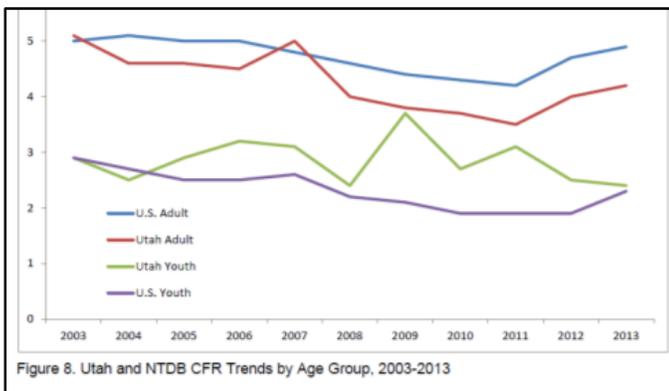


Utah Pediatric Trauma Network
 Proposal: Pediatric Trauma Brain Injury Pilot
Senator Jani Iwamoto

Proposal: Establish a statewide pediatric trauma network, inclusive of all regions and hospitals, to collectively and collaboratively improve outcomes for pediatric victims of trauma; decrease healthcare costs by improving pediatric trauma patient transfer practices; and reduce pediatric trauma morbidity and mortality.

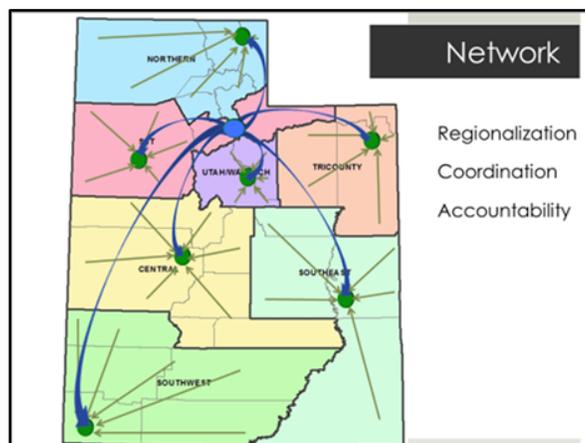
Rationale: A recent study of children transferred to Primary Children’s Hospital over a 10-year period (2003–2013) found that 27% of the transfers could have been prevented. In fact, 1/3 of these children were discharged directly from Primary Children’s Emergency Department (ED) without admission. Such transfers add an extraordinary cost to the health care system, not only in dollars but in resources, time and burden to patients and their families, especially those who live far from Primary Children’s Hospital — the only level-one pediatric trauma center in the State of Utah¹. Additionally, recent data published by the Utah Department of Health demonstrate that the overall case fatality rate (CFR) for children 0 – 19 years treated in Utah for traumatic injuries is higher than the national average (see figure 8)². Table 2 from this same report demonstrates that this increased CFR originates from injured children treated at hospitals other than Primary Children’s Hospital.



	<i>N Total</i>	<i>N Alive</i>	<i>N Dead</i>	<i>CFR Average</i>
PCH 0-14	8775	8579	196	2.2
PCH 15-19	713	702	11	1.5
Other 0-14	2187	2093	94	4.3
Other 15-19	5542	5350	192	3.5

Currently, there is no formal system in place to improve statewide pediatric trauma care. In Chapter 8, part 2 of the Utah EMS system act (section 26-8a-205), it states that “the department shall establish a pediatric quality improvement resource program”. This is the overall purpose of the Utah Pediatric Trauma Network. Through formal collaborative agreements and the availability of advanced communications, including telehealth connections, a structure can be developed to extend resources and expertise of the level-one pediatric trauma center to providers within a statewide pediatric trauma network.

The pediatric trauma network would right-size pediatric trauma triage, and ensure treatment of the right patient at the right place and at the right time. It would improve patient outcomes by using collaborative care guidelines, quality benchmarks, and interdisciplinary participation in performance improvement and patient safety. Providers in the network would share pediatric trauma data and participate in quarterly reviews to facilitate these improvements.



Measures of Success:

- 1) Establish regional pediatric traumatic brain injury (TBI) guidelines
- 2) Benchmark data collection in the Utah/Wasatch, and Southwest regions
- 3) Establish quarterly Performance Improvement Patient Safety (PIPS) Meetings in Utah/Wasatch, and Southwest regions
- 4) Initiate tele-trauma services between Primary Children’s Hospital, Dixie Regional Medical Center, and Utah Valley Regional Medical Center
- 5) Convene a Primary Children’s Trauma Network Symposium

Budget:

Salaries	Annual Salary	Benefits	Total
Advanced Practice Clinician Coordinator	\$ 125,280	\$ 47,230	\$ 172,510
Data Analyst	\$ 73,080	\$ 27,551	\$ 100,631
Program Assistant	\$ 41,760	\$ 15,743	\$ 57,503
Regional Costs	Annual Total	Regions	Total
Regional Support for data and benchmarking	\$ 12,000	2	\$ 24,000
			\$ 354,644

Utah Pediatric Trauma Network Supporters:

Trauma Center	Medical Director	
Intermountain Medical Center, Level One Trauma Center	Mark Stevens, MD	mark.stevens@imail.org
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Utah Trauma System Advisory Committee		
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Committee Chair	Craig Cook, MD	ctmcook@comcast.net
Intermountain Healthcare System wide Trauma Operations Council		
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Council Chair	Mark Stevens, MD	mark.stevens@imail.org

References

- 1) Fenton SJ, Lee JH, Stevens AM, Kimbal KC, Zhang C, Presson AP, Metzger RR, Scaife ER. Preventable transfers in pediatric trauma: A 10-year experience at a level I pediatric trauma center. J Pediatric Surg. 2015 Oct 9. pii: S0022-3468(15)00603-X. doi: 10.1016/j.jpedsurg.2015.09.020.
- 2) Bureau of Emergency Medical Services and Preparedness, Utah Department of Health (2015). *Traumatic Injury in Utah’s Trauma System, 2001-2013*. Salt Lake City, UT.