



CALIFORNIA REPUBLIC

California !

State of the California Trauma System

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State of the 'System'

- Status of "The Plan" & key elements
- Progress within the 'system'
- Project priorities
- Challenges & opportunities

Trauma system

An organized set of legal, regulatory, and administrative structures coupled with human resources and medical care facilities, integrated in a way that provides optimal care to victims of major injury and informs and supports injury prevention & research.

Primary goals of the trauma system

- Providing timely access to trauma care throughout the 'system'
- Promoting the delivery of optimal trauma care throughout the continuum
- Improving community health & wellness

The California Trauma System: Reality Check

- 58 Counties, 32 LEMSAs
- Strength of local adaptability
- Weakness of undesirable variability
- Will continue to be under-staffed & under-financed
- Competing needs for Stroke/STEMI programs

The California Trauma System: Reality Check

- Need for expert volunteer workforce & expertise within system
- The solidifying effect of:
 - Robust data
 - Networking & good communications
- Hawthorne effect in improving trauma system development & performance

The Trauma Plan

- Final draft completed => to EMSA
 - 12 sections + exec summary
 - 64 pages, excluding appendices
 - 20+ appendices
 - ~ 153 major elements for 'Planned Development'
- Unequivocal recognition of ongoing administrative Authority of LEMSAs
- Extensive utilization of volunteer advisory bodies: STAC & RTCCs

The Trauma Plan: key elements

- Outlines the interactions among:
 - LEMSA, STAC, RTCCs
- Paired leadership promoted
 - LEMSA adm/MD + TMD
- Expanded role of STAC
 - assist w/ coordination of RTCC activity
 - technical support to EMSA
- Function of RTCCs : regional systems

The Trauma Plan: key elements

- Geriatric & pediatric-specific:
 - field triage, re-triage, IFT, data analysis
- facilitate HEMS utilization guidance for trauma
- Statewide hospital alert system to ID capacity & specialty capabilities
- Development of intra-state site survey capability
- Process guidelines for 'compliance assessment'

The Trauma Plan: key elements

- Promote ‘regional co-op agreements’ between receiving & sending centers
- Define role of non-designated acute care facilities
- Dynamic map of state re-triage
- Define ‘micro-systems’ based on geography & re-triage patterns
- EMTALA clarifications

