Safety Performance Targets (2018)

08/30/17

Lang Yu, Ph.D.

1

Safety Performance Measures
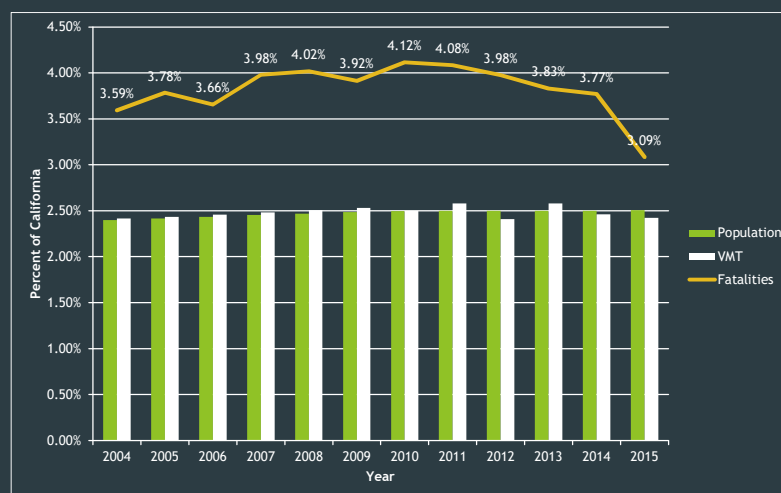
1. **Number of Fatalities**
2. **Rate of Fatalities**
3. **Number of Serious Injuries**
4. **Rate of Serious Injuries**
5. **Number of Non-motorized Fatalities and Non-motorized Serious Injuries**

2

Target Setting Options

1. Follow State targets for one or more safety performance measures.
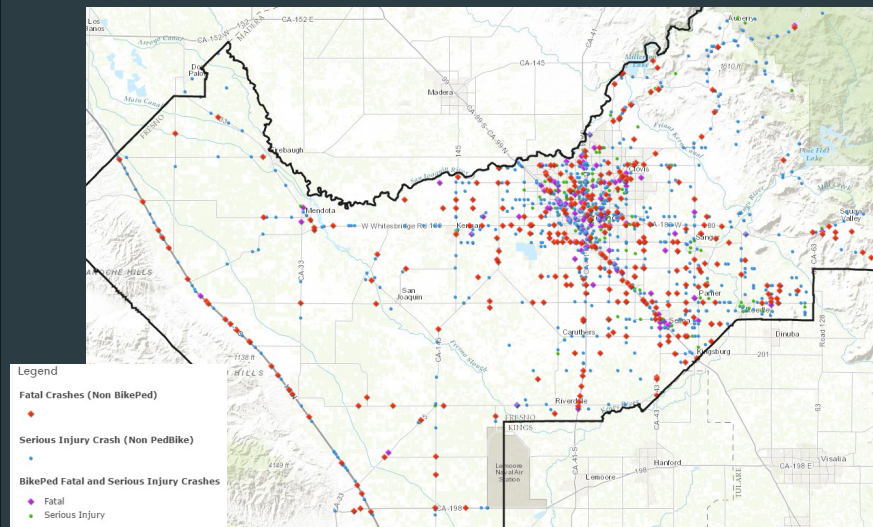2. MPO specific target for one or more safety performance measures.

3

Fatalities vs. Population and VMT

Map of Fatal and Serious Injury Crashes

Legend

Fatal Crashes (Non BikePed)
♦

Serious Injury Crash (Non PedBike)
•

BikePed Fatal and Serious Injury Crashes
♦ Fatal
• Serious Injury

Interactive Map:
http://arcg.is/1P0W0b

Source: Traffic Injury Mapping System, UC-Berkeley

5

By Jurisdiction

Jurisdiction	Fatalities	Fatalities/100,000 Pop	Serious Injuries	Serious Injuries/100,000 Pop
Clovis	21	20.9	20	19.9
Coalinga	2	11.8	4	23.6
Firebaugh			1	12.3
Fowler	3	49.9	5	83.2
Fresno	157	30.7	332	65.0
Huron	1	14.7	1	14.7
Kerman	1	7.0	3	21.0
Kingsburg	1	8.5	5	42.8
Mendota	1	8.7	3	26.3
Orange Cove			1	10.4
Parlier	3	20.1	3	20.1
Reedley			10	39.8
Sanger	2	8.1	12	48.5
Selma	8	33.3	18	74.9
*Unincorporated**	*392*	*232.7*	*917*	*544.4*

