





#### Contents

Trauma Needs Assessment Review: Clark County	3
Trauma Needs Assessment Review: San Martin	28
Trauma Needs Assessment Review: Spring Valley	50
Trauma Needs Assessment Review: Centennial Hills	72
Trauma Needs Assessment Review: Mike O'Callaghan	94
Trauma Needs Assessment Review: Mountain View	116
Appendix A: Average 5-Year Population Growth Rate 2012-2017	138
Appendix B: Average Annual 5-Year Growth Rate by Zip Code in Clark County, 2012-2017	139
Appendix C: UMC TFTC Transports by Step 2015-2018	140
Appendix D: Sunrise TFTC Transports by Step 2015-2018	141
Appendix E: St. Rose - Siena TFTC Transports by Step 2015-2018	142
Appendix F: Trauma Registry Patients Living Outside of Clark County, NV 2014-2018	143
Appendix G: Needs Based Assessment of Trauma Systems (NBATS) by the American College of Surgeons for Clark County Trauma System	144



#### Trauma Needs Assessment Review: Clark County

1. Population	YES	NO
A. Is the Las Vegas valley population increasing?	$\checkmark$	
B. Is the Las Vegas Valley population projected to continue increasing?	$\checkmark$	
C. Is an area of the Las Vegas valley demonstrating population growth at a faster rate than the rest of the valley?	<b>√</b>	
D. Are areas of population growth projected to continue growing at a faster rate than the rest of the valley?	<b>√</b>	
E. Is there an increase in TFTC incidents in the area of population growth?	$\checkmark$	
F. Are the TFTC incidents for the appropriate step level increasing (Step III and IV patients for level III center, Step I and II patients for a level I or II center)?	<b>✓</b>	
G. Are incidents of patients meeting trauma criteria for the appropriate step level increasing at a non-trauma hospital (Step III or IV for level III, Step I or II for level I or II)?	✓	
Total for section 1	7	7

2. Median Transport Times	YES	NO
A. Is the Southern Nevada Trauma System demonstrating transport times greater than 15 minutes?	<b>√</b>	
B. Are transport times for the appropriate step level greater than 15 minutes (Step I, II, III, and IV for level I and II, Step III and IV only for level III)?	<b>√</b>	
C. Are transport times increasing for a population area demonstrating increasing growth?	<b>√</b>	
Total for section 2	3	}

3. Lead Agency / System Stakeholder / Community Support	YES	NO
A. Lead agency support is based on a demonstration of need for more trauma resources for the stability of the trauma system		
B. System stakeholder support requires 3 areas of support from the application region to receive from the areas listed below:		
i. Public provider of emergency 911 services		
ii. Private provider of emergency 911 services		
iii. Established trauma center		
iv. Non-trauma center hospital		
v. Other system stakeholders which include other healthcare industry related groups such as payors of medical benefits, educational institutions, healthcare, and social advocacy groups, and other relevant groups		
C. Appropriate state or local government support in the area of an applicant seeking to		
join the Southern Nevada Trauma System		
Total for section 3		



Note - The following section is to be completed only for applicants who are already established in the Southern Nevada Trauma System and are seeking out designation or upgrade.

4. Severely injured patients (ISS>15) discharged from acute care facilities not designated as a trauma center	YES	NO
A. Are the number of severely injured trauma patients being treated at a non-trauma center increasing?		
B. Are transfers into Southern Nevada Trauma Centers from non-trauma centers increasing?		
C. Are Step I and II incidents for current level III center catchment area increasing?		
Total for section 4		

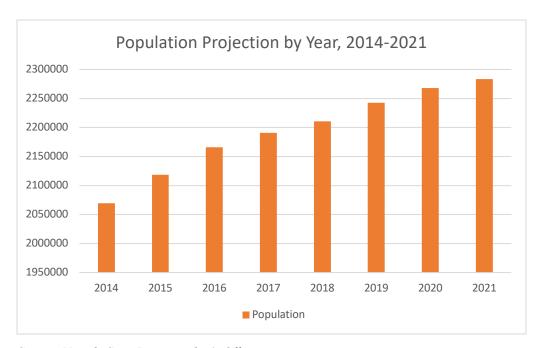
5. Trauma centers currently in the Las Vegas valley (2013-2018)	
A. UMC	
i. Lowest number of trauma cases	4542
ii. Highest number of trauma cases	8832
iii. Percentage of Step 1 and II patients	15.88%
B. Sunrise	
i. Lowest number of trauma cases	824
ii. Highest number of trauma cases	2496
iii. Percentage of Step 1 and II patients	24.20%
C. St. Rose Siena	
i. Lowest number of trauma cases	369
ii. Highest number of trauma cases	810
iii. Percentage of Step 1 and II patients	2.28%
Total for section 5	N/A

6. Any center seeking for an upgrade in designation must demonstrate substantial compliance with the requirements of the American College of Surgeons (ACS)		
Resources for The Optimal Care of Patients	YES	NO
Total for section 6	1	

Application Review: Scoring Needed Per Section	YES	NO
Section 1: A minimum of 5 "Yes" answers	7	
Section 2: A minimum of 2 "Yes" answers	3	
Section 3: A minimum of 2 "Yes" answers		
Section 4: A minimum of 1 "Yes" answers		
Section 5: A minimum of 1 "Yes" answers		
Section 6: A minimum of 1 "Yes" answers	1	



## 1A. Is the Las Vegas valley population increasing?1B. Is the Las Vegas valley population projected to continue increasing?



Source: Nevada State Demographer's Office



## 1C. Areas of the Las Vegas valley demonstrating population growth at a faster rate than the rest of the valley (5.86% 2014-2017)

Zip	<b>Growth Rate from</b>	Zip Code	<b>Growth Rate from</b>
Code	2014 - 2017		2014 - 2017
89002	7.04	89113	29.76
89004	7.72	89121	6.75
89011	20.14	89122	7.85
89012	12.26	89135	12.98
89027	12.49	89138	25.74
89029	8.57	89139	17.58
89031	5.92	89141	16.48
89034	43.01	89147	8.37
89044	22.09	89148	32.23
89046	6.86	89149	13.96
89052	6.56	89166	35.35
89074	7.99	89178	19.04
89081	12.45	89179	54.16
89084	11.31		

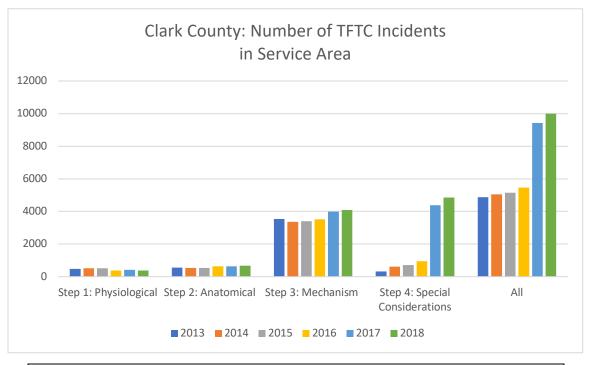


## 1D. Are areas of population growth projected to continue growing at a faster rate than the rest of the valley?

Zip	<b>Growth Rate from</b>	Zip	<b>Growth Rate from</b>
Code	2014-2017	Code	2014-2017
89002	7.04	89113	29.76
89004	7.72	89121	6.75
89011	20.14	89122	7.85
89012	12.26	89135	12.98
89027	12.49	89138	25.74
89029	8.57	89139	17.58
89031	5.92	89141	16.48
89034	43.01	89147	8.37
89044	22.09	89148	32.23
89046	6.86	89149	13.96
89052	6.56	89166	35.35
89074	7.99	89178	19.04
89081	12.45	89179	54.16
89084	11.31		



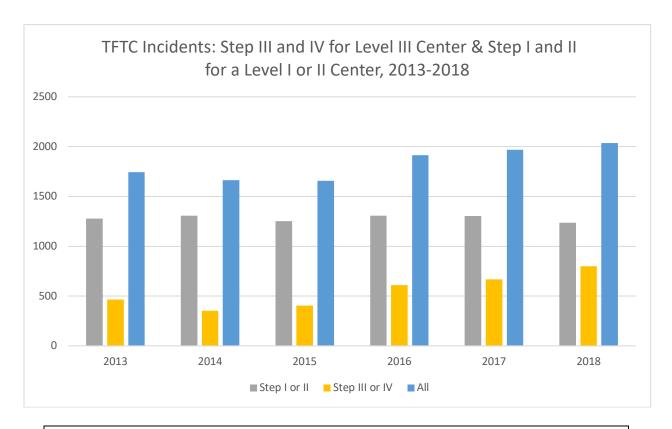
#### 1E. Number of TFTC Incidents in Service Area



Number of TFTC Incidents in Service Area						
	2013	2014	2015	2016	2017	2018
Step 1: Physiological	476	524	514	385	421	385
Step 2: Anatomical	548	545	526	630	631	669
Step 3: Mechanism	3541	3367	3392	3514	3995	4096
Step 4: Special Considerations	314	610	710	939	4387	4848
All	4879	5046	5142	5468	9434	10000



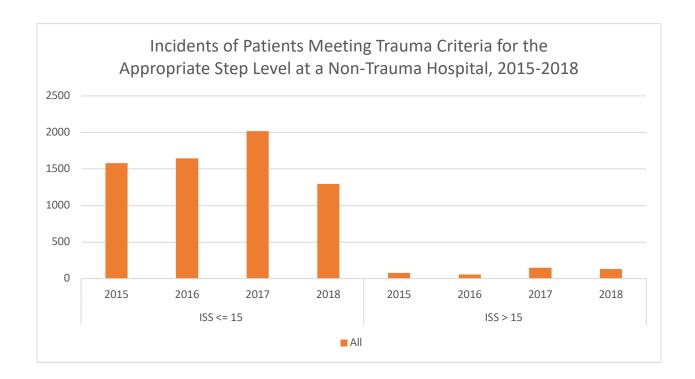
## 1F. Are the TFTC incidents for the appropriate step level increasing Step III and IV patients for a Level III center, Step 1 and 2 patients for a Level I or II center?



TFTC Incidents: Step III and IV for Level III Center & Step I and II for a Level I or II Center, 2013-2018						
2013 2014 2015 2016 2017 2018						
Step 1 or 2	1279	1308	1253	1306	1303	1237
Step 3 or 4	466	354	404	609	666	799
Total	1745	1662	1657	1915	1969	2036



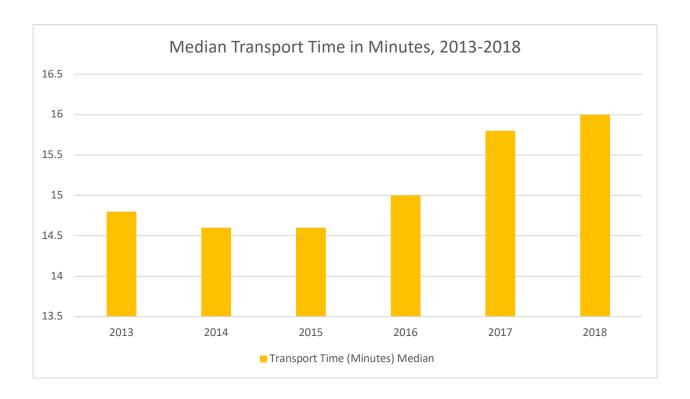
# 1G. Incidents of Patients Meeting Trauma Criteria for the Appropriate Step Level Increasing at a Non-Trauma Hospital



Incid	Incidents of Patients Meeting Trauma Criteria for the Appropriate Step Level at a Non-Trauma Hospital, 2015-2018								
	ISS <= 15				ISS > 15				
	2015	2016	2017	2018	2015	2016	2017	2018	
All	1580	1644	2016	1295	79	57	149	131	



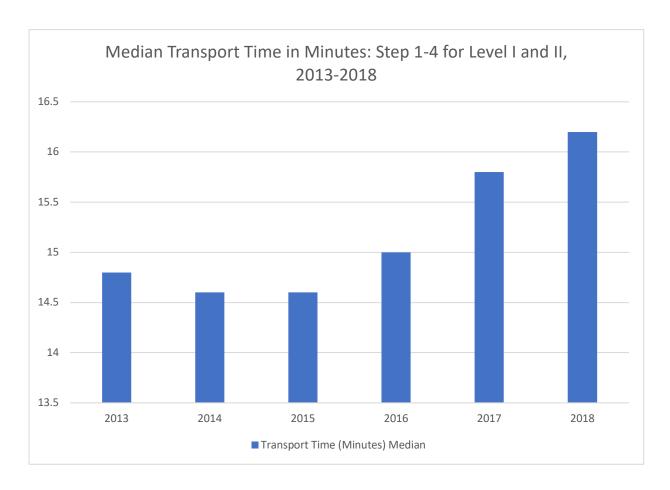
#### 2A. Are TFTC Transport Times Increasing for a Population Demonstrating Growth?



Median Tı	ransport Ti	me in M	inutes, 2	2013-20	18		
		2013	2014	2015	2016	2017	2018
Transport Time (Minutes)	N	5394	5577	5748	6424	10676	11464
	Median	14.80	14.60	14.60	15.00	15.80	16.00



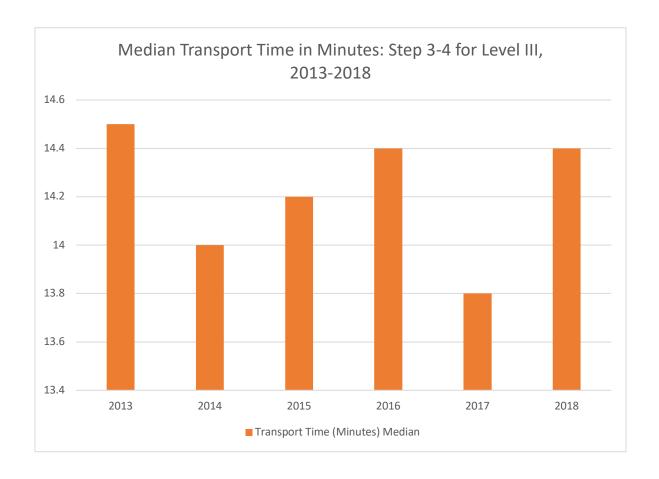
#### 2B. Median Transport Time by Year: Step 1-4 for Level I and II, 2013-2018



Median Transport Time in Minutes: Step 1-4 for Level I and II, 2013-2018							
		2013	2014	2015	2016	2017	2018
Transport Time (Minutes)	N	4942	5252	5361	5842	9993	10663
	Median	14.80	14.60	14.60	15.00	15.80	16.20



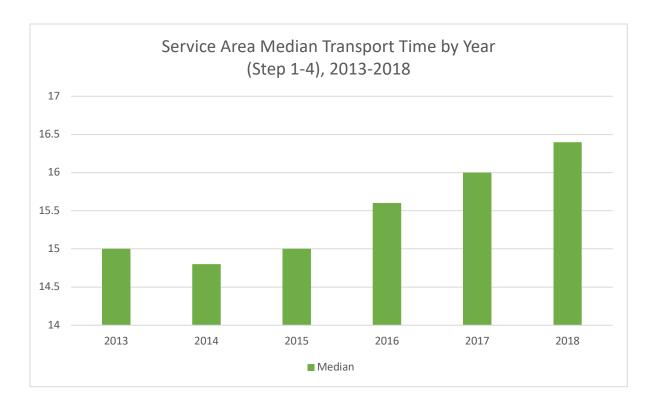
#### 2B. Median Transport Time by Year: Step 3-4 for Level III, 2013-2018