The Trauma Plan: key elements

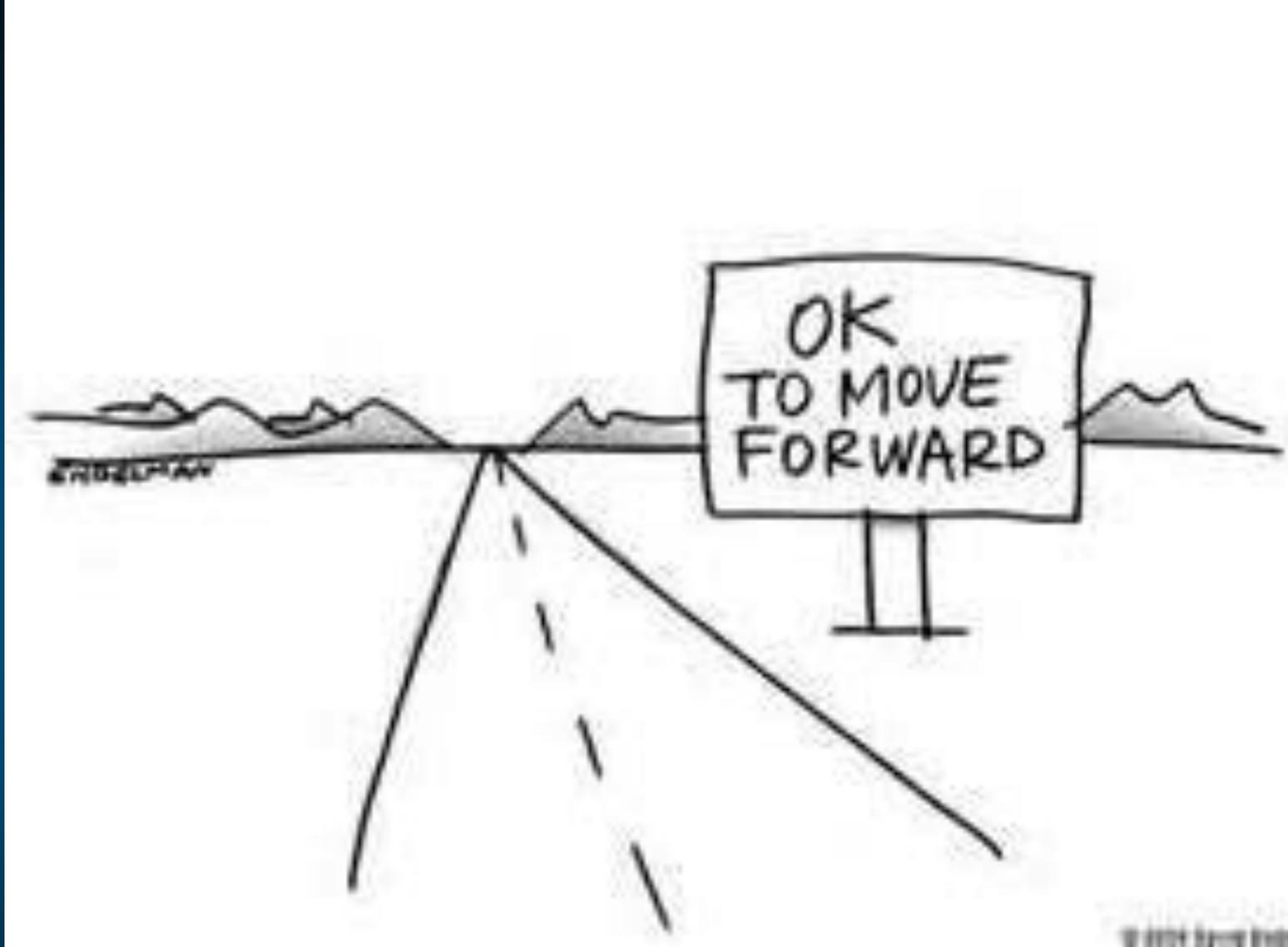
- PMGs for early (pre-definitive) care of:
 - TBI, pelvic fx, vascular injuries, etc.
- Guidelines & benchmarks for discharge destination
- CEMESIS development
 - database linkages
 - validity X-checks
 - compliance
 - incorporation of OSHPD data

The Trauma Plan: key elements

- Comprehensive system PI plan
- State-wide PIPS committee
- Process for data analysis (CEMSIS +)
- Standardized PI report generation
- Case-based 'sentinel' (system) events
- PSA / public education following high profile events (e.g. Newtown)

The Trauma Plan: key elements

- Facilitate access & use of data to system researchers
- Develop system research 'agenda'
- Statewide compendium of prevention programs, contacts & 'best practices'
- Resource assessment for all-hazards preparedness
- PERIODIC REVIEW & REVISION OF SYSTEM PLAN

