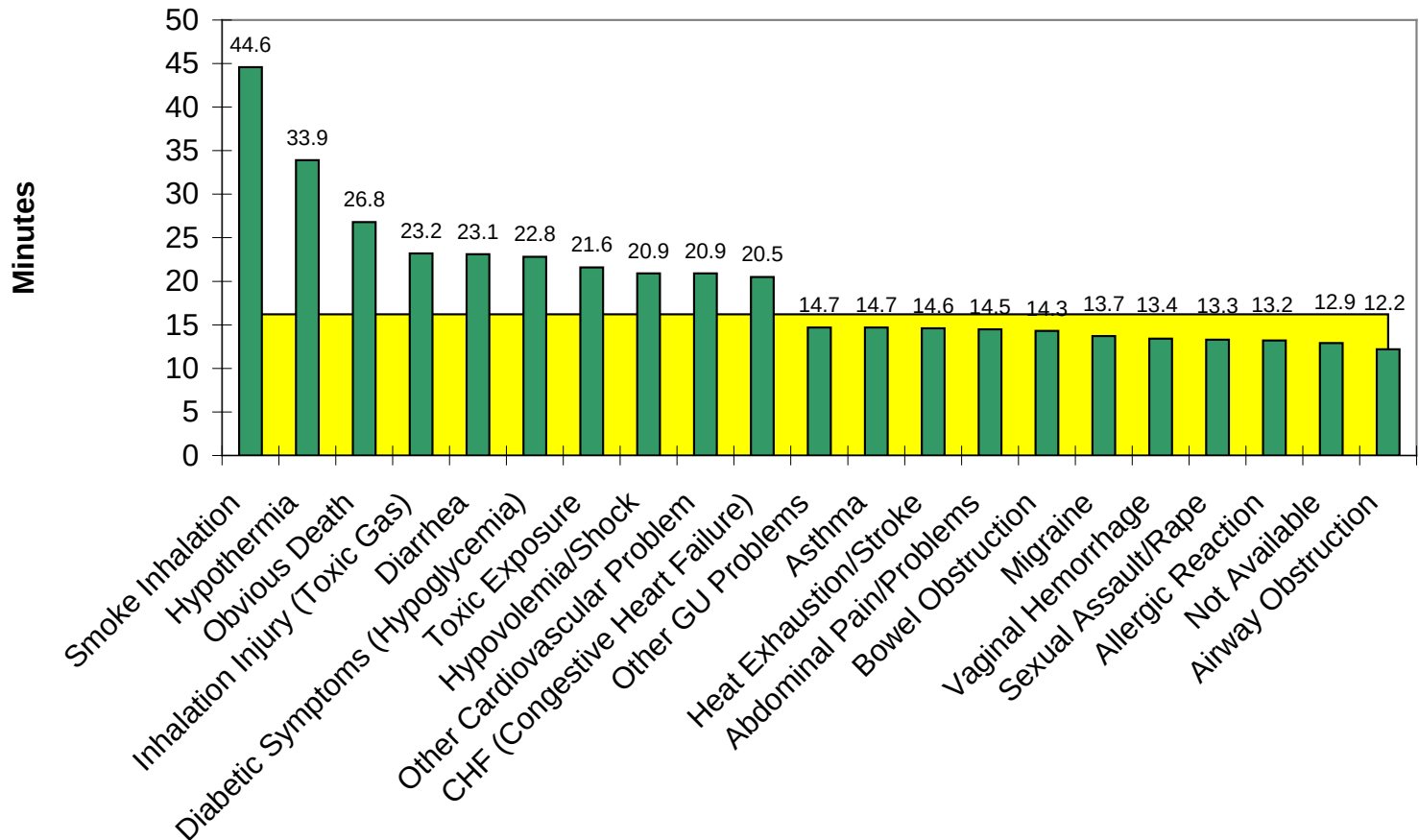
Search: Enter Service GO		Logout Fred Vo	
Search > Search Builder > Portn		I want to: -- Select fr	
Update	Call Number	Provider Impression	Div
	261191	Stroke/CVA	Not
	265369	Unconscious	Not
	286263	Abdominal Pain/Problems	Not
	288446	Unconscious	Not
	290069	Pain	Not
	5289983	No Apparent Illness/Injury	Not
	294103	Nausea/Vomiting (Unknown Etiology)	Not
	296521	Cardiac Arrest	Not
	299287	Abdominal Pain/Problems	Not
	303315	Respiratory Distress	Not
	313570	Unconscious	Not
	315832	Pain	Not
	325017	Traumatic Injury	Not
	330847	ETOH Abuse	Fris
	333992	Traumatic Injury	Not
	346951	Pain	Not
	350399	Epistaxis (Non-Traumatic)	Not
	351825	Altered Level of Consciousness	Not
Done		Internet	