Median Transport Time by Year: Step 3-4 for Level III, 2013-2018							
		2013	2014	2015	2016	2017	2018
Transport Time (Minutes)	N	438	312	371	579	666	790
	Median	14.50	14.00	14.20	14.40	13.80	14.40



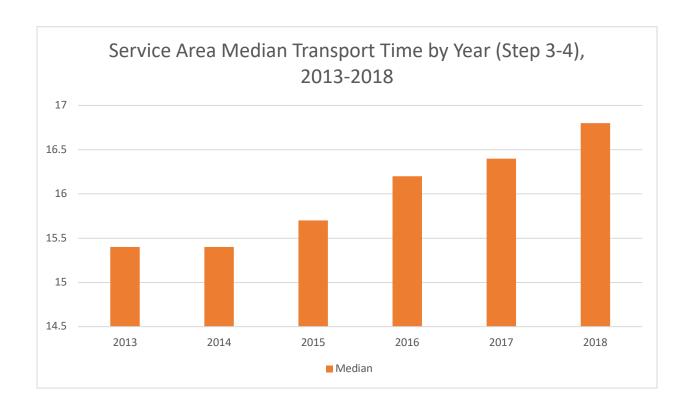
#### 2C. Service Area Median Transport Time by Year: Step 1-4, 2013-2018



Serv	Service Area Median Transport Time by Year (Step 1-4), 2013-2018							
		2013	2014	2015	2016	2017	2018	
Transport Time (Minutes)	N	4784	4924	5055	5439	9403	9986	
	Median	15.00	14.80	15.00	15.60	16.00	16.40	



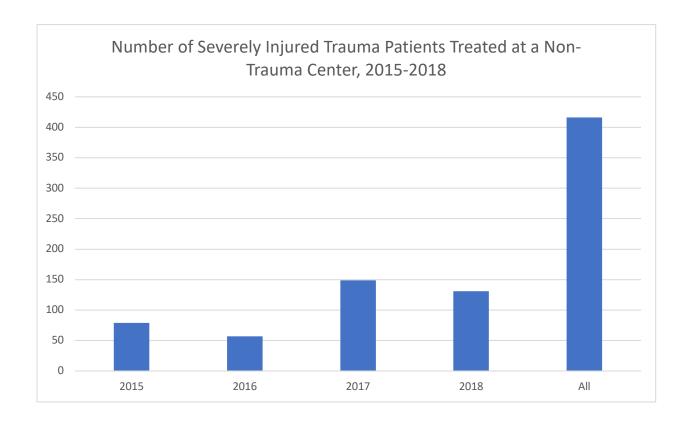
#### 2C. Service Area Median Transport Time by Year: Step 3-4, 2013-2018



		2013	2014	2015	2016	2017	2018
Transport Time (Minutes)	N	3781	3883	4028	4428	8356	8931
	Median	15.40	15.40	15.70	16.20	16.40	16.80



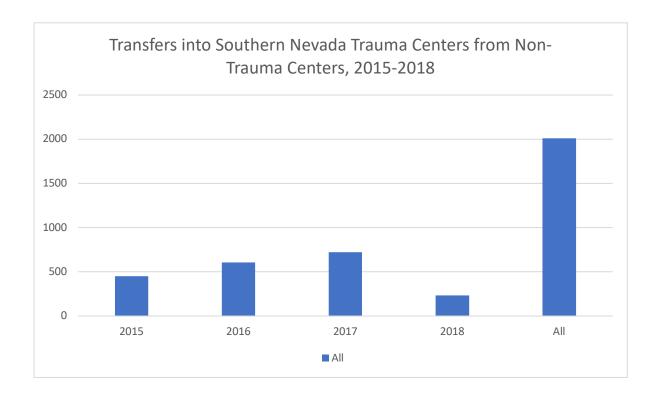
# **4A.** Number of Severely Injured Trauma Patients Treated at a Non-Trauma Center, 2015-2018



Nui	Number of Severely Injured Trauma Patients Treated at a Non-Trauma Center, 2015-2018							
	2015 2016 2017 2018 All							
All	79	57	149	131	416			



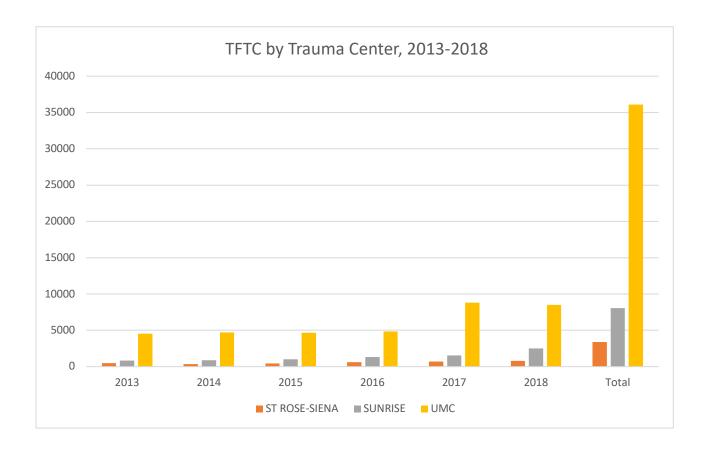
#### 4B. Transfers into Southern Nevada Trauma Centers from Non-Trauma Centers, 2015-2018



Transfe	ers into Southe		uma Centers fr 5-2018	om Non-Traur	na Centers,
	2015	2016	2017	2018	All
All	452	605	721	232	2010



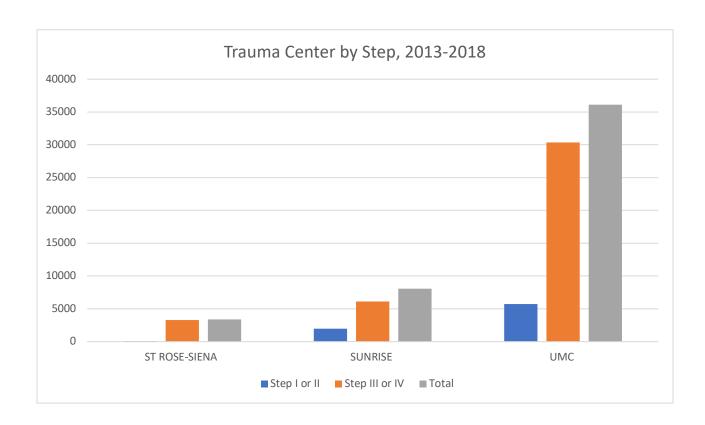
#### 5. TFTC by Trauma Centers, 2013-2018



TF	TFTC by Trauma Centers, 2013-2018									
	2013	2014	2015	2016	2017	2018	All			
ST ROSE-SIENA	482	369	421	612	683	810	3377			
SUNRISE	824	882	1001	1322	1545	2496	8070			
UMC	4542	4724	4687	4836	8832	8485	36106			

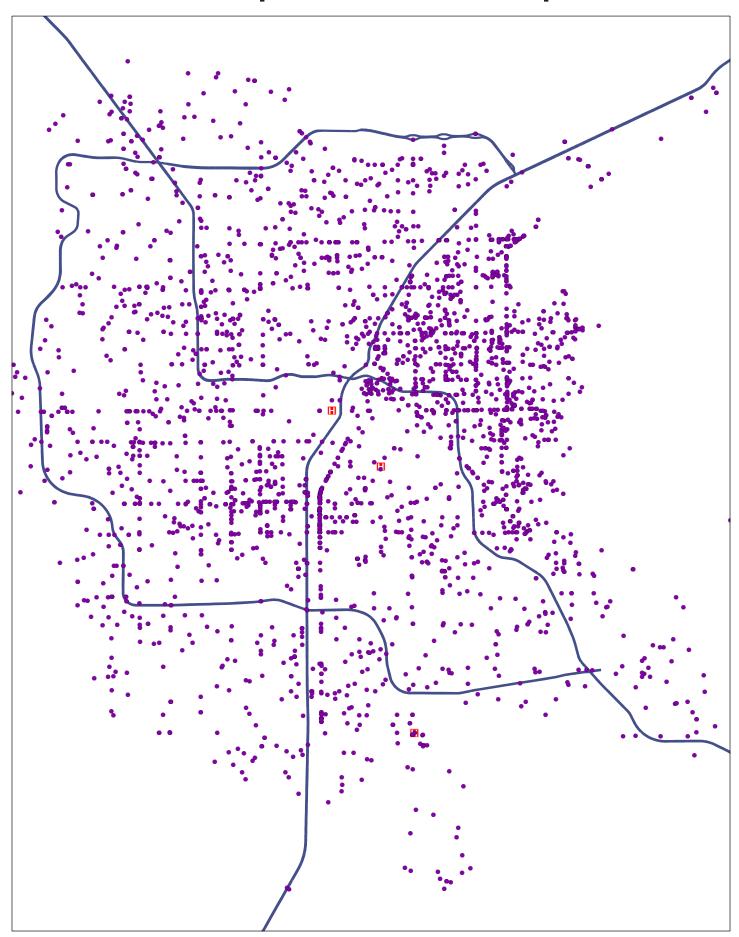


#### 5. Trauma Centers by Year Currently in the Las Vegas Valley, 2013-2018

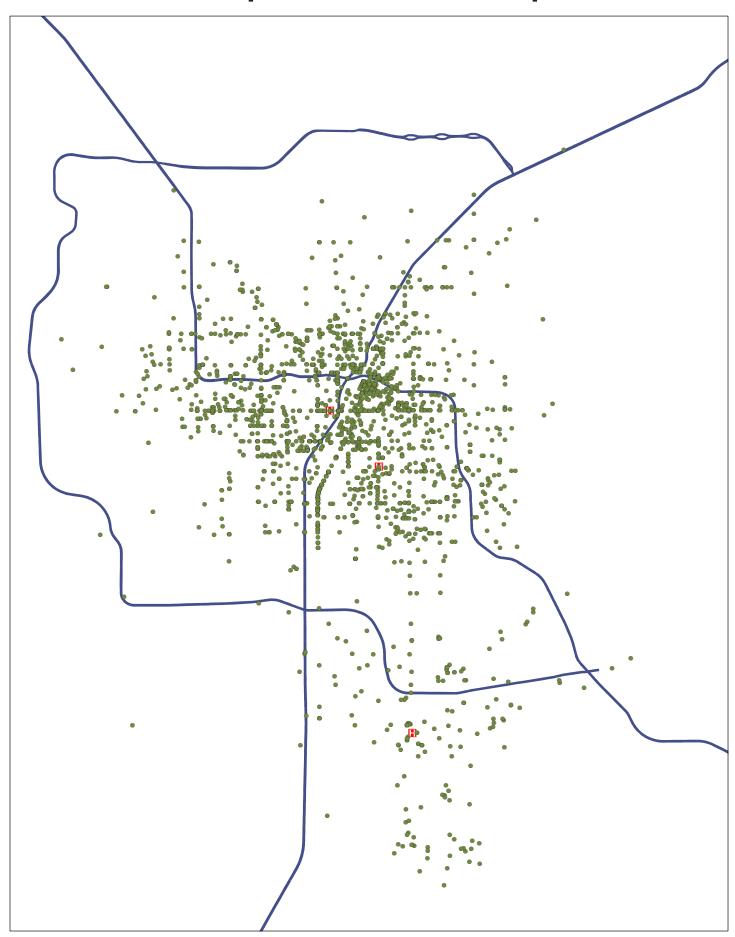


Trauma Centers by Year	r Currently in the I	Las Vegas Valley, 20	13-2018
	Step 1 or 2	Step 3 or 4	All
ST ROSE-SIENA	77	3300	3377
SUNRISE	1953	6114	8070
UMC	5733	30373	36106

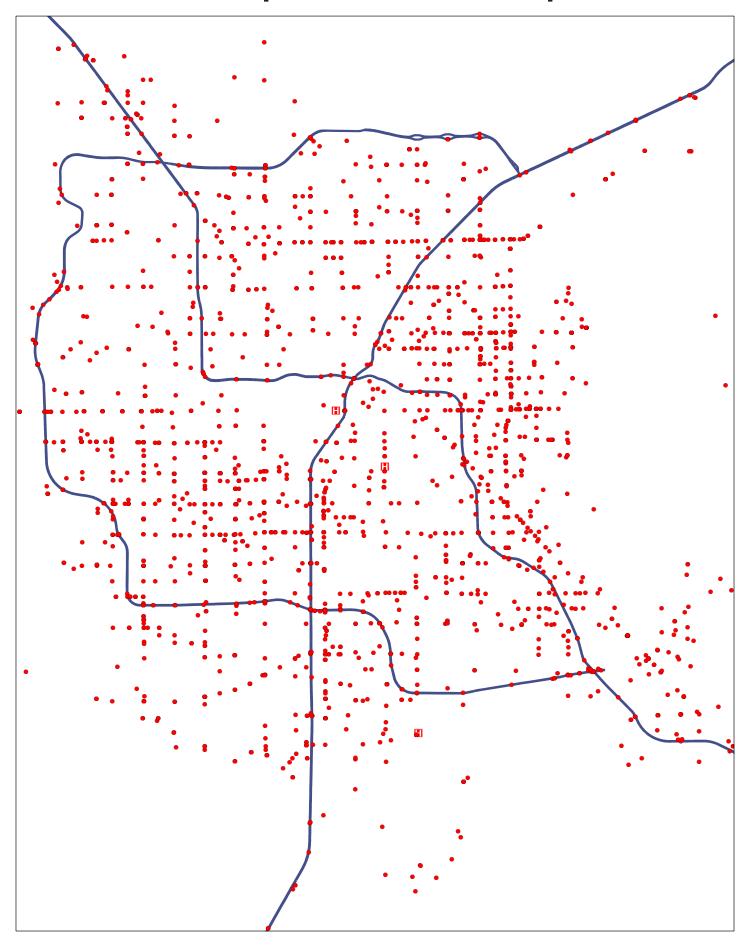
**TFTC Transport Time 2018 Step 4 > 15** 