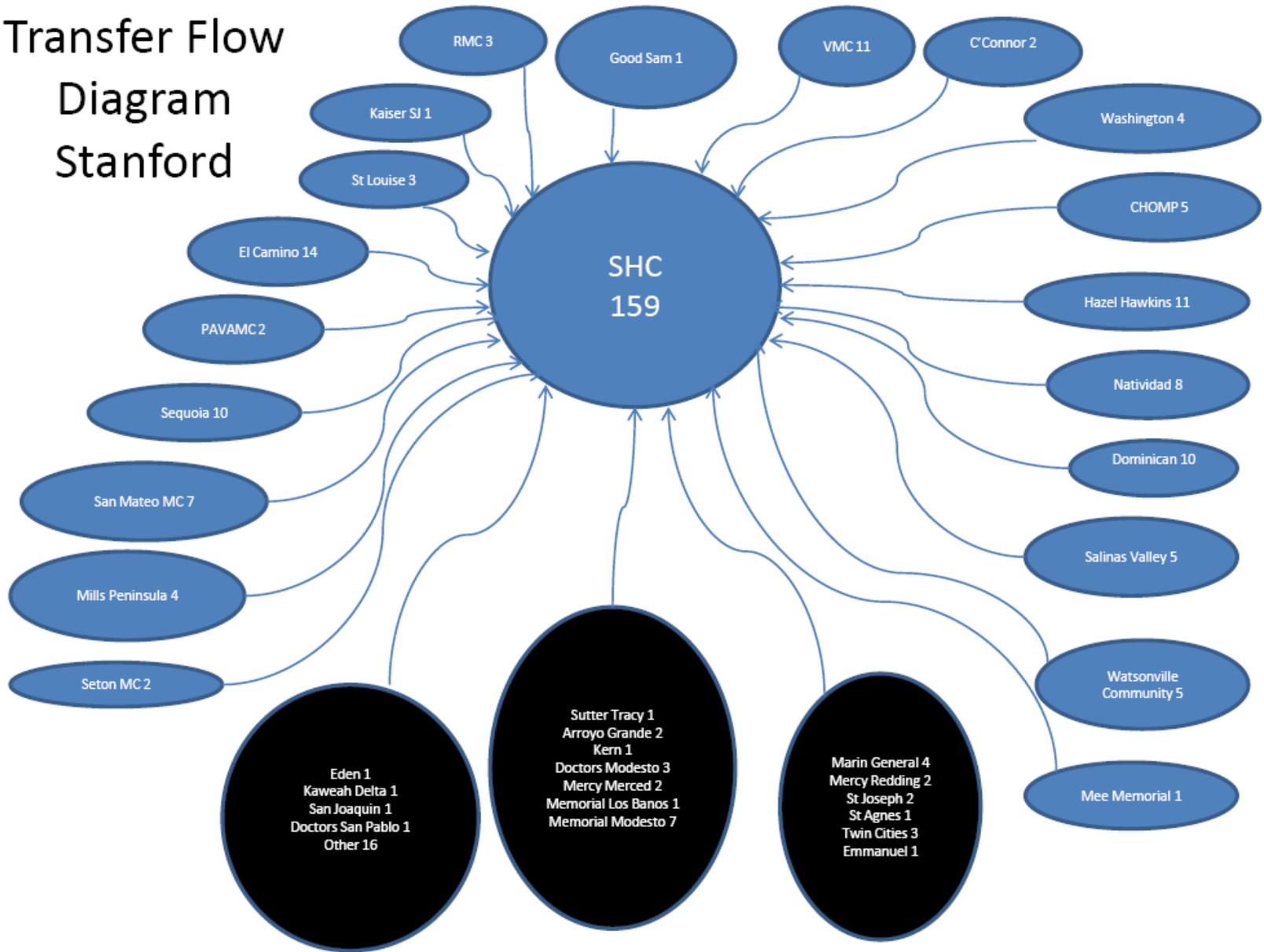


The State system: have we made any progress?