TEMSIS Stats

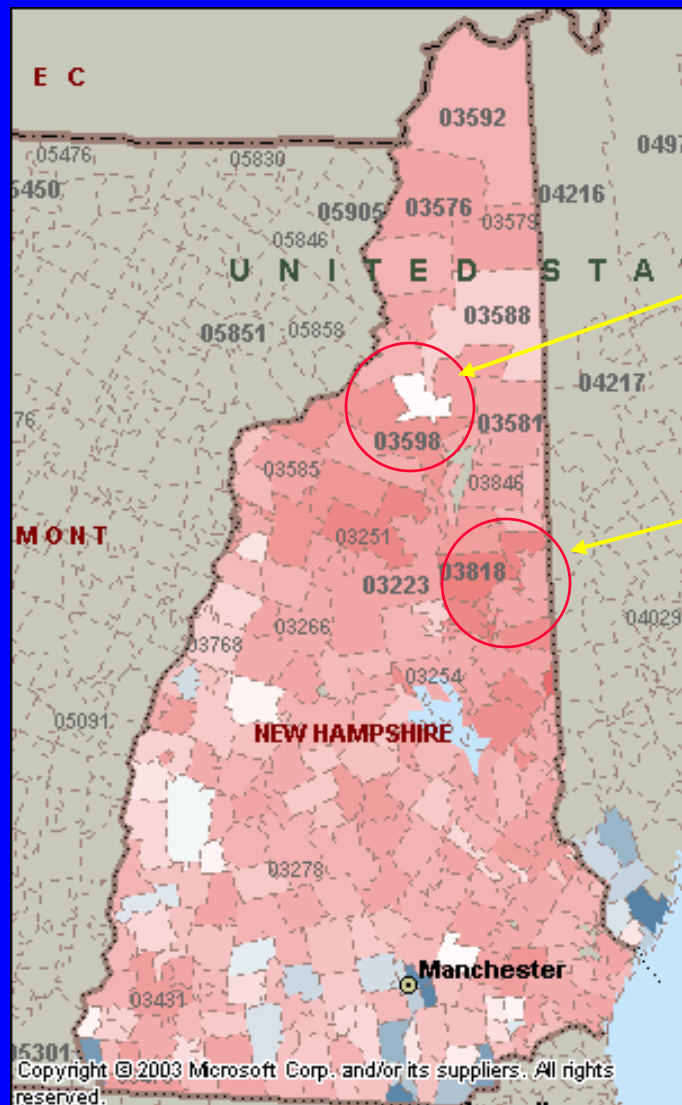
- 424,611 PCR in 2009
- More than 80% of NH Units Participating
- Over 3,200 users have logged in