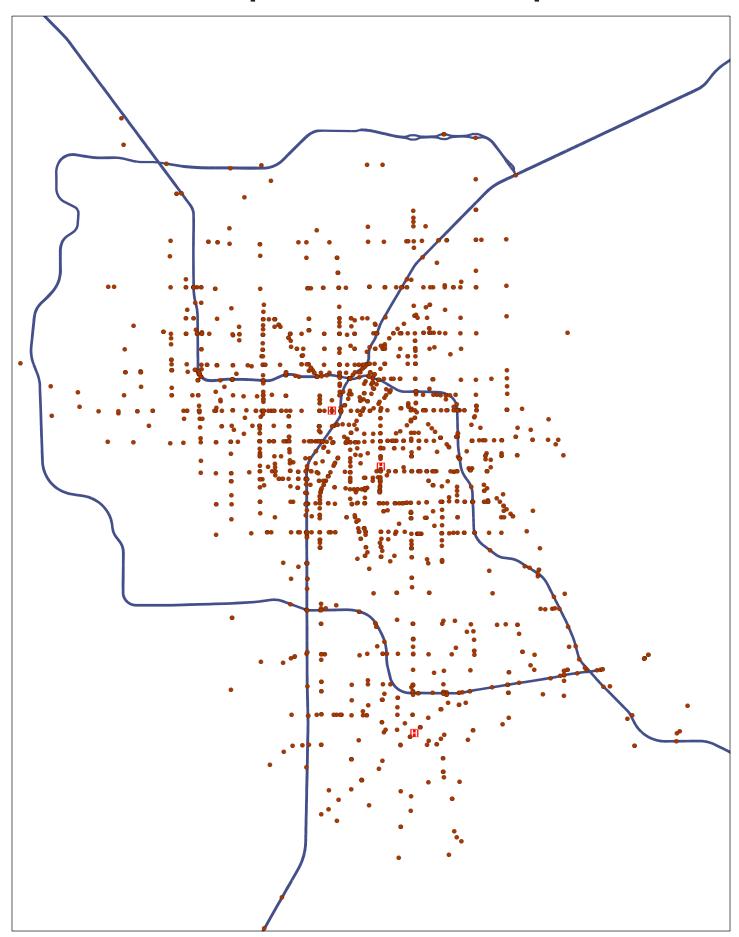
TFTC Transport Time 2018 Step 4 <= 15



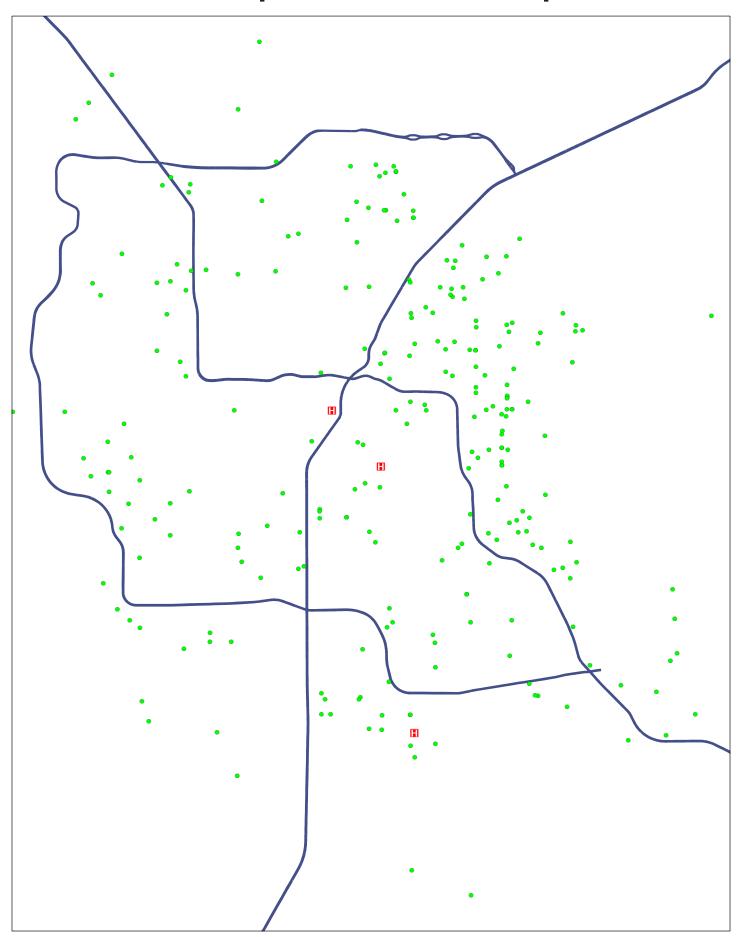
**TFTC Transport Time 2018 Step 3 > 15** 



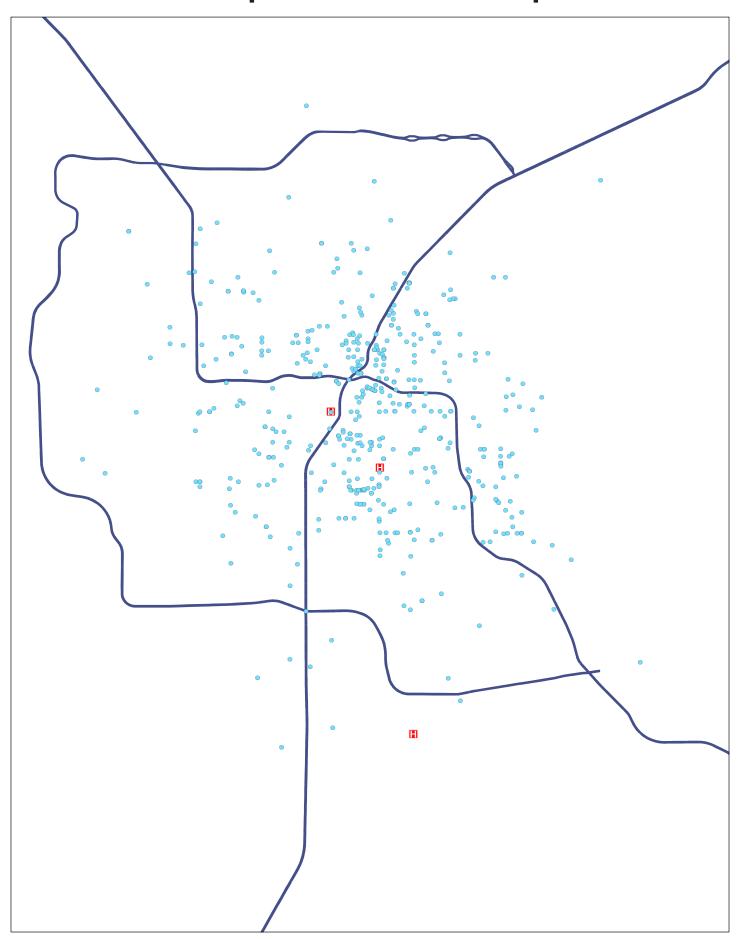
TFTC Transport Time 2018 Step 3 <= 15



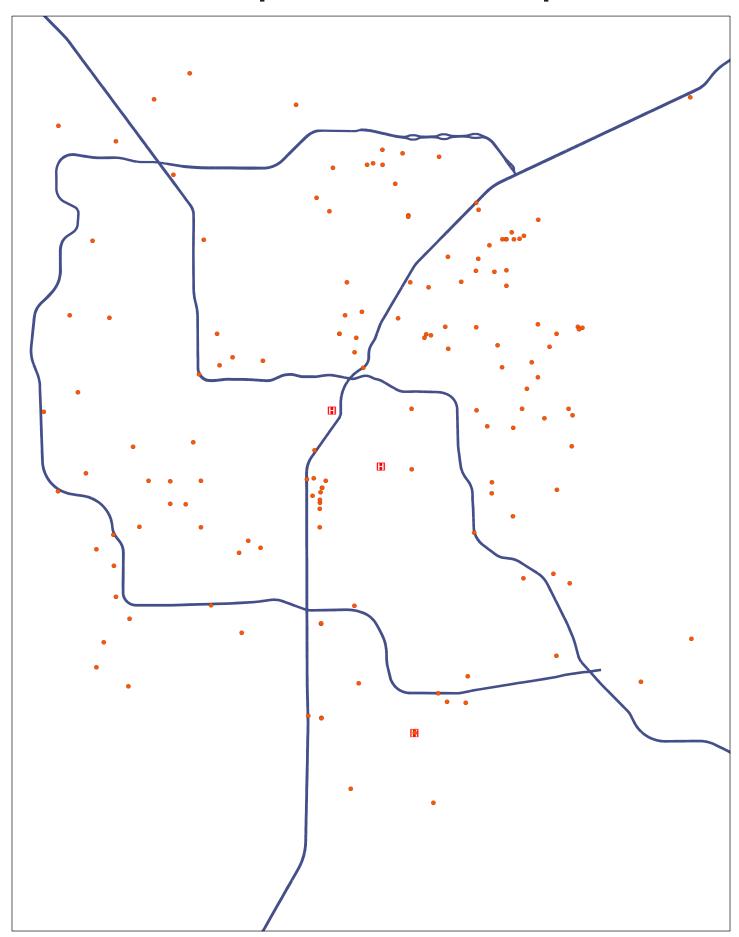
**TFTC Transport Time 2018 Step 2 > 15** 



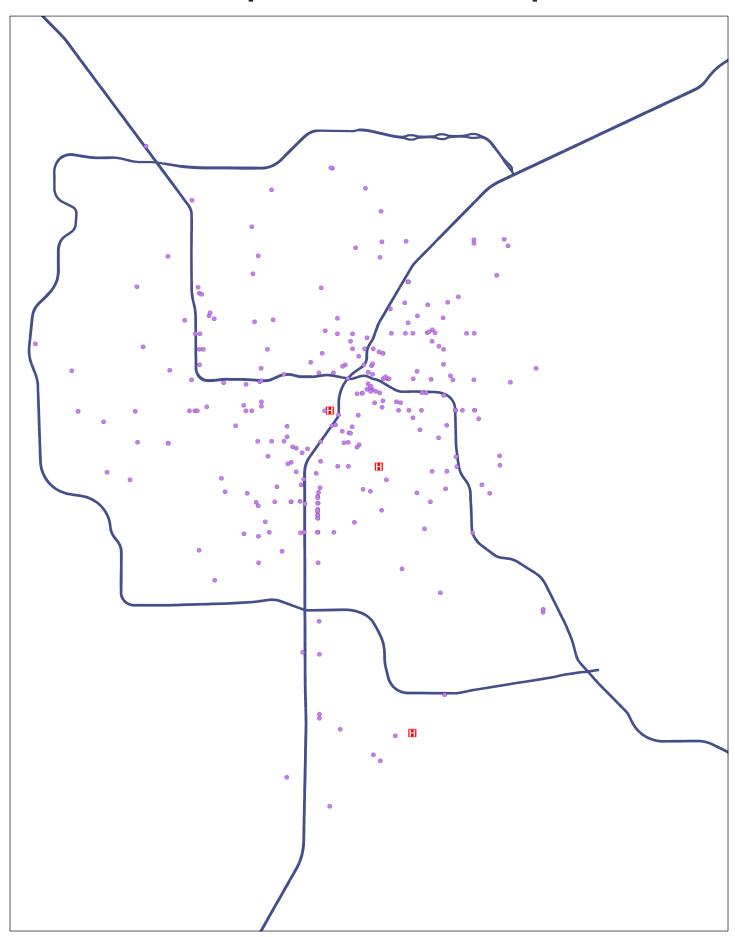
TFTC Transport Time 2018 Step 2 <= 15



**TFTC Transport Time 2018 Step 1 > 15** 



TFTC Transport Time 2018 Step 1 <= 15





Trauma Needs Assessment Review: San Martin		
1. Population	YES	NO
A. Is the Las Vegas valley population increasing?	<b>√</b>	
B. Is the Las Vegas Valley population projected to continue increasing?	<b>✓</b>	
C. Is an area of the Las Vegas valley demonstrating population growth at a faster rate than the rest of the valley?	✓	
D. Are areas of population growth projected to continue growing at a faster rate than the rest of the valley?	✓	
E. Is there an increase in TFTC incidents in the area of population growth?	<b>✓</b>	
F. Are the TFTC incidents for the appropriate step level increasing (Step III and IV patients for level III center, Step I and II patients for a level I or II center)?	<b>√</b>	
G. Are incidents of patients meeting trauma criteria for the appropriate step level increasing at a non-trauma hospital (Step III or IV for level III, Step I or II for level I or II)?	<b>√</b>	
Total for section 1	7	'

2. Median Transport Times	YES	NO
A. Is the Southern Nevada Trauma System demonstrating transport times greater than 15		
minutes?	✓	
B. Are transport times for the appropriate step level greater than 15 minutes (Step I, II, III, and		
IV for level I and II, Step III and IV only for level III)?	$\checkmark$	
C. Are transport times increasing for a population area demonstrating increasing growth?	<b>√</b>	
Total for section 2	3	

3. Lead Agency / System Stakeholder / Community Support	YES	NO
A. Lead agency support is based on a demonstration of need for more trauma resources for the stability of the trauma system		
B. System stakeholder support requires 3 areas of support from the application region to receive from the areas listed below:		
i. Public provider of emergency 911 services		
ii. Private provider of emergency 911 services		
iii. Established trauma center		
iv. Non-trauma center hospital		
v. Other system stakeholders which include other healthcare industry related groups such as payors of medical benefits, educational institutions, healthcare, and social advocacy groups, and other relevant groups		
C. Appropriate state or local government support in the area of an applicant seeking to join the Southern Nevada Trauma System		
Total for section 3		

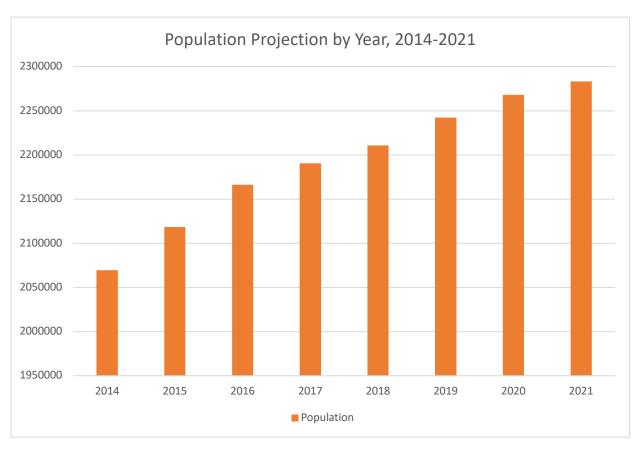


Note - The following section is to be completed only for applicants who are already established in the Southern Nevada Trauma System and are seeking out designation or upgrade.

4. Severely injured patients (ISS>15) discharged from acute care facilities not designated as a trauma center	YES	NO
A. Are the number of severely injured trauma patients being treated at a non-trauma center increasing?		<u> </u>
B. Are transfers into Southern Nevada Trauma Centers from non-trauma centers increasing?  C. Are Step I and II incidents for current level III center catchment area increasing?		<u> </u>
Total for section 4		
5. Trauma centers currently in the Las Vegas valley		
A. UMC		
i. Lowest number of trauma cases	4542	
ii. Highest number of trauma cases	8832	
iii. Percentage of Step 1 and II patients	15.88%	<b>%</b>
B. Sunrise		
i. Lowest number of trauma cases	824	
ii. Highest number of trauma cases	2496	
iii. Percentage of Step 1 and II patients	24.20	<b>%</b>
C. St. Rose Siena		
i. Lowest number of trauma cases	369	
ii. Highest number of trauma cases	810	
iii. Percentage of Step 1 and II patients	2.28%	)
Total for section 5	N/A	
6. Any center seeking for an upgrade in designation must demonstrate substantial compliance with the requirements of the American College of Surgeons (ACS) Resources		
for The Optimal Care of Patients	YES	N(
Total for section 6		1
Application Review: Scoring Needed Per Section	YES	NO
Section 1: A minimum of 5 "Yes" answers	7	
Section 2: A minimum of 2 "Yes" answers	3	
Section 3: A minimum of 2 "Yes" answers		
Section 4: A minimum of 1 "Yes" answers		
Section 5: A minimum of 1 "Yes" answers		<u> </u>
Section 6: A minimum of 1 "Yes" answers	1	



- 1A. Is the Las Vegas valley population increasing?
- 1B. Is the Las Vegas valley population projected to continue increasing?