Trauma system progress

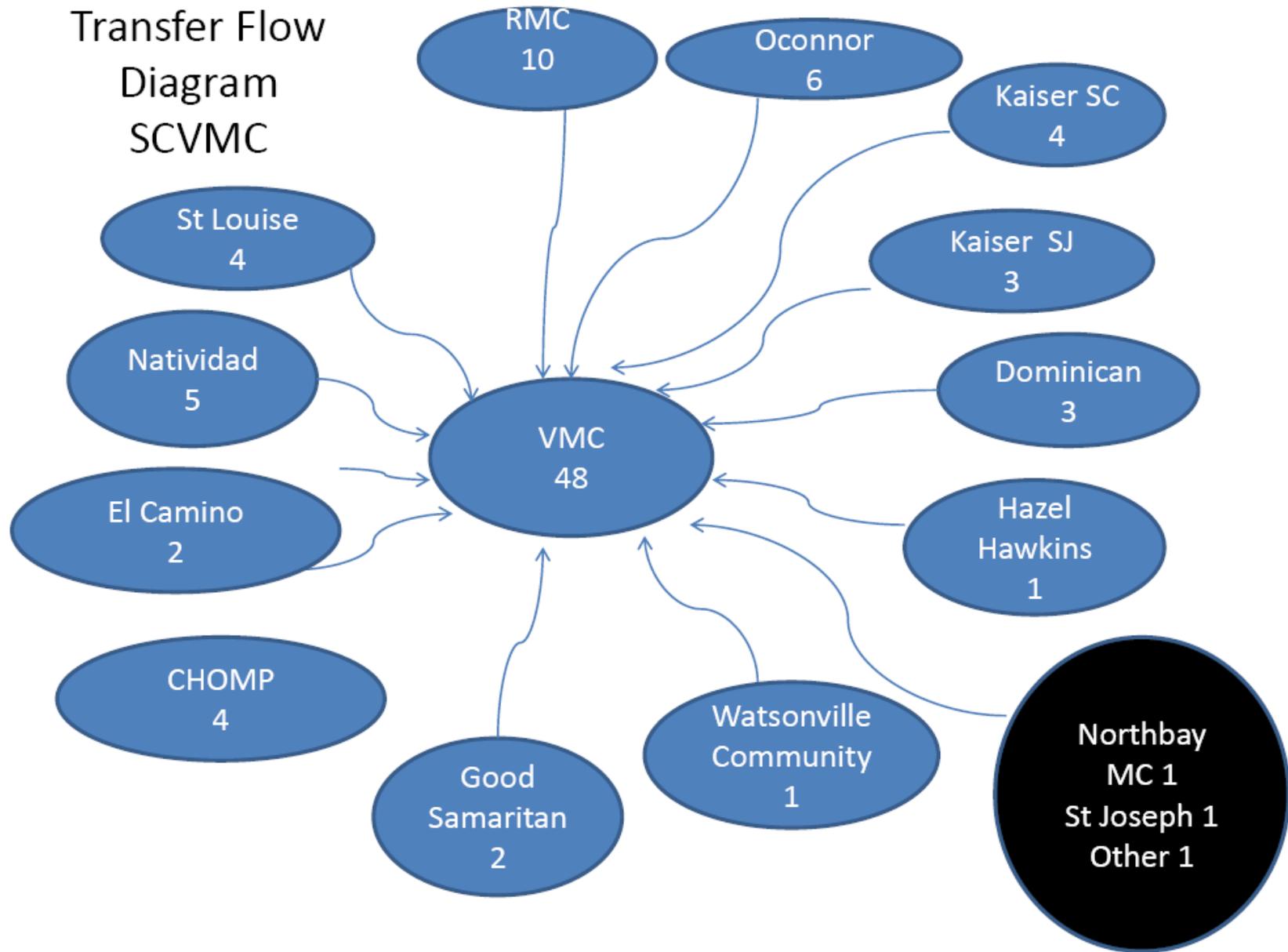
- **Completion of the trauma plan**
 - Establishment of functioning RTCCs
 - Expanded role of STAC
- **Re-triage**
 - education, procedures & guidelines
 - CEMESIS changes initiated
 - regional cooperative agreements
 - analysis of re-triage patterns (pilot)
 - LEMSA survey of re-triage patterns