* Number not comparable with other jurisdictions

2009-2013 Data

6

Top Contributing Factors

Top Contributing Factor	Fatal Crashes	Percent of Fatal Crashes	Serious Injury Crashes	Percent of Serious Injury Crashes
Alcohol and Drug Impaired	135	26.4%	246	24.0%
Improper Turning	103	20.2%	239	23.3%
Pedestrian Violation	64	12.5%	66	6.4%
Failure to Yield Right-Of-Way	56	11.0%	116	11.3%
Unsafe Speed	52	10.2%	160	15.6%
Disregard Signal or Sign	46	9.0%	72	7.0%

2009-2013 Data

7

Collision Type

Collision Type	Fatal Crashes	Percent of Fatal Crashes	Serious Injury Crashes	Percent of Serious Injury Crashes
Broadside (T-bone)	121	23.5%	209	19.9%
Hit Fixed Object	108	21.0%	273	26.0%
Pedestrian	102	19.8%	112	10.7%
Overturned	62	12.0%	176	16.7%
Head On	50	9.7%	83	7.9%
Rear End	35	6.8%	101	9.6%
Other	29	5.6%	43	4.1%
Sideswipe	8	1.6%	54	5.1%

2009-2013 Data

8

Historical Trend Summary

▶ Fatalities and fatality rates have been decreasing since the new millennium nationwide, statewide and countywide.

▶ Since 2013, the number of fatalities and serious injuries have been bouncing back countywide and statewide.

▶ Fresno County has 100+ fatalities every year and has a ~ 40% to 50% higher fatality rate than the state overall.

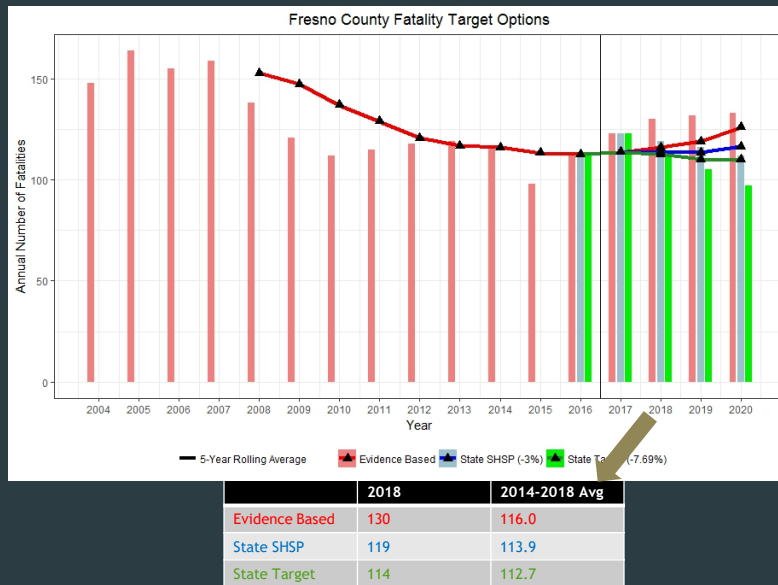▶ Alcohol impaired driving is the top contributing factor to fatal crashes and for serious injury crashes.