Source: Nevada State Demographer's Office



1C. Areas of the Las Vegas valley demonstrating population growth at a faster rate than the rest of the valley (5.86% 2014-2017)

Zip Code	Growth Rate from 2014-2017
89113	29.76
89135	12.98
89139	17.58
89141	16.48
89147	8.37
89148	32.23
89178	19.04
89179	54.16

Note: San Martin service area includes the following zip codes: 89148, 89139, 89178, 89179, 89141, 89113, 89135, 89118, 89117, 89147, and 89103.



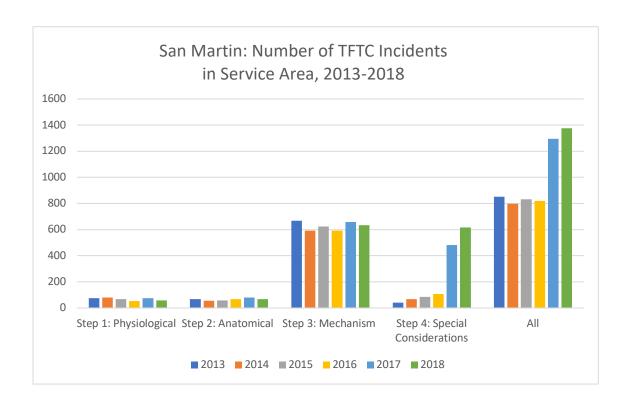
1D. Are areas of population growth projected to continue growing at a faster rate than the rest of the valley?

Zip Code	Growth Rate from 2014-2017
89113	29.76
89135	12.98
89139	17.58
89141	16.48
89147	8.37
89148	32.23
89178	19.04
89179	54.16

Note: San Martin service area includes the following zip codes: 89148, 89139, 89178, 89179, 89141, 89113, 89135, 89118, 89117, 89147, and 89103.



#### 1E. Number of TFTC Incidents in Service Area



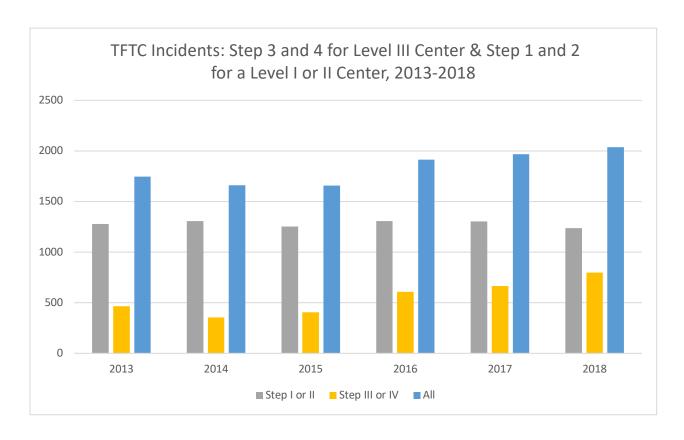
San Martin: Number of TFTC Incidents in Service Area, 2013-2018								
2013   2014   2015   2016   2017								
Step 1: Physiological	76	81	67	53	76	58		
Step 2: Anatomical	67	55	58	68	79	68		
Step 3: Mechanism	667	593	623	591	659	634		
Step 4: Special Considerations	42	68	85	108	482	617		
All	852	797	833	820	1296	1377		

Note: San Martin service area includes the following zip codes: 89148, 89139, 89178, 89179, 89141, 89113, 89135, 89118, 89117, 89147, and 89103.



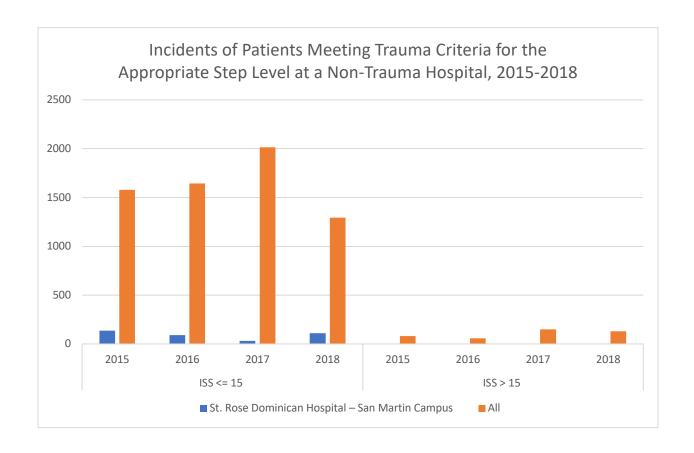
# 1F. Are the TFTC incidents for the appropriate step level increasing Step III and IV patients for a Level III center, Step 1 and 2 patients for a Level I or II center?

	TFTC Incidents: Step 3 and 4 for Level III Center & Step 1 and 2 for a Level I or II Center,									
2013-2018										
2013 2014 2015 2016 2017 2018										
1279	1308	1253	1306	1303	1237					
466	354	404	609	666	799					
1745	1662	1657	1915	1969	2036					
	1279 466	2013         2014           1279         1308           466         354	2013         2014         2015           1279         1308         1253           466         354         404	2013         2014         2015         2016           1279         1308         1253         1306           466         354         404         609	2013         2014         2015         2016         2017           1279         1308         1253         1306         1303           466         354         404         609         666					





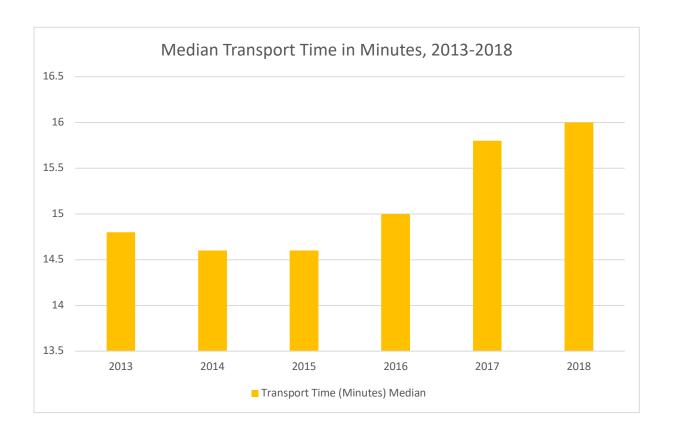
# 1G. Incidents of Patients Meeting Trauma Criteria for the Appropriate Step Level Increasing at a Non-Trauma Hospital



Incidents of Patients Meeting Trauma Criteria for the Appropriate Step Level at a Non-Trauma Hospital, 2015-2018								
ISS <= 15 ISS > 15								
	2015	2016	2017	2018	2015	2016	2017	2018
St. Rose Dominican Hospital – San	135	90	32	109	1			2
Martin Campus								
All	1580	1644	2016	1295	79	57	149	131



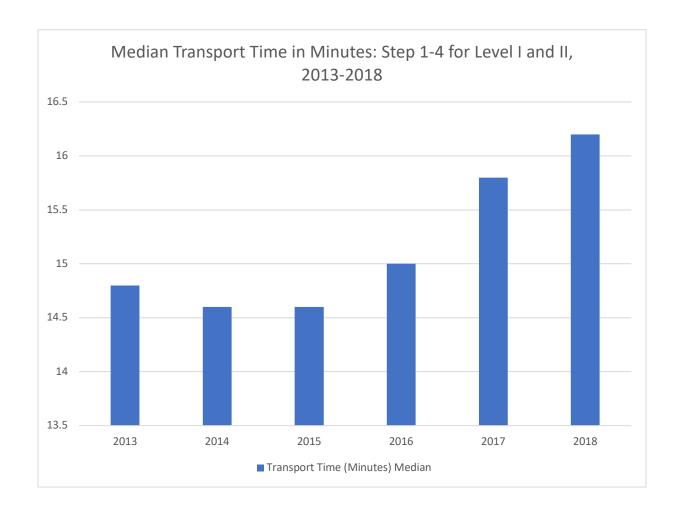
#### 2A. Are TFTC Transport Times Increasing for a Population Demonstrating Growth?



Median Transport Time in Minutes, 2013-2018									
		2013	2014	2015	2016	2017	2018		
	_								
Transport Time (Minutes)	N	5394	5577	5748	6424	10676	11464		
	Median	14.80	14.60	14.60	15.00	15.80	16.00		



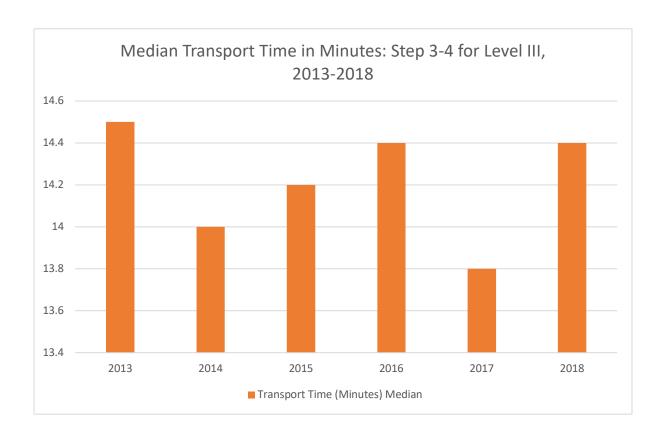
#### 2B. Median Transport Time by Year: Step 1-4 for Level I and II, 2013-20



Median Transport Time by Year (Step 1-4) For Levels I-II, 2013-2018								
		2013	2014	2015	2016	2017	2018	
Transport Time (Minutes)	N	4942	5252	5361	5842	9993	10663	
	Median	14.80	14.60	14.60	15.00	15.80	16.20	



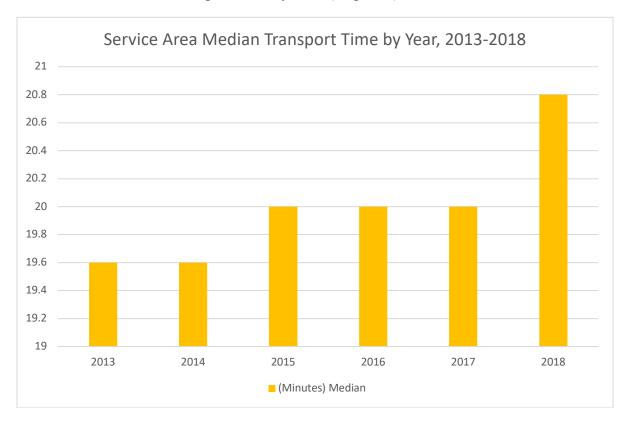
#### 2B. Median Transport Time by Year: Step 3-4 for Level III, 2013-2018



Median Transport Time by Year: Step 3-4 for Level III, 2013-2018								
		2013	2014	2015	2016	2017	2018	
Transport Time (Minutes)	N	438	312	371	579	666	790	
	Median	14.50	14.00	14.20	14.40	13.80	14.40	



#### 2C. Service Area Median Transport Time by Year (Steps 1-4), 2013-2018

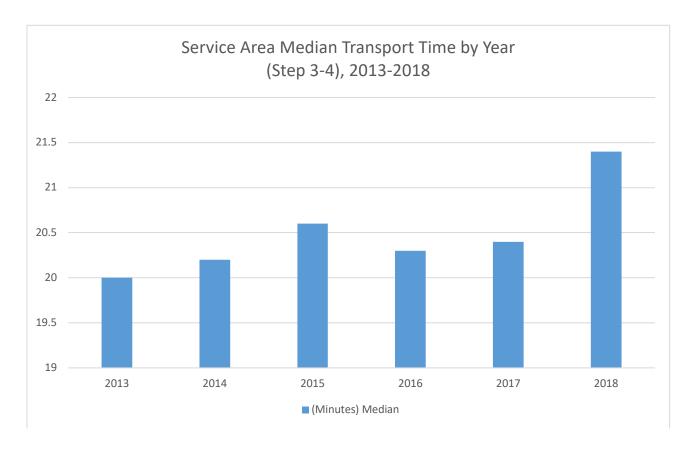


Service Area Median Transport Time by Year (Steps 1-4), 2013-2018								
		2013	2014	2015	2016	2017	2018	
Transport Time (Minutes)	N	843	794	830	817	1294	1375	
	Median	19.60	19.60	20.00	20.00	20.00	20.80	

Note: San Martin service area includes the following zip codes: 89148, 89139, 89178, 89179, 89141, 89113, 89135, 89118, 89117, 89147, and 89103.



#### 2C. Service Area Median Transport Time by Year (Step 3-4), 2013-2018

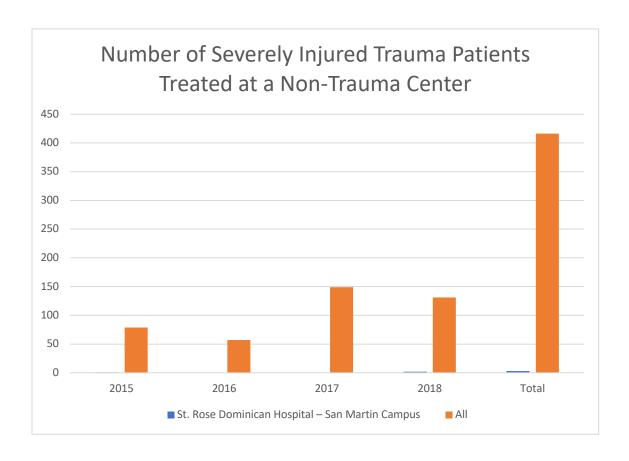


Service Area Median Transport Time by Year (Step 3-4), 2013-2018								
		2013	2014	2015	2016	2017	2018	
Transport Time (Minutes)	N	703	659	705	696	1139	1249	
	Median	20.00	20.20	20.60	20.30	20.40	21.40	

Note: San Martin service area includes the following zip codes: 89148, 89139, 89178, 89179, 89141, 89113, 89135, 89118, 89117, 89147, and 89103.



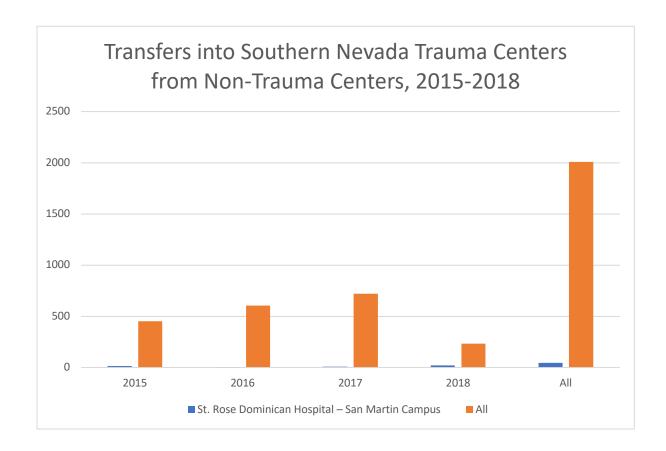
## 4A. Are the Number of Severely Injured Trauma Patients being treated at a Non-Trauma Center Increasing, 2015-2018?