Transfer Flow Diagram Stanford



Courtesy of Dr. Rick Klein

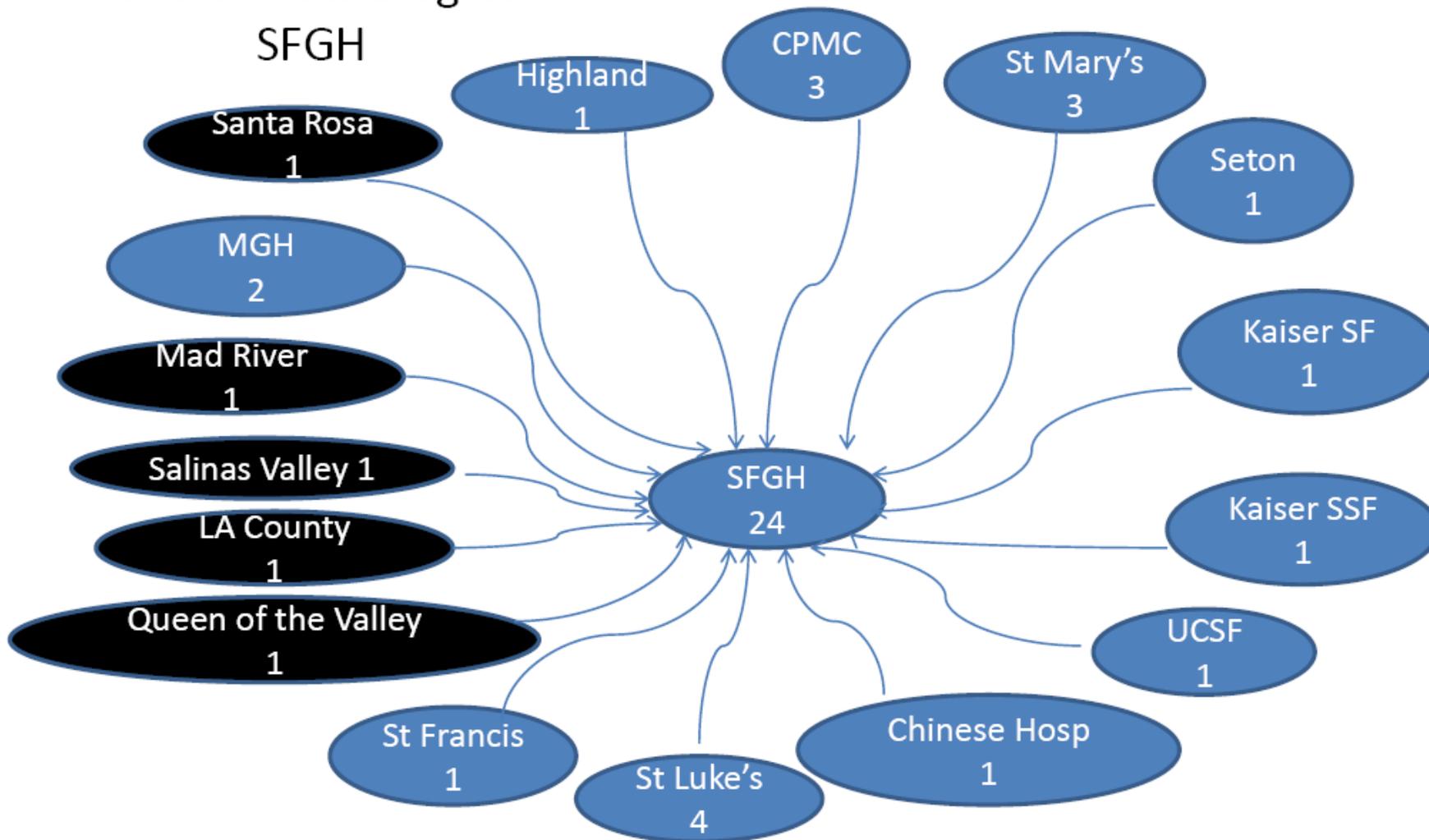
Transfer Flow
Diagram
SCVMC



Courtesy of Dr. Rick Klein

Transfer Flow Diagram