State Officials

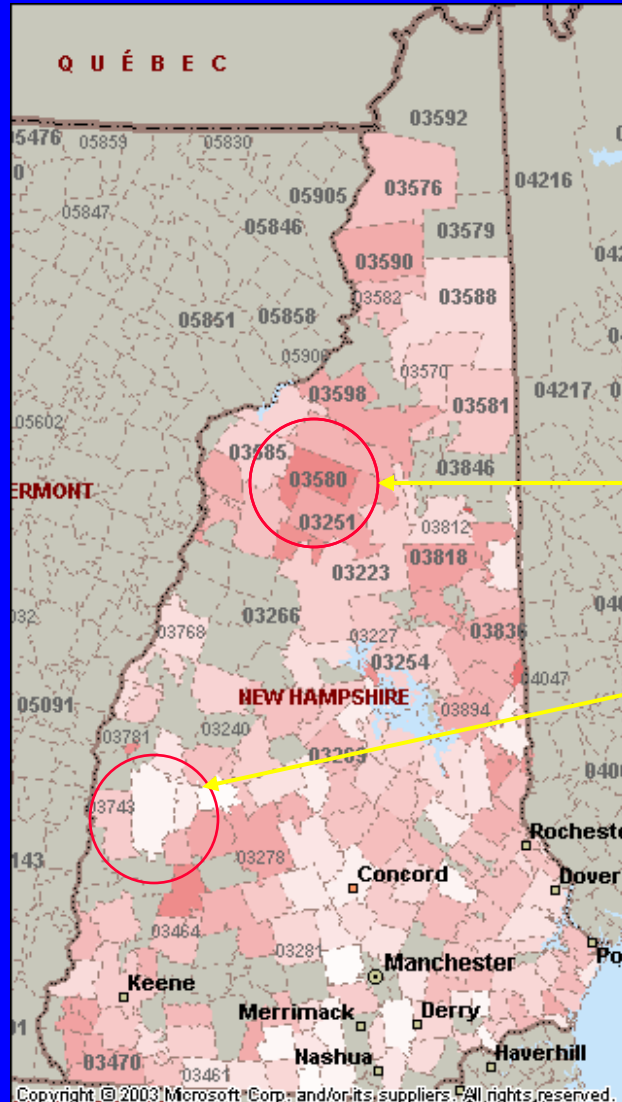
Provider Impression Longest and Shortest On Scene Times



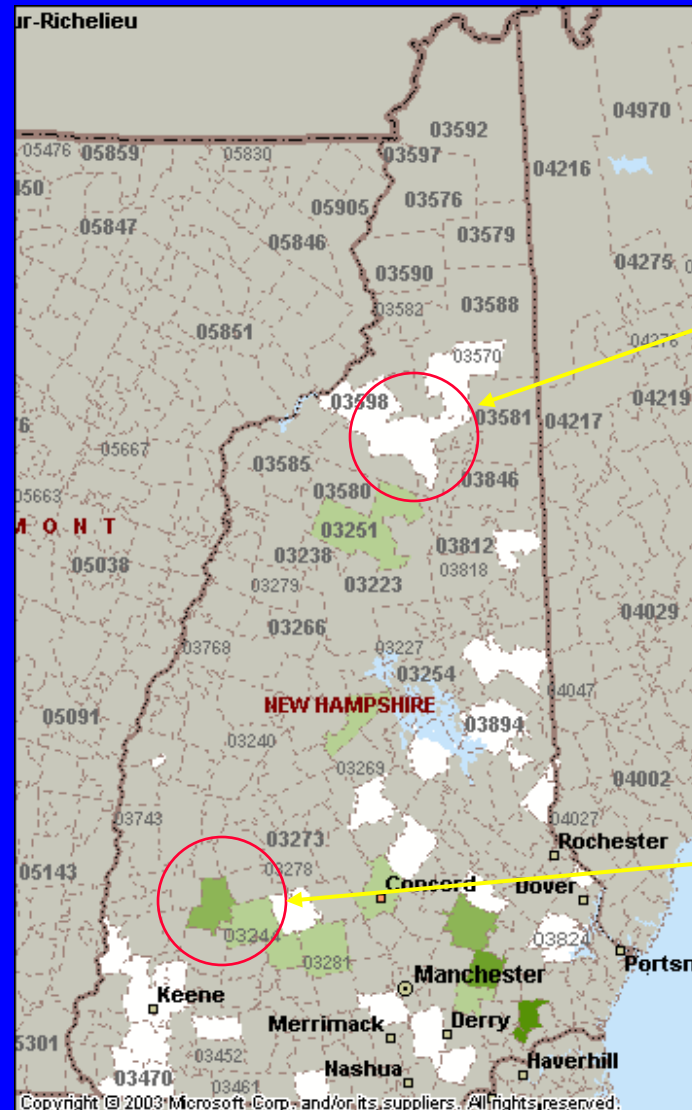
All calls by population



HRSA - Cardiac Arrest Rate



HRSA - AED 1st Responder



Lower usage
of AED's

Higher usage
of AED's

Medical Control Board

- Requirement to change protocol
 - National Level Research
 - Study using local (NH) data
- Protocols changed
 - Intermediate endotracheal intubation
 - CPAP