Number of Severely Injured Trauma Patients Treated at a Non-Trauma Center						
	2015	2016	2017	2018	Total	
St. Rose Dominican Hospital – San Martin Campus	1	•		2	3	
All	79	57	149	131	416	



4B. Transfers into Southern Nevada Trauma Centers from Non-Trauma Centers, 2015-2018



Transfers into Southern Nevada Trauma Centers from Non-Trauma Centers, 2015-2018							
	2015	2016	2017	2018	All		
St. Rose Dominican Hospital – San Martin Campus	15	4	8	20	47		
All	452	605	721	232	2010		

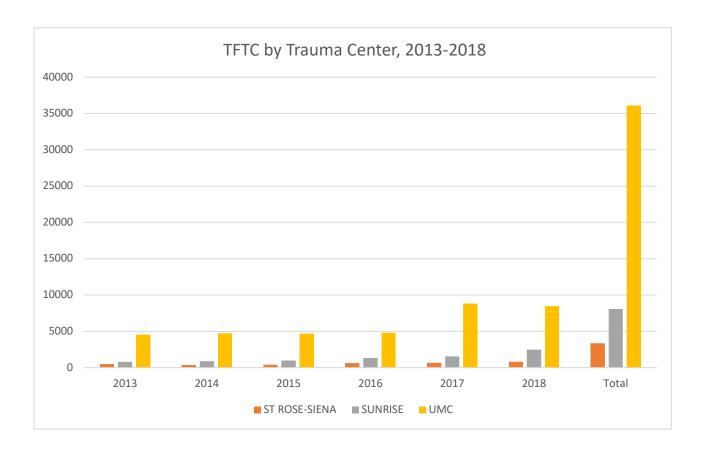


4C. Are Step 1 and/or Step 2 TFTC incidents for the current Level III center catchment area increasing?

Year Sent	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2014	104	35.86	104	35.86
2016	96	33.10	200	68.97
2017	90	31.03	290	100.00



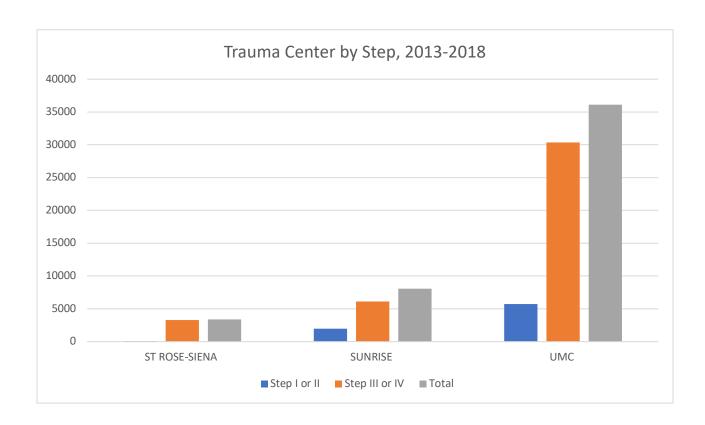
#### 5. TFTC by Trauma Centers, 2013-2018



TFTC by Trauma Centers, 2013-2018								
	2013	2014	2015	2016	2017	2018	All	
ST ROSE-SIENA	482	369	421	612	683	810	3377	
SUNRISE	824	882	1001	1322	1545	2496	8070	
UMC	4542	4724	4687	4836	8832	8485	36106	

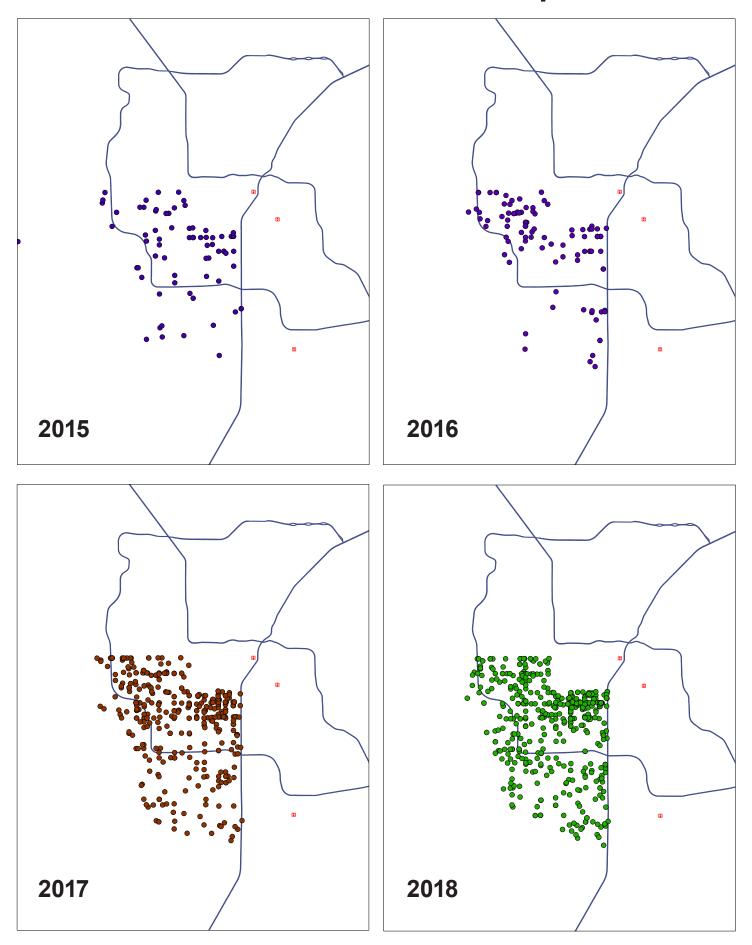


#### 5. Trauma Centers by Year Currently in the Las Vegas Valley, 2013-2018

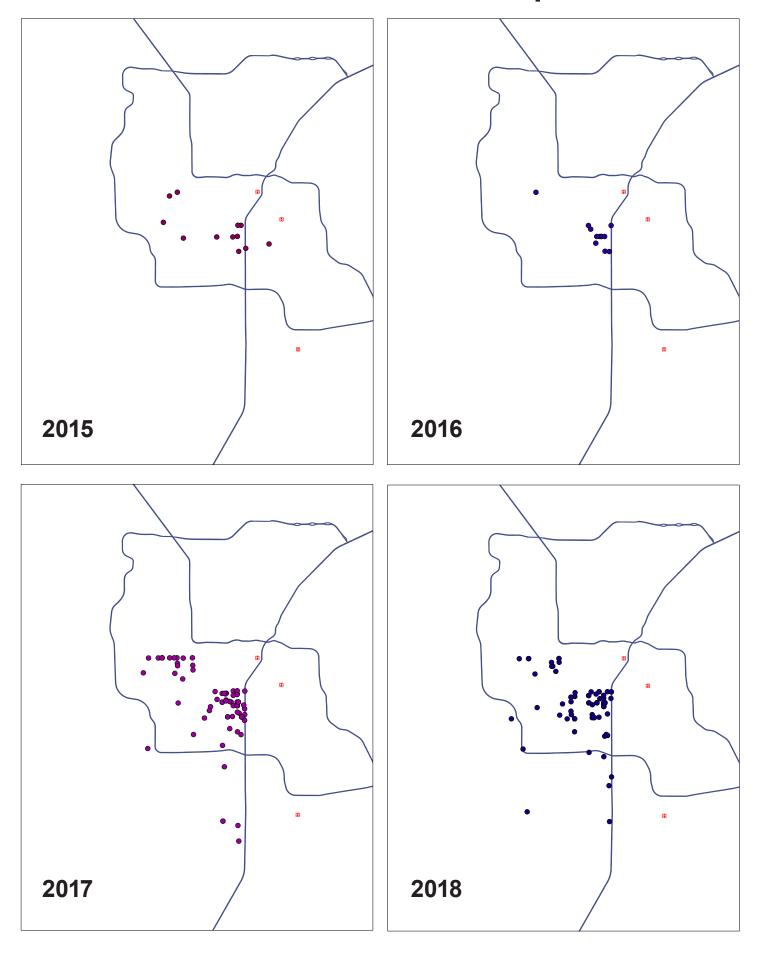


Trauma Centers by Year Currently in the Las Vegas Valley, 2013-2018						
	Step 1 or 2	Step 3 or 4	All			
ST ROSE-SIENA	77	3300	3377			
SUNRISE	1953	6114	8070			
UMC	5733	30373	36106			

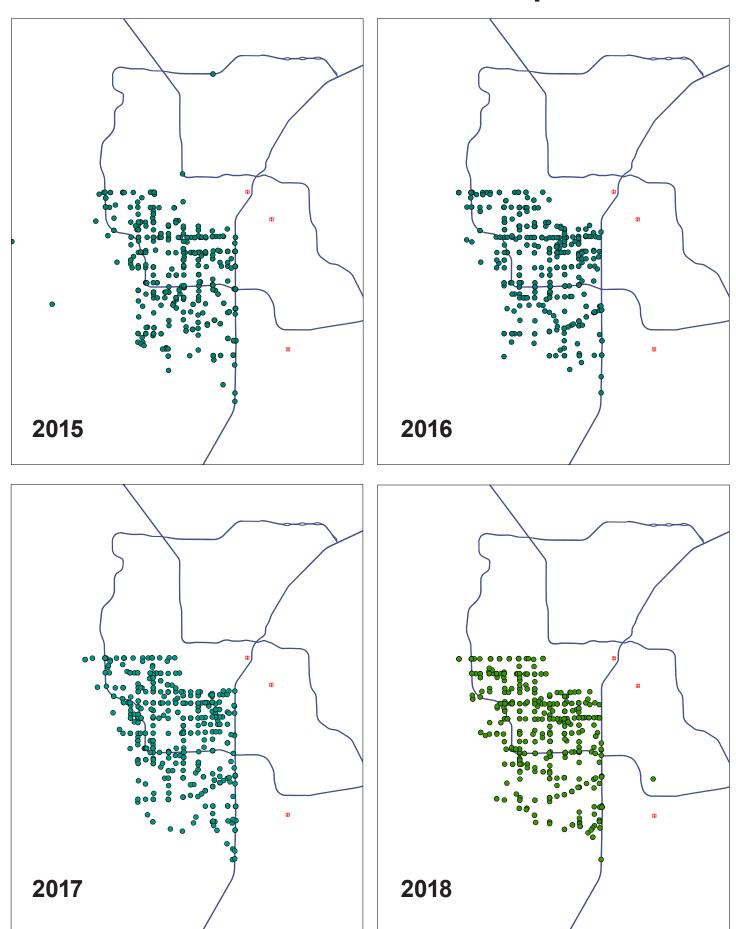
## **SAN MARTIN: TFTC Time Step 4 > 15**



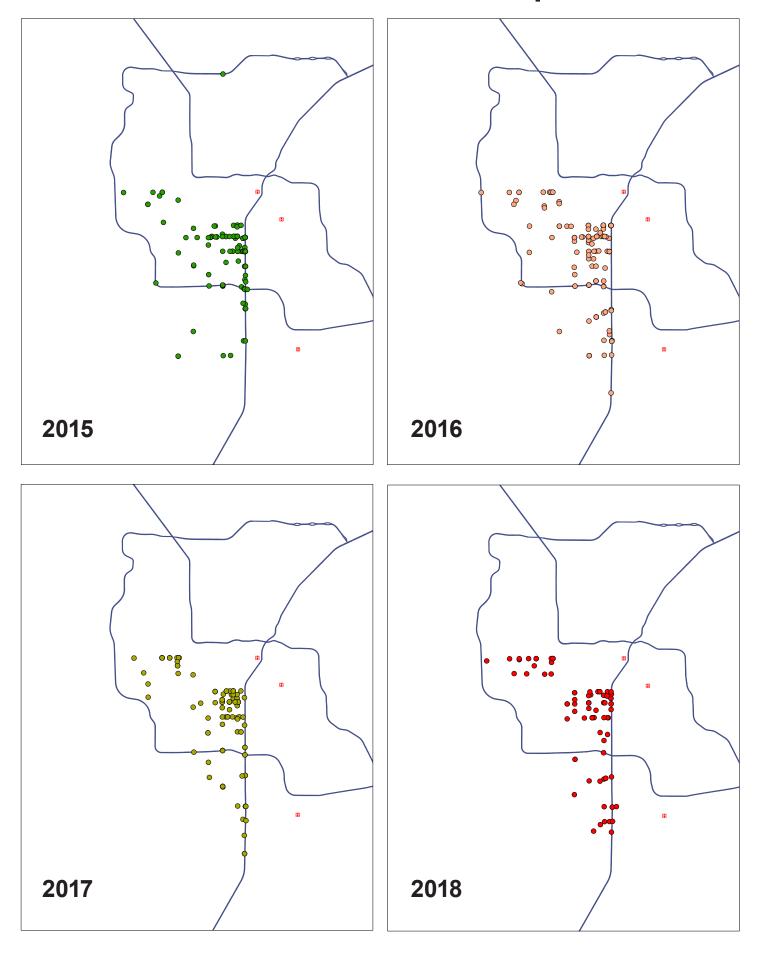
## SAN MARTIN: TFTC Time Step 4 <= 15



## **SAN MARTIN: TFTC Time Step 3 > 15**



## SAN MARTIN: TFTC Time Step 3 <= 15





Trauma Needs Assessment Review: Spring Valley		
1. Population	YES	NO
A. Is the Las Vegas valley population increasing?	$\checkmark$	
B. Is the Las Vegas Valley population projected to continue increasing?	<b>√</b>	
C. Is an area of the Las Vegas valley demonstrating population growth at a faster rate than the rest of the valley?	<b>√</b>	
D. Are areas of population growth projected to continue growing at a faster rate than the rest of the valley?	<b>√</b>	
E. Is there an increase in TFTC incidents in the area of population growth?	$\checkmark$	
F. Are the TFTC incidents for the appropriate step level increasing (Step III and IV patients for level III center, Step I and II patients for a level I or II center)?	<b>√</b>	
G. Are incidents of patients meeting trauma criteria for the appropriate step level increasing at a non-trauma hospital (Step III or IV for level III, Step I or II for level I or II)?	<i></i>	
Total for section 1	7	

2. Median Transport Times	YES	NO
A. Is the Southern Nevada Trauma System demonstrating transport times greater than 15 minutes?	✓	
B. Are transport times for the appropriate step level greater than 15 minutes (Step I, II, III, and IV for level I and II, Step III and IV only for level III)?	<b>√</b>	
C. Are transport times increasing for a population area demonstrating increasing growth?	<b>√</b>	
Total for section 2	3	•

3. Lead Agency / System Stakeholder / Community Support	YES	NO
A. Lead agency support is based on a demonstration of need for more trauma resources for the stability of the trauma system		
B. System stakeholder support requires 3 areas of support from the application region to receive from the areas listed below:		
i. Public provider of emergency 911 services		
ii. Private provider of emergency 911 services		
iii. Established trauma center		
iv. Non-trauma center hospital		
v. Other system stakeholders which include other healthcare industry related groups such as payors of medical benefits, educational institutions, healthcare, and social advocacy groups, and other relevant groups		
C. Appropriate state or local government support in the area of an applicant seeking to join the Southern Nevada Trauma System		
Total for section 3		



Note - The following section is to be completed only for applicants who are already established in the Southern Nevada Trauma System and are seeking out designation or upgrade.