9

Setting the Targets

▶ Evidence-based

  ▶ Based on historical trends
  ▶ Multiple ways to fit trend lines

▶ Vision-based

  ▶ State Target (Towards Zero Death)
  ▶ State SHSP
    ▶ 3% Annual Reduction in Fatalities and Fatality Rates
    ▶ 1.5% Annual Reduction in Serious Injuries and Serious Injury Rates
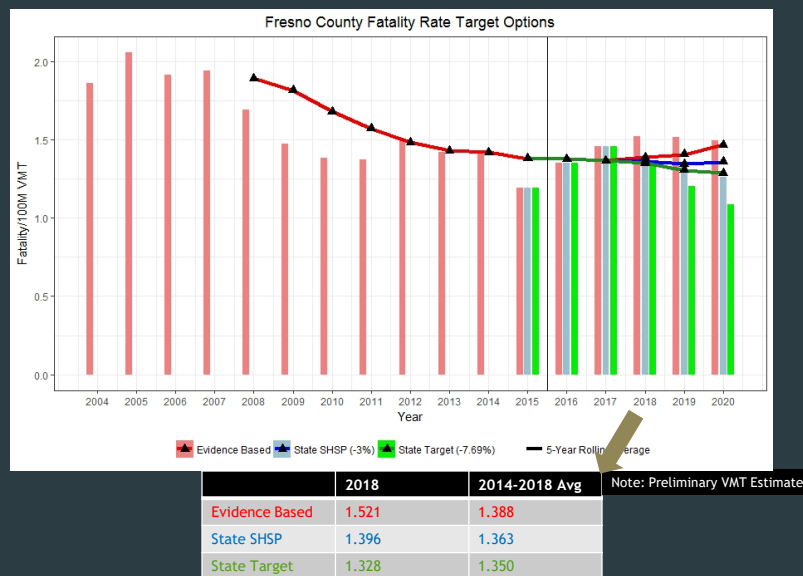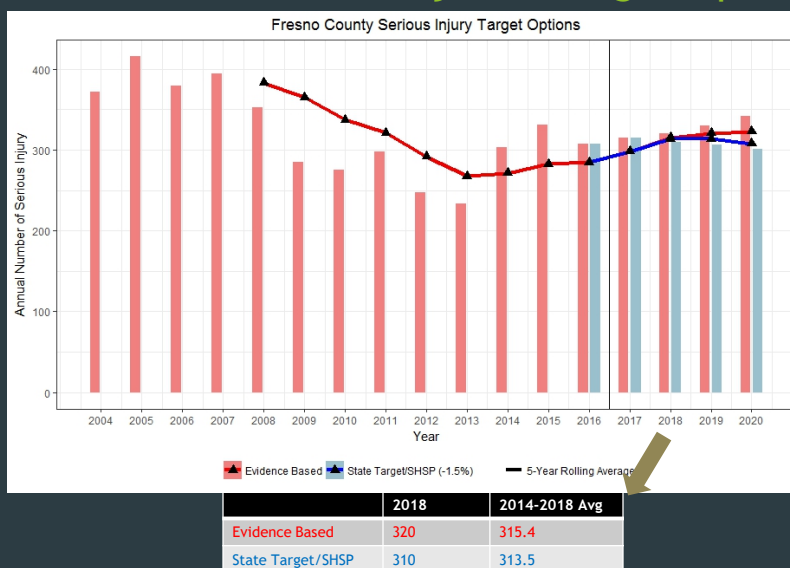
10

1. Number of Fatalities Target Options

	2018	2014-2018 Avg
Evidence Based	130	116.0
State SHSP	119	113.9
State Target	114	112.7

2. Rate of Fatalities Target Options

Note: Preliminary VMT Estimate

	2018	2014-2018 Avg
Evidence Based	1.521	1.388
State SHSP	1.396	1.363
State Target	1.328	1.350

3. Number of Serious Injuries Target Options

Fresno County Serious Injury Target Options

	2018	2014-2018 Avg
Evidence Based	320	315.4
State Target/SHSP	310	313.5

13

4. Rate of Serious Injuries Target Options

Fresno County Serious Injury Rate Target Options

Note: Preliminary VMT Estimate

	2018	2014-2018 Avg
Evidence Based	3.743	3.779
State Target/SHSP	3.629	3.756
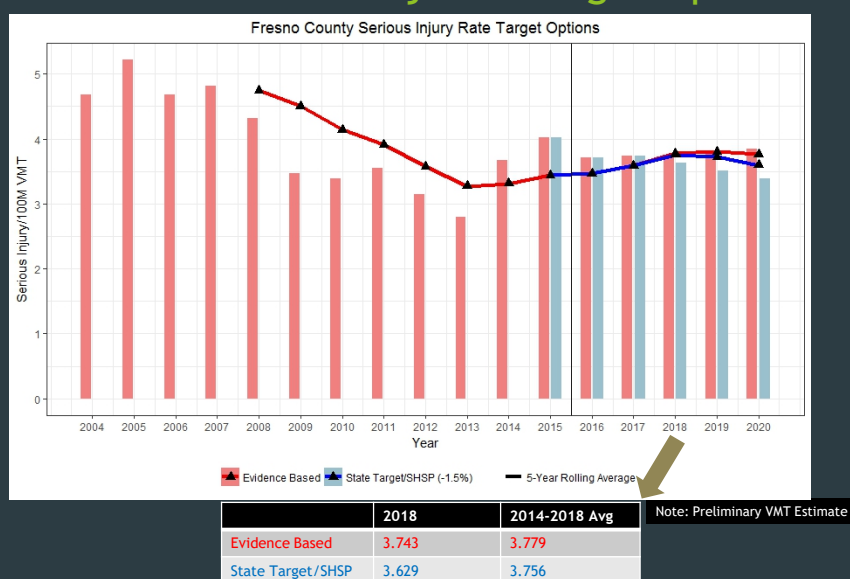
14

5. Total Non-Motorized Fatalities and Serious Injuries Target Options

Fresno County Ped/Bike Fatality and Serious Injury Target Options

	2018	2014-2018 Avg
Evidence Based	69	67.7
Vision Based	61	65.0
State Target	57	64.1