SFGH



Courtesy of Dr. Rick Klein

Trauma system progress

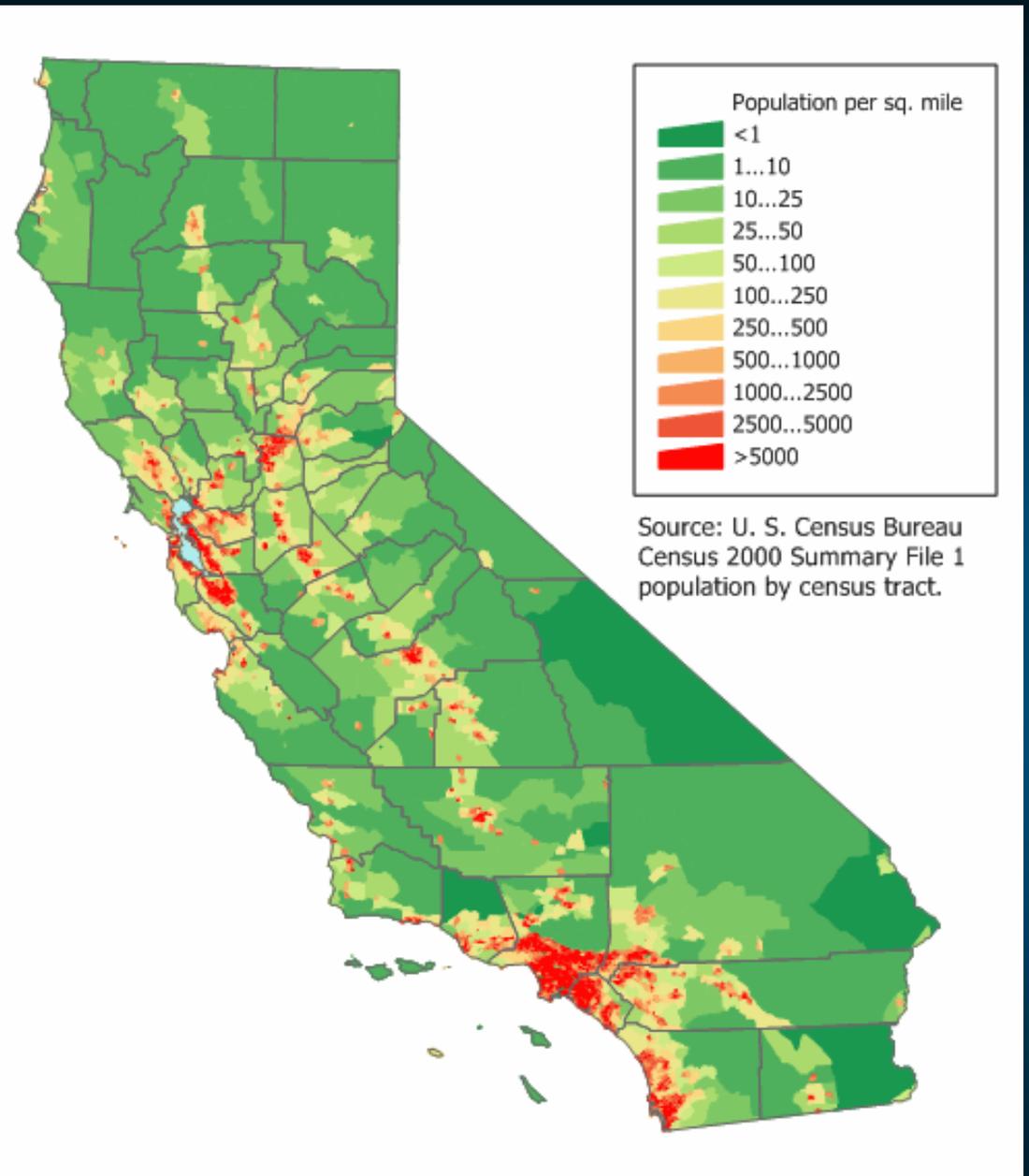
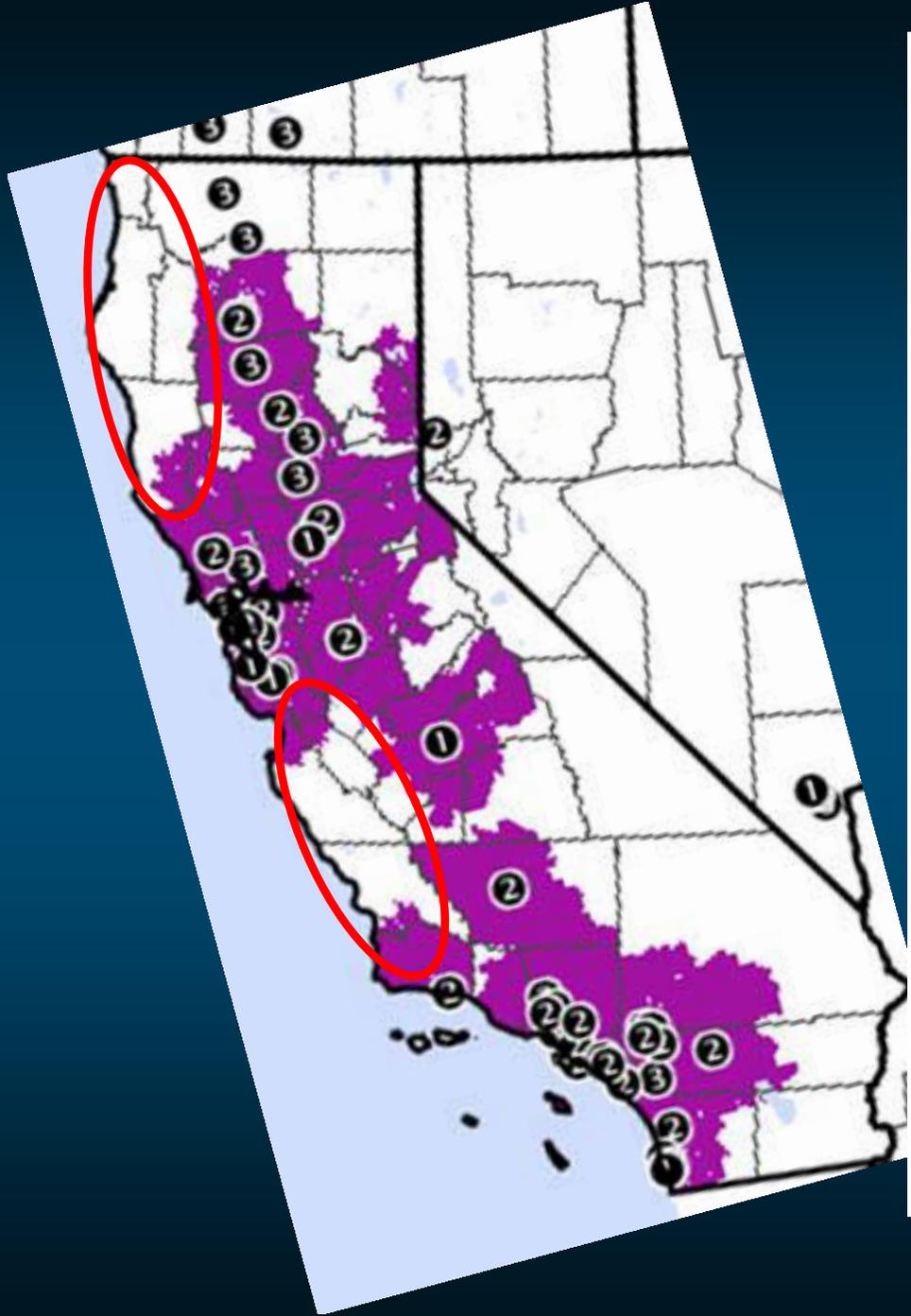
- CEMESIS & system data analysis
- PI: system related, case-based sentinel events, taxonomy project
- Limited compendium of prevention programs
- San Joaquin county development
- Strategic plan development by some RTCCs