4. Severely injured patients (ISS>15) discharged from acute care facilities not designated as a trauma center	YES	NO
A. Are the number of severely injured trauma patients being treated at a non-trauma center increasing?		
B. Are transfers into Southern Nevada Trauma Centers from non-trauma centers increasing?		
C. Are Step I and II incidents for current level III center catchment area increasing?		
Total for section 4		

5. Trauma centers currently in the Las Vegas valley (2013-2018)	
A. UMC	
i. Lowest number of trauma cases	4542
ii. Highest number of trauma cases	8832
iii. Percentage of Step 1 and II patients	15.88%
B. Sunrise	
i. Lowest number of trauma cases	824
ii. Highest number of trauma cases	2496
iii. Percentage of Step 1 and II patients	24.20%
C. St. Rose Siena	
i. Lowest number of trauma cases	369
ii. Highest number of trauma cases	810
iii. Percentage of Step 1 and II patients	2.28%
Total for section 5	N/A

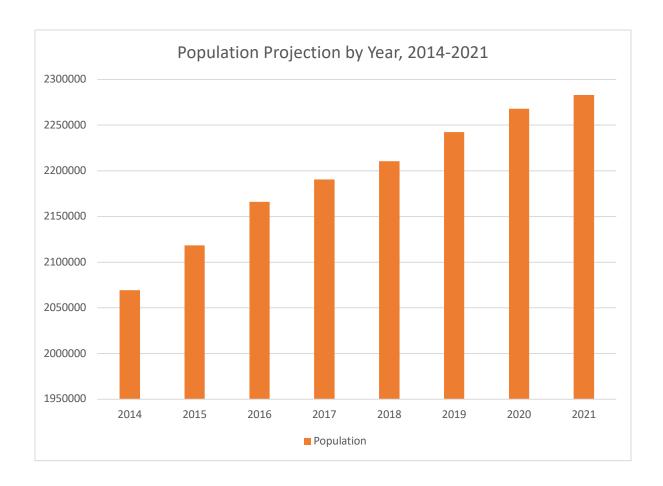
6. Any center seeking for an upgrade in designation must demonstrate substantial compliance with the requirements of the American College of Surgeons (ACS)  Resources for The Ontimal Care of Patients							
Resources for The Optimal Care of Patients							
Total for section 6	1						

Application Review: Scoring Needed Per Section			
Section 1: A minimum of 5 "Yes" answers	7		
Section 2: A minimum of 2 "Yes" answers	3		
Section 3: A minimum of 2 "Yes" answers			
Section 4: A minimum of 1 "Yes" answers			
Section 5: A minimum of 1 "Yes" answers			
Section 6: A minimum of 1 "Yes" answers	1		



1A. Is the Las Vegas valley population increasing?

#### 1B. Is the Las Vegas valley population projected to continue increasing?



Source: Nevada State Demographer's Office



1C. Areas of the Las Vegas valley demonstrating population growth at a faster rate than the rest of the valley (5.86% 2014-2017)

Zip Code	Growth Rate from 2014-2017				
89004	7.72				
89113	29.76				
89135	12.98				
89139	17.58				
89141	16.48				
89147	8.37				
89148	32.23				
89178	19.04				

Note: Spring Valley service area includes the following zip codes: 89004, 89103, 89113, 89118, 89135, 89139, 89141, 89147, 89148, 89161, 89178, 89041, 89048, and 89060.



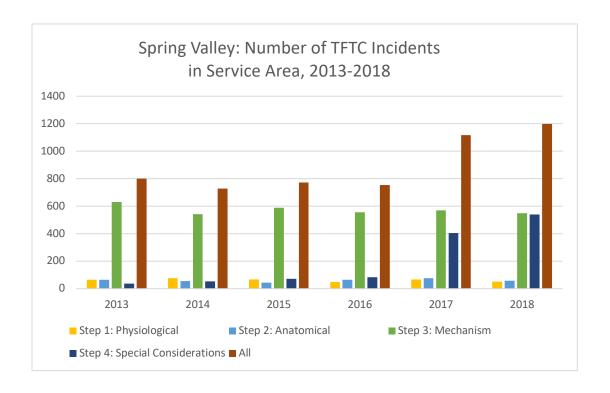
## 1D. Are areas of population growth projected to continue growing at a faster rate than the rest of the valley?

Zip Code	Growth Rate from 2014-2017
89004	7.72
89113	29.76
89135	12.98
89139	17.58
89141	16.48
89147	8.37
89148	32.23
89178	19.04

Note: Spring Valley service area includes the following zip codes: 89004, 89103, 89113, 89118, 89135, 89139, 89141, 89147, 89148, 89161, 89178, 89041, 89048, and 89060.



#### 1E. Number of TFTC Incidents in Service Area

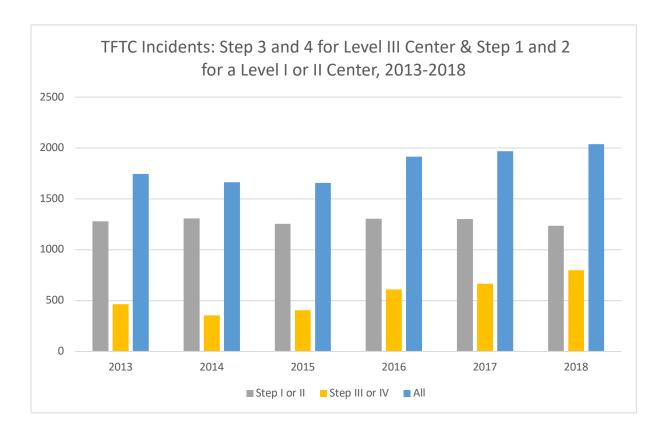


Spring Valley: Number of TFTC Incidents in Service Area, 2013-2018										
2013   2014   2015   2016   2017   2018										
Step 1: Physiological	65	77	67	49	67	52				
Step 2: Anatomical	66	55	45	66	76	57				
Step 3: Mechanism	631	543	588	555	569	550				
Step 4: Special Considerations	38	54	72	84	405	540				
All	800	729	772	754	1117	1199				

Note: Spring Valley service area includes the following zip codes: 89004, 89103, 89113, 89118, 89135, 89139, 89141, 89147, 89148, 89161, 89178, 89041, 89048, and 89060.



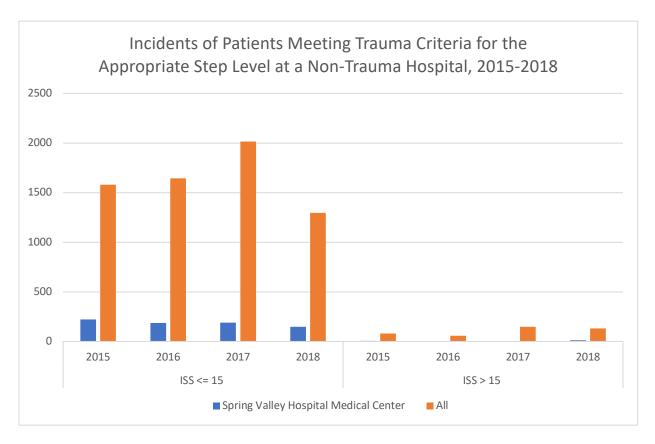
## 1F. Are the TFTC incidents for the appropriate step level increasing Step III and IV patients for a Level III center, Step 1 and 2 patients for a Level I or II center?



TFTC Incidents: Step III and IV for Level III Center & Step I and II for a Level I or II Center, 2013-2018											
2013 2014 2015 2016 2017 2018											
Stop 1 or 2	1279				1303						
Step 1 or 2		1308	1253	1306		1237					
Step 3 or 4	466	354	404	609	666	799					
Total	1745	1662	1657	1915	1969	2036					



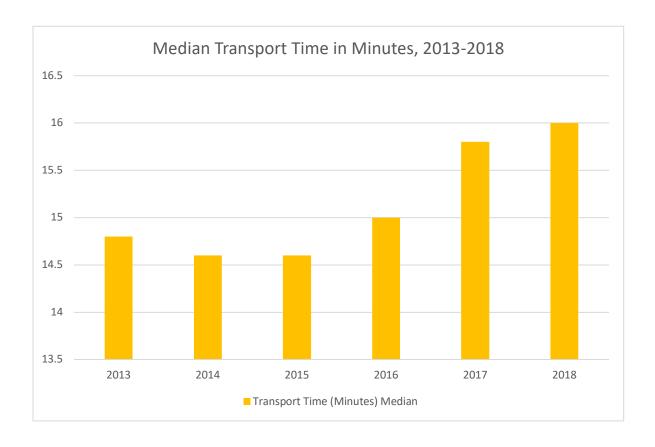
## 1G. Incidents of Patients Meeting Trauma Criteria for the Appropriate Step Level Increasing at a Non-Trauma Hospital



Incidents of Patients Meeting Trauma Criteria for the Appropriate Step Level at a Non-Trauma										
Hospital, 2015-2018										
		ISS <	<= 15		ISS > 15					
	2015	2016	2017	2018	2015	2016	2017	2018		
Spring Valley Hospital Medical	220	186	189	148	6	2	3	12		
Center										
All	1580	1644	2016	1295	79	57	149	131		



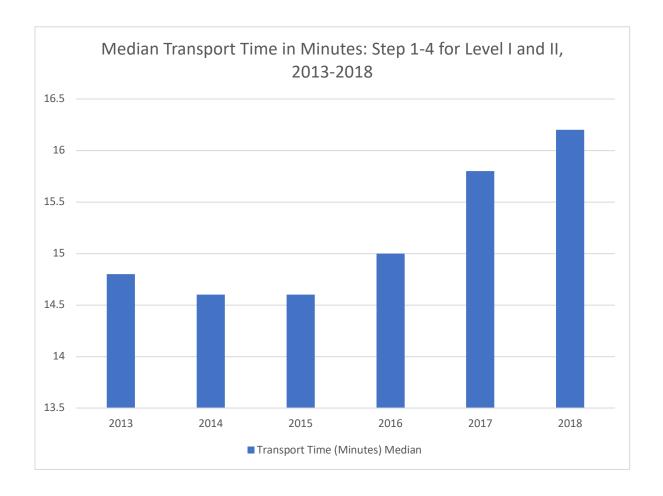
#### 2A. Are TFTC Transport Times Increasing for a Population Demonstrating Growth?



Median Transport Time in Minutes, 2013-2018									
		2013	2014	2015	2016	2017	2018		
Transport Time (Minutes)	N	5394	5577	5748	6424	10676	11464		
	Median	14.80	14.60	14.60	15.00	15.80	16.00		



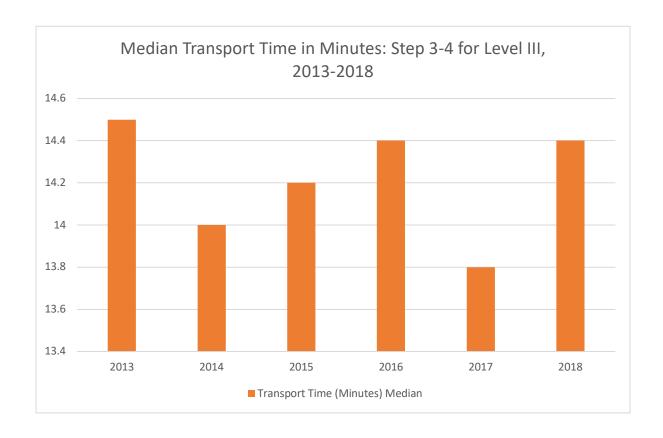
#### 2B. Median Transport Time by Year: Step 1-4 for Level I and II, 2013-2018



Median Transport Time in Minutes: Step 1-4 for Level I and II, 2013-2018								
		2013	2014	2015	2016	2017	2018	
Transport Time (Minutes)	N	4942	5252	5361	5842	9993	10663	
	Median	14.80	14.60	14.60	15.00	15.80	16.20	



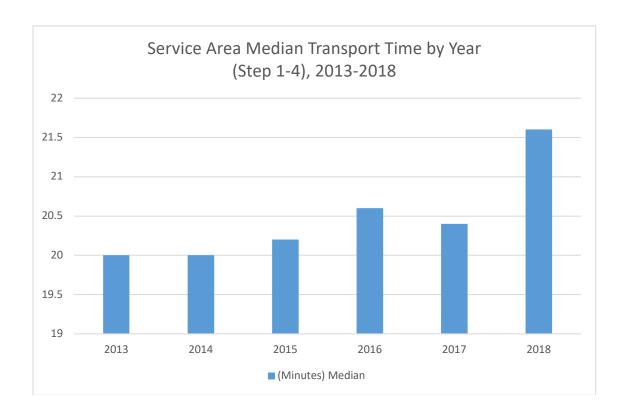
#### 2B. Median Transport Time by Year: Step 3-4 for Level III, 2013-2018



Median Transport Time by Year: Step 3-4 for Level III, 2013-2018									
		2013	2014	2015	2016	2017	2018		
Transport Time (Minutes)	N	438	312	371	579	666	790		
	Median	14.50	14.00	14.20	14.40	13.80	14.40		



#### 2C. Service Area Median Transport Time by Year: Step 1-4, 2013-2018

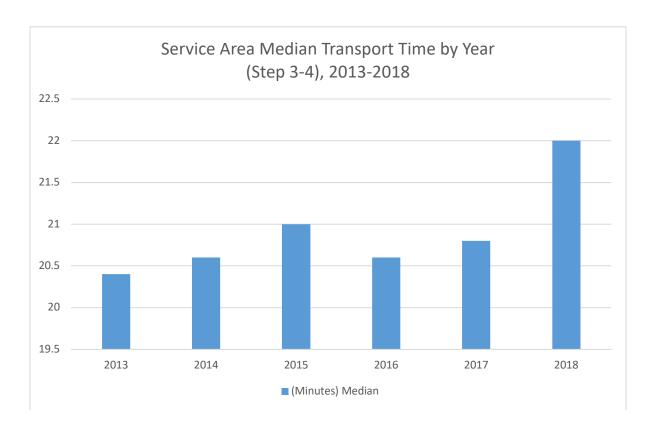


Service Area Median Transport Time by Year (Step 1-4), 2013-2018								
	2013   2014   2015   2016   2017   2018							
Transport Time (Minutes)	N	779	720	759	727	1096	1183	
	Median	20.00	20.00	20.20	20.60	20.40	21.60	

Note: Spring Valley service area includes the following zip codes: 89004, 89103, 89113, 89118, 89135, 89139, 89141, 89147, 89148, 89161, 89178, 89041, 89048, and 89060



#### 2C. Service Area Median Transport Time by Year (Step 3-4), 2013-2018

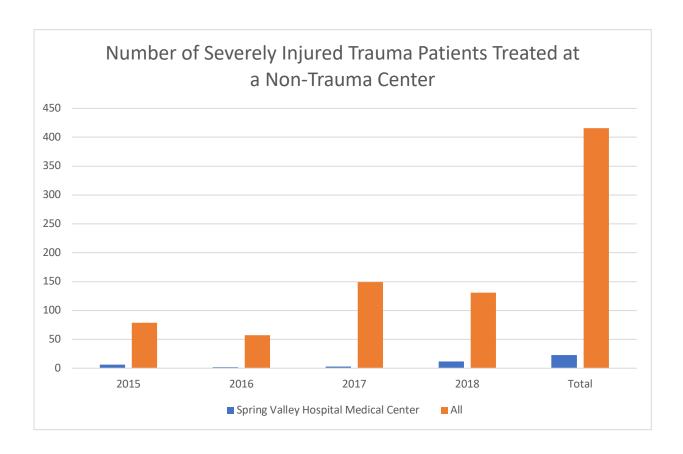


Service Area Median Transport Time by Year (Step 3-4), 2013-2018							
	2013   2014   2015   2016   2017   2018						2018
Transport Time (Minutes)	N	654	591	651	615	959	1078
	Median	20.40	20.60	21.00	20.60	20.80	22.00

Note: Spring Valley service area includes the following zip codes: 89004, 89103, 89113, 89118, 89135, 89139, 89141, 89147, 89148, 89161, 89178, 89041, 89048, and 89060



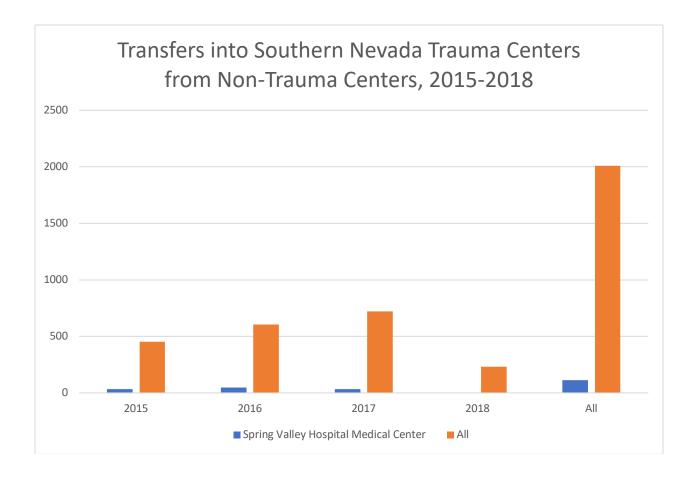
## 4A. Are the Number of Severely Injured Trauma Patients being treated at a Non-Trauma Center Increasing?