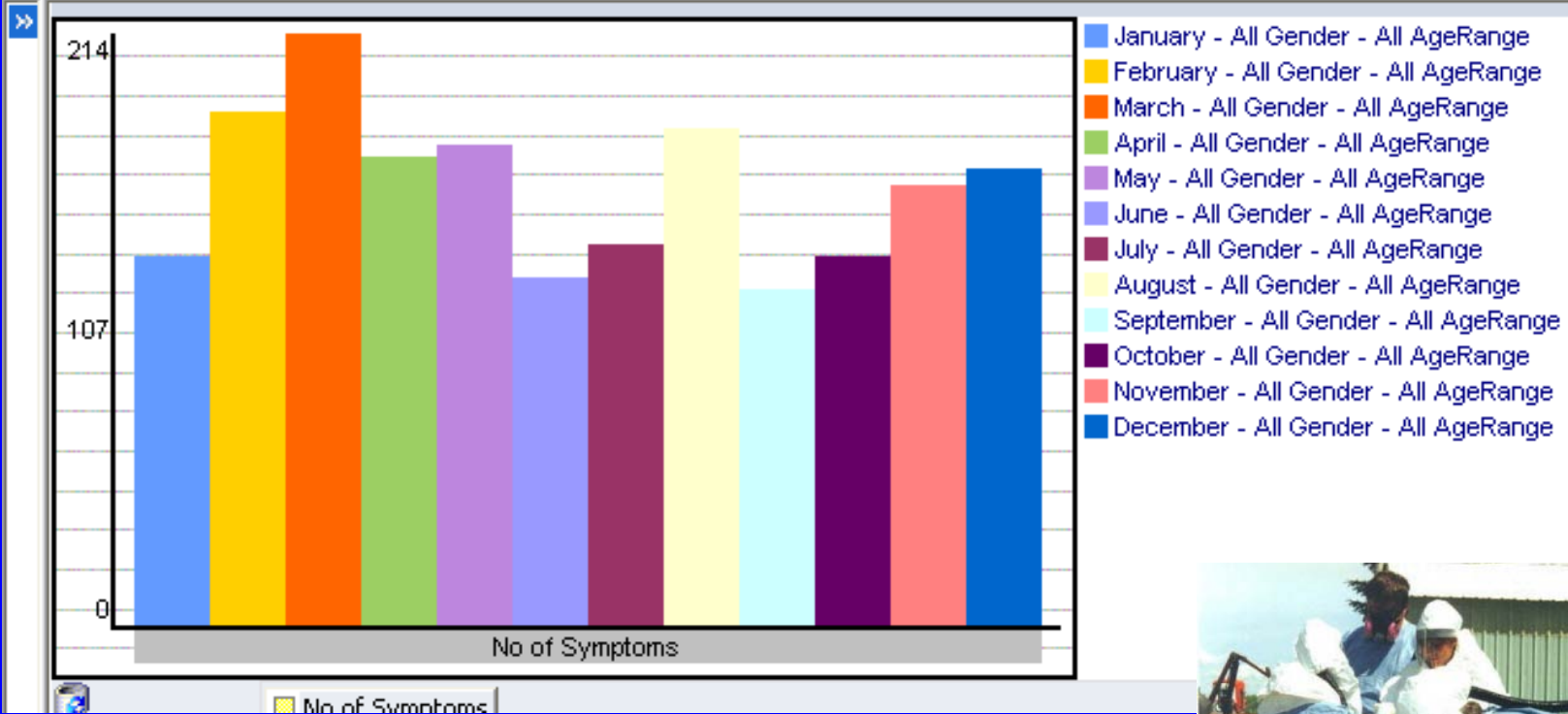


BT - Fever

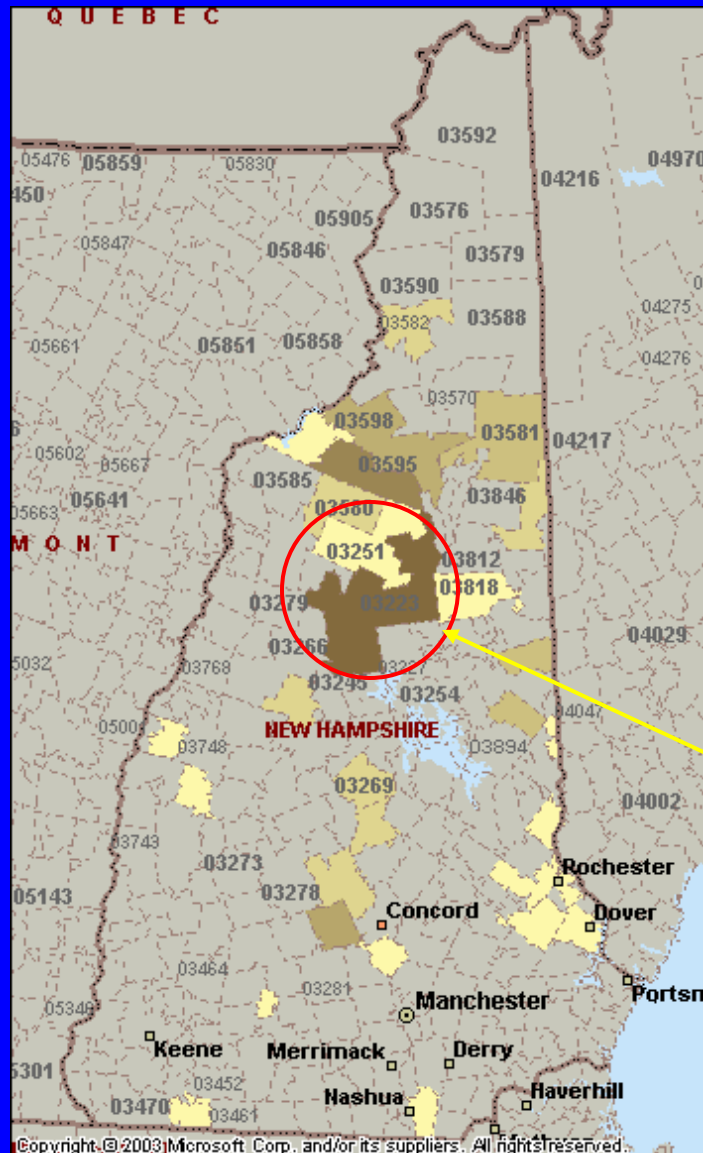
TEMS[®]
Visual Informatics

View

Design

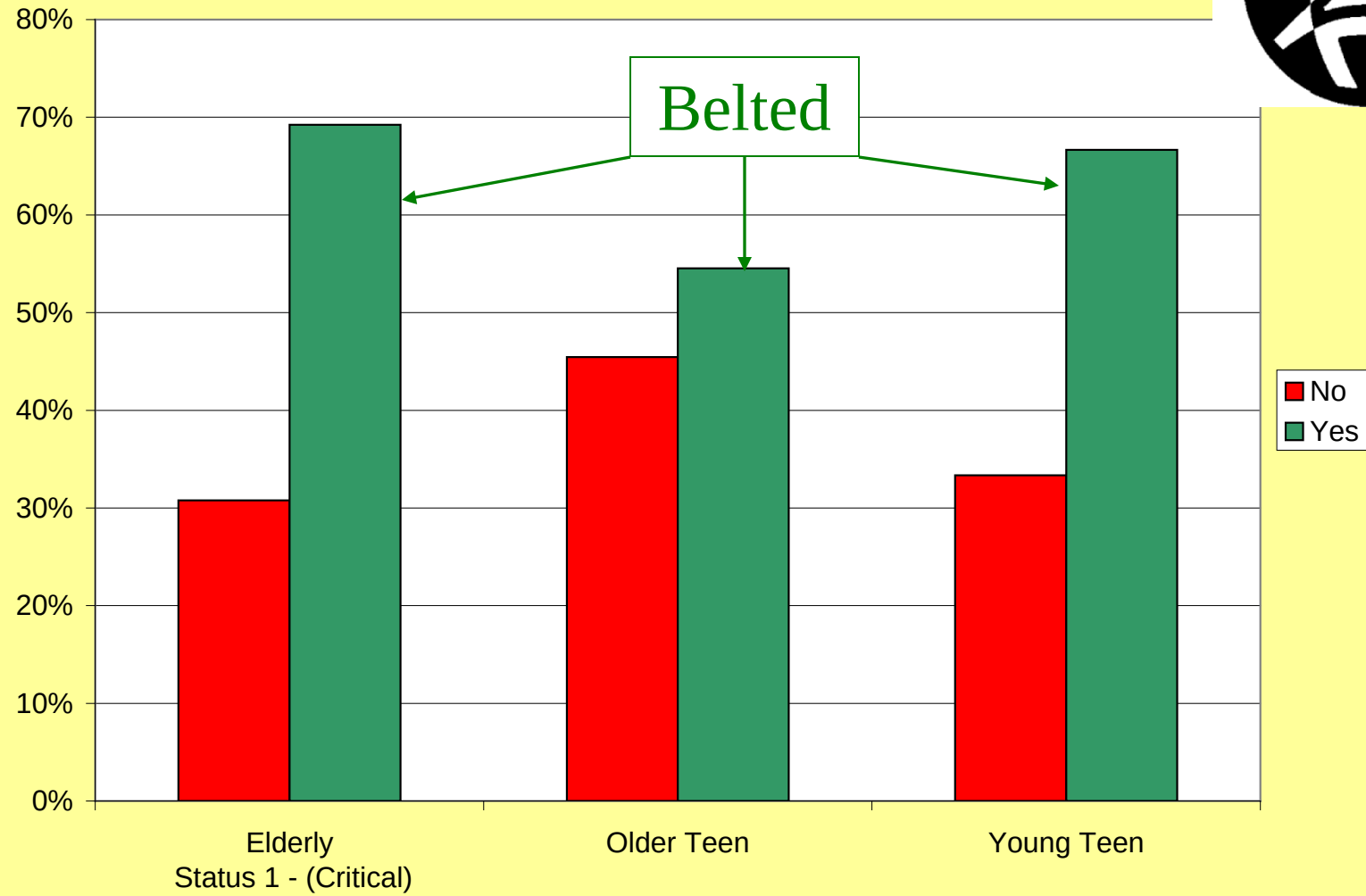


NHHSA - MV vs. Moose



Lots of Moose

Injury Epidemiology



Trauma Data



~30%



Who sees what?



- **State – Everything**
- **Public Health – View all**
- **Service administrators – Everything in their service**