Trauma system progress

- Promotion of rural trauma development course
- Improved adoption of CDC/ACS field triage scheme
- beginning to consider “best practices” in some areas
- State-wide Trauma Summits
- Annual regional (RTCC-based) conferences

Trauma system progress

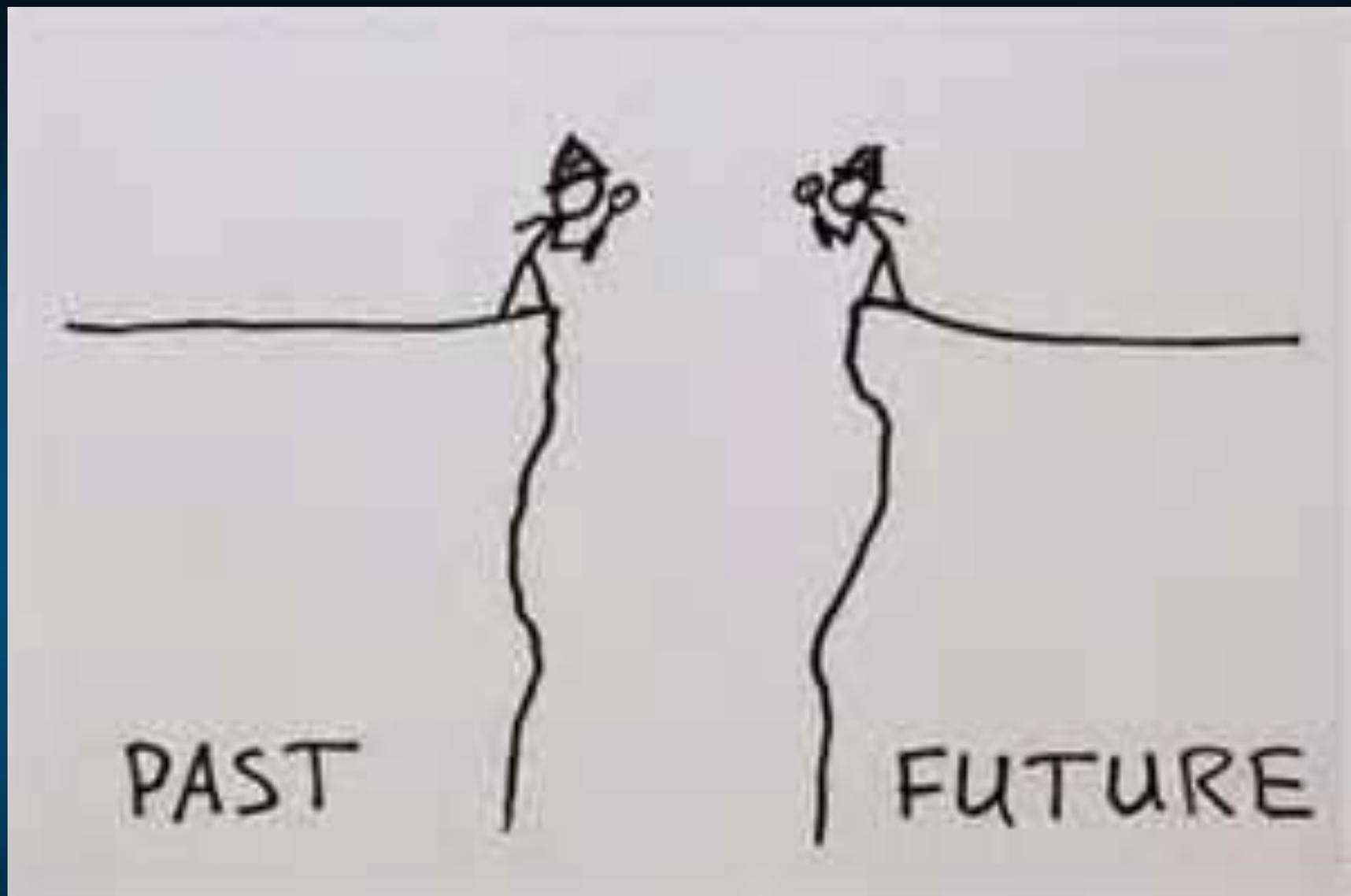
- Compliance assessment (aka verification)
 - Draft T22-based PRQ
 - Proposed process for site surveys
 - Draft PRQ for Title 22 designation
 - Proposed use of intra-State teams to assist LEMSAs in designation evaluation (compliance)
- Expanding the network of definitive care facilities: 'filling in the holes'...



Filling in the holes

- North Coast
 - St. Joseph MC maybe???
- Central Coast
 - Sierra Vista - III
 - Marion MC – pending III
- South
 - Ventura County MC II 7/10
 - Las Robles MC II 7/10
- Central
 - Kaweah Delta III 1/10
- North
 - North Bay III 11/11
 - Kaiser Vacaville III 11/11
 - San Joaquin County – pending III





The State system: So much to do, so little time...

Future directions...?

- Over & under triage benchmarking
- ‘Buddy’ system of acute care facilities
- Managed under-triage
 - ‘send’ & ‘keep’ protocols (e.g. min. TBI)
- Centralized transfer function
- Analysis of TC performance
 - focused PI studies
 - TQIP – like
 - trauma system ‘dashboard’

Future directions...?

- Web-based compendiums
 - guidelines / best practices
 - local / regional programs
- Mapping & monitoring access to care
- Developing an inclusive role for all acute care facilities
- Improving the utility of the RTCCs
- Methodology for stratified field triage

Future directions...?

- Funding the system ('budget dust')
 - targeted legislation (good luck)
 - designation fees
 - activation fees
- Staffing the system
 - For all the LEMSAs
 - Support of the RTCCs
 - Data management, research & development
- Discharge destination & long term outcomes

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