Number of Severely Injured Trauma Patients Treated at a Non-Trauma Center							
	2015	2016	2017	2018	Total		
Spring Valley Hospital Medical Center	6	2	3	12	23		
All	79	57	149	131	416		



#### 4B. Transfers into Southern Nevada Trauma Centers from Non-Trauma Centers, 2015-2018



Transfers into Southern Nevada Trauma Centers from Non-Trauma Centers, 2015-2018						
	2015	2016	2017	2018	All	
Spring Valley Hospital Medical Center	33	47	34		114	
All	452	605	721	232	2010	

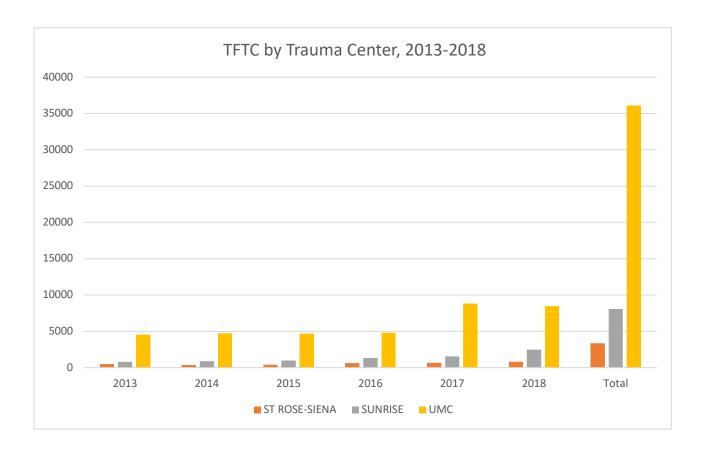


4C. Are Step 1 and/or Step 2 TFTC incidents for the current Level III center catchment area increasing?

Year Sent	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2014	104	35.86	104	35.86
2016	96	33.10	200	68.97
2017	90	31.03	290	100.00



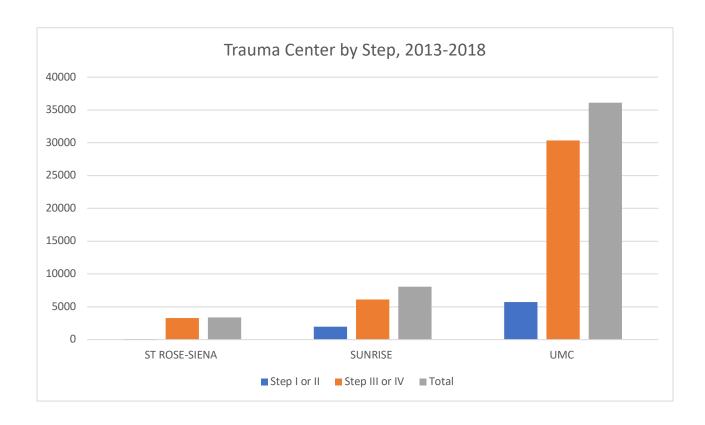
#### 5. TFTC by Trauma Centers, 2013-2018



TFTC by Trauma Centers, 2013-2018							
	2013	2014	2015	2016	2017	2018	All
ST ROSE-SIENA	482	369	421	612	683	810	3377
SUNRISE	824	882	1001	1322	1545	2496	8070
UMC	4542	4724	4687	4836	8832	8485	36106

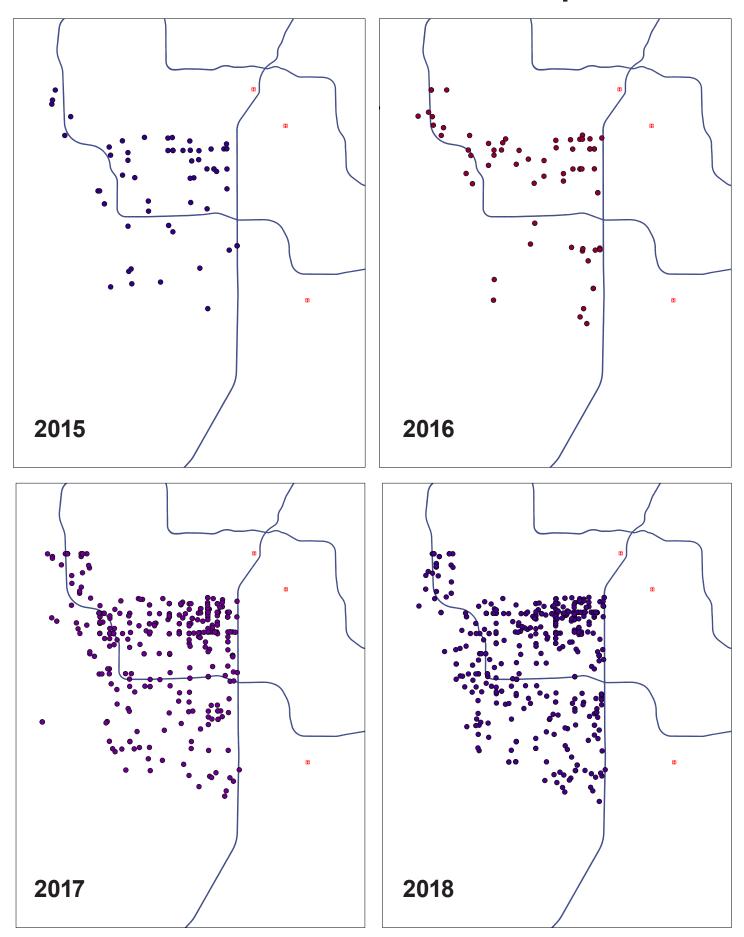


#### 5. Trauma Centers by Year Currently in the Las Vegas Valley, 2013-2018

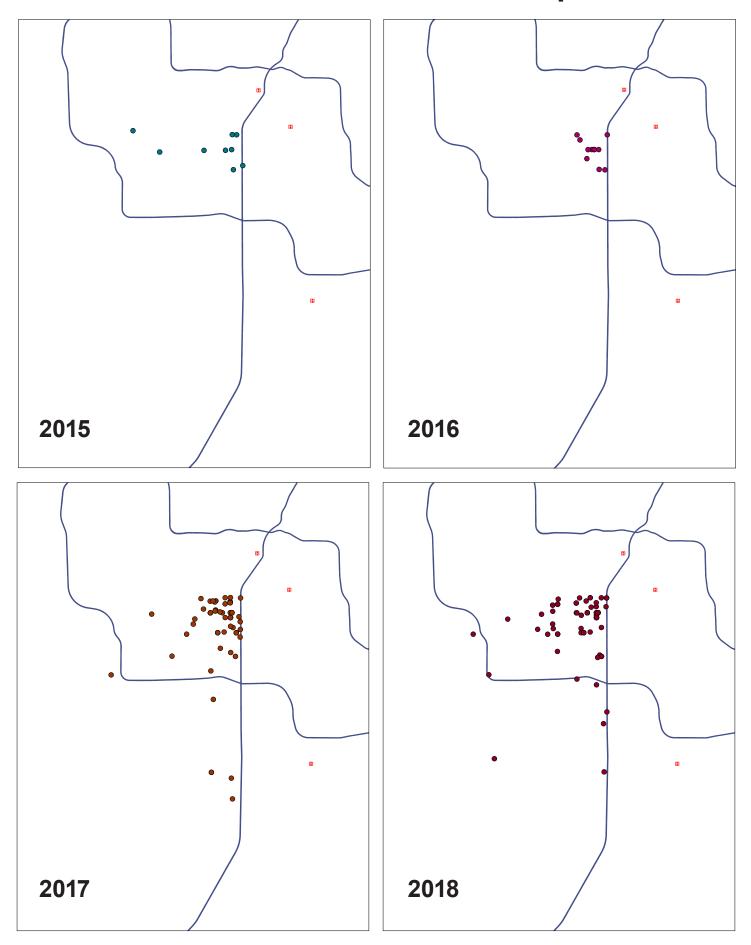


Trauma Centers by Year Currently in the Las Vegas Valley, 2013-2018					
	Step 1 or 2	Step 3 or 4	All		
ST ROSE-SIENA	77	3300	3377		
SUNRISE	1953	6114	8070		
UMC	5733	30373	36106		

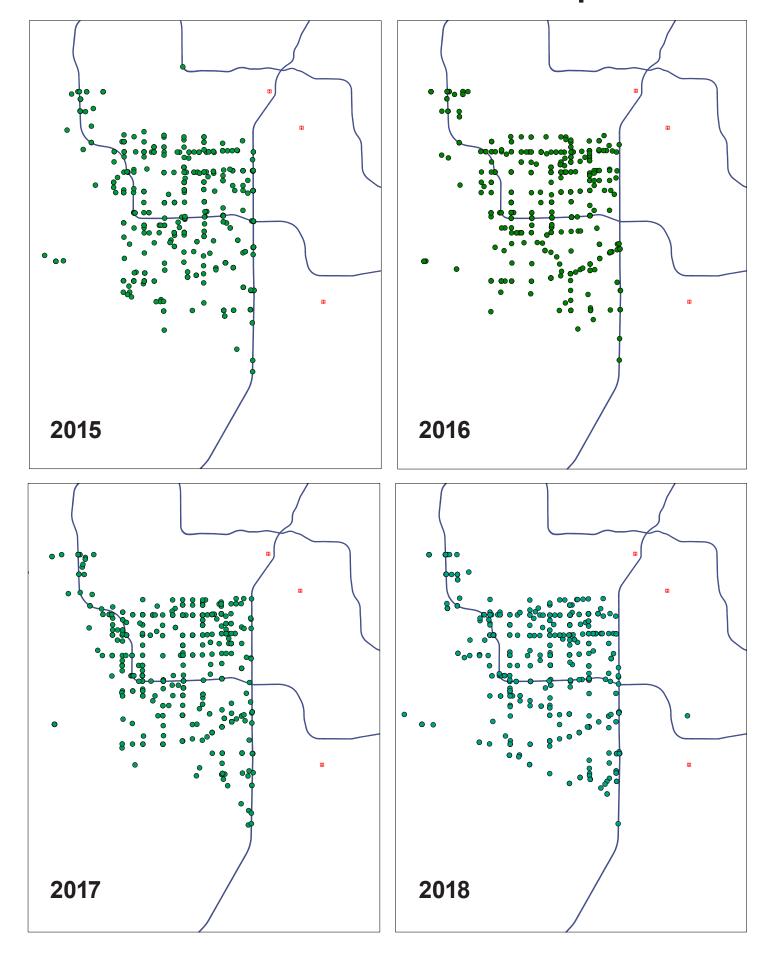
## **SPRING VALLEY: TFTC Time Step 4 > 15**



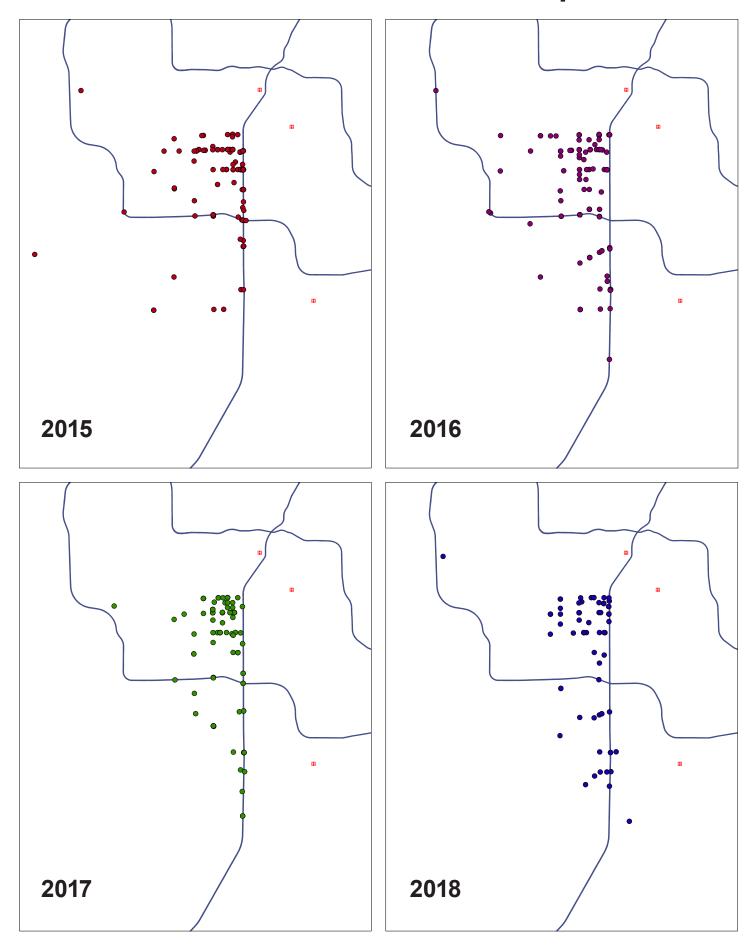
## **SPRING VALLEY: TFTC Time Step 4 <= 15**



## **SPRING VALLEY: TFTC Time Step 3 > 15**



## **SPRING VALLEY: TFTC Time Step 3 <= 15**





#### Trauma Needs Assessment Review: Centennial Hills

1. Population	YES	NO
A. Is the Las Vegas valley population increasing?	<b>√</b>	
B. Is the Las Vegas Valley population projected to continue increasing?	<b>√</b>	
C. Is an area of the Las Vegas valley demonstrating population growth at a faster rate than the rest of the valley?	<b>✓</b>	
D. Are areas of population growth projected to continue growing at a faster rate than the rest of the valley?	<b>√</b>	
E. Is there an increase in TFTC incidents in the area of population growth?	<b>√</b>	
F. Are the TFTC incidents for the appropriate step level increasing (Step III and IV patients for level III center, Step I and II patients for a level I or II center)?	✓	
G. Are incidents of patients meeting trauma criteria for the appropriate step level increasing at a non-trauma hospital (Step III or IV for level III, Step I or II for level I or II)?	/	
Total for section 1	7	<u>'</u>

2. Median Transport Times	YES	NO
A. Is the Southern Nevada Trauma System demonstrating transport times greater than		
15 minutes?	✓	
B. Are transport times for the appropriate step level greater than 15 minutes (Step I, II,		
III, and IV for level I and II, Step III and IV only for level III)?	$\checkmark$	
C. Are transport times increasing for a population area demonstrating increasing		
growth?	<b>√</b>	
Total for section 2	3	

3. Lead Agency / System Stakeholder / Community Support	YES	NO
A. Lead agency support is based on a demonstration of need for more trauma resources for the stability of the trauma system		
B. System stakeholder support requires 3 areas of support from the application region to receive from the areas listed below:		
i. Public provider of emergency 911 services		
ii. Private provider of emergency 911 services		
iii. Established trauma center		
iv. Non-trauma center hospital		
v. Other system stakeholders which include other healthcare industry related groups such as payors of medical benefits, educational institutions, healthcare, and social advocacy groups, and other relevant groups		
C. Appropriate state or local government support in the area of an applicant seeking to join the Southern Nevada Trauma System		
Total for section 3		



Note - The following section is to be completed only for applicants who are already established in the Southern Nevada Trauma System and are seeking out designation or upgrade.