- **QI – De-identified Information**
- **Hospitals – All of their patients**
- **Providers – On a call**

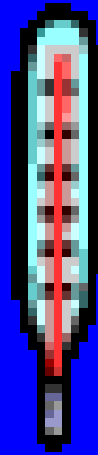
National, State and Local Uses of Data

- **Research**
 - **Weather and EMS Volumes**
 - **Fuel Prices and Motorcycle Crashes**
 - **Rural Trauma Transport**
- **Policy**
 - **Intermediate endotracheal intubation**
 - **Seatbelt legislation**
- **Resources**
 - **Grant funding**
 - **Medicare/Medicaid**

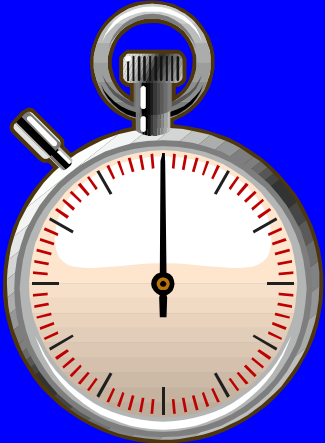
What could we have done differently?

- Large services
- Validation rules
- Step-by-step video
- Link with
Academic Centers
(Dartmouth
College, University
of New Hampshire)





Collaboration pays off !



Questions?