4. Severely injured patients (ISS>15) discharged from acute care facilities not designated as a trauma center	YES	NO
A. Are the number of severely injured trauma patients being treated at a non-trauma center increasing?		
B. Are transfers into Southern Nevada Trauma Centers from non-trauma centers increasing?		
C. Are Step I and II incidents for current level III center catchment area increasing?		
Total for section 4		

5. Trauma centers currently in the Las Vegas valley (2013-2018)	
A. UMC	
i. Lowest number of trauma cases	4542
ii. Highest number of trauma cases	8832
iii. Percentage of Step 1 and II patients	15.88%
B. Sunrise	
i. Lowest number of trauma cases	824
ii. Highest number of trauma cases	2496
iii. Percentage of Step 1 and II patients	24.20%
C. St. Rose Siena	
i. Lowest number of trauma cases	369
ii. Highest number of trauma cases	810
iii. Percentage of Step 1 and II patients	2.28%
Total for section 5	N/A

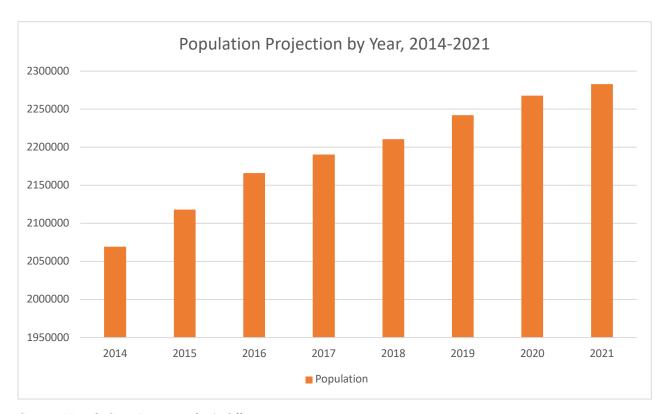
6. Any center seeking for an upgrade in designation must demonstrate substantial compliance with the requirements of the American College of Surgeons (ACS)		
Resources for The Optimal Care of Patients	YES	NO
Total for section 6	1	

Application Review: Scoring Needed Per Section	YES	NO
Section 1: A minimum of 5 "Yes" answers	7	
Section 2: A minimum of 2 "Yes" answers	3	
Section 3: A minimum of 2 "Yes" answers		
Section 4: A minimum of 1 "Yes" answers		
Section 5: A minimum of 1 "Yes" answers		
Section 6: A minimum of 1 "Yes" answers	1	



1A. Is the Las Vegas valley population increasing?

1B. Is the Las Vegas valley population projected to continue increasing?



Source: Nevada State Demographer's Office



1C. Areas of the Las Vegas valley demonstrating population growth at a faster rate than the rest of the valley (5.86% 2014-2017)

Zip Code	Growth	Rate from	2014-2017
Zib Coue	Growin	Nate Irom	ZU14-ZU1/

89031	5.92
89081	12.45
89084	11.31
89149	13.96
89166	35.35

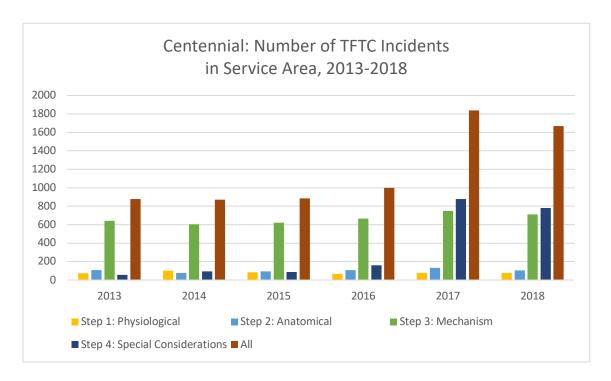


## 1D. Are areas of population growth projected to continue growing at a faster rate than the rest of the valley?

Zip Code	Growth Rate from 2014-2017
89031	5.92
89081	12.45
89084	11.31
89149	13.96
89166	35.35



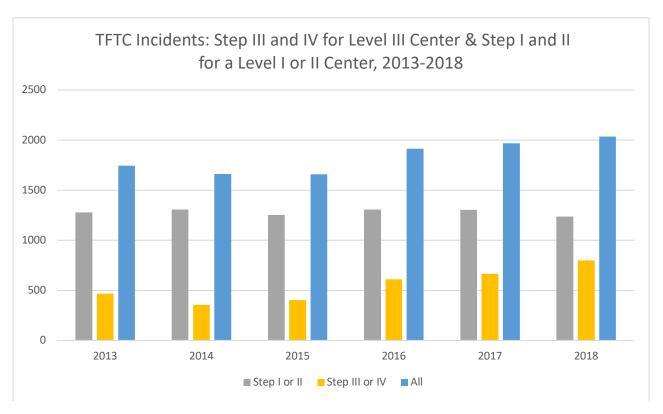
#### 1E. Number of TFTC incidents in service area



Centennial: Number of TFTC Incidents in Service Area, 2013-2018									
2013   2014   2015   2016   2017   2018									
Step 1: Physiological	74	99	83	67	77	75			
Step 2: Anatomical	106	76	94	107	133	104			
Step 3: Mechanism	641	604	622	666	750	710			
Step 4: Special Considerations	56	93	87	158	877	779			
All	877	872	886	998	1837	1669			



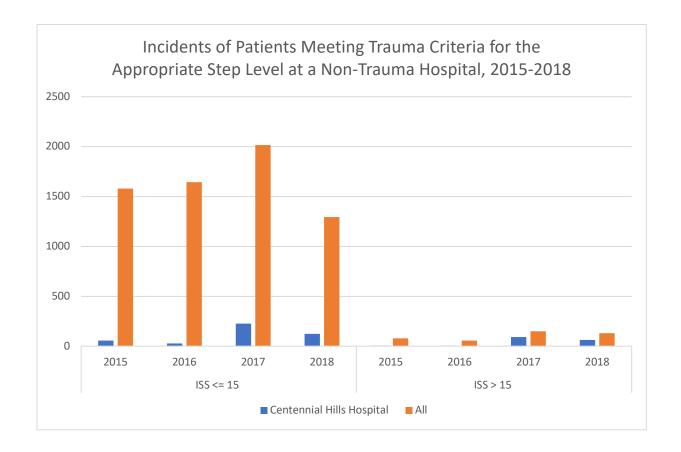
## 1F. Are the TFTC incidents for the appropriate step level increasing Step III and IV patients for a Level III center, Step 1 and 2 patients for a Level I or II center?



TFTC Incidents: Step 3 and 4 for Level III Center & Step 1 and 2 for a Level I or II Center,									
2013-2018									
2013 2014 2015 2016 2017 2018									
Step I or II	1279	1308	1253	1306	1303	1237			
Step III or IV	466	354	404	609	666	799			
Total	1745	1662	1657	1915	1969	2036			



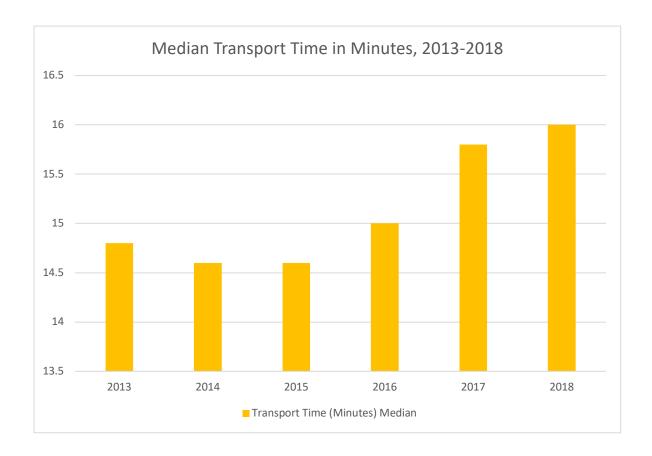
## 1G. Incidents of Patients Meeting Trauma Criteria for the Appropriate Step Level Increasing at a Non-Trauma Hospital



Incidents of Patients Meeting Trauma Criteria for the Appropriate Step Level at a Non-Trauma Hospital, 2015-2018								
ISS <= 15								
	2015   2016   2017   2018   2015   2016   2017   20					2018		
Centennial Hills Hospital	55	26	227	122	4	2	90	63
All	1580	1644	2016	1295	79	57	149	131



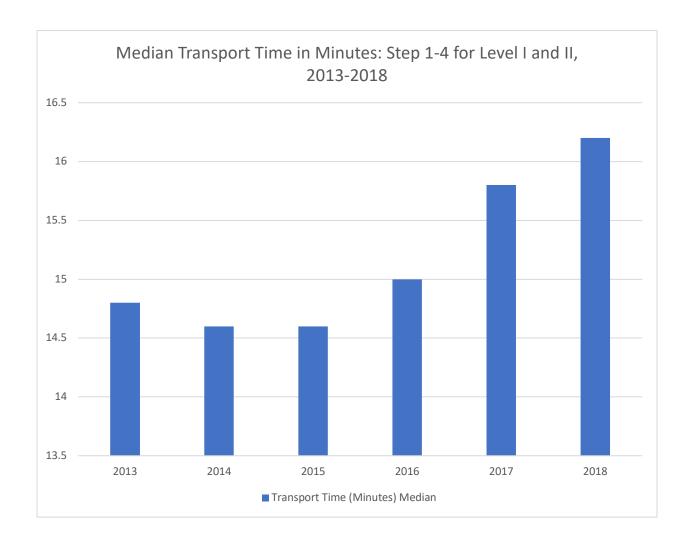
#### 2A. Are TFTC Transport Times Increasing for a Population Demonstrating Growth?



Median Transport Time in Minutes, 2013-2018								
		2013	2014	2015	2016	2017	2018	
Transport Time (Minutes)	N	5394	5577	5748	6424	10676	11464	
	Median	14.80	14.60	14.60	15.00	15.80	16.00	



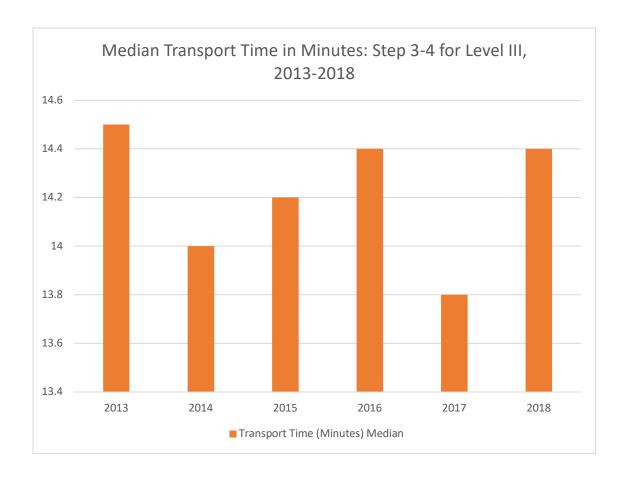
#### 2B. Median Transport Time by Year: Step 1-4 for Level I and II, 2013-2018



Median Transport Time in Minutes: Step 1-4 for Level I and II, 2013-2018							
2013   2014   2015   2016   2017   2018						2018	
Transport Time (Minutes)	N	4942	5252	5361	5842	9993	10663
	Median	14.80	14.60	14.60	15.00	15.80	16.20



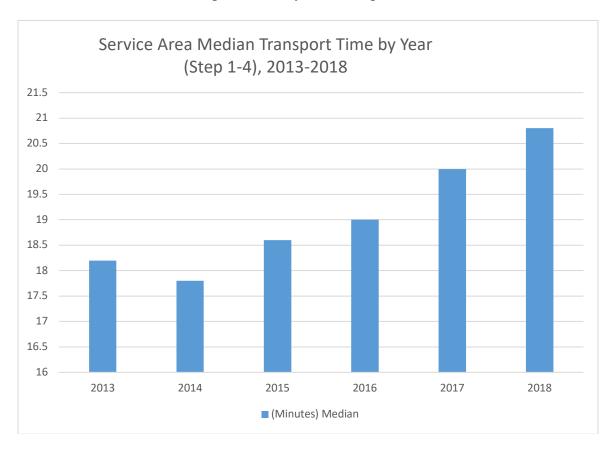
#### 2B. Median Transport Time by Year: Step 3-4 for Level III, 2013-2018



Median Transport Time by Year: Step 3-4 for Level III, 2013-2018								
		2013	2014	2015	2016	2017	2018	
Transport Time (Minutes)	N	438	312	371	579	666	790	
	Median	14.50	14.00	14.20	14.40	13.80	14.40	



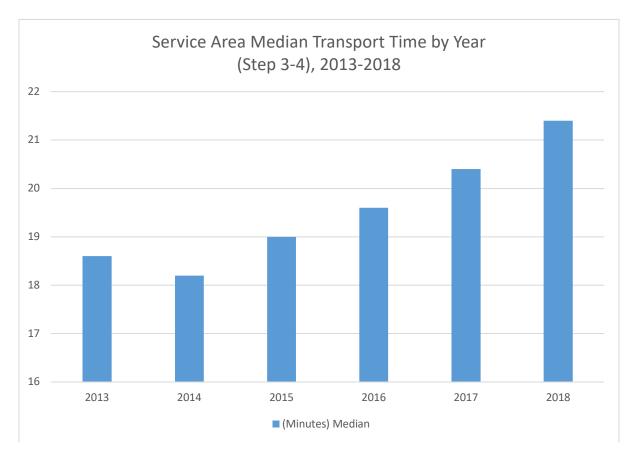
#### 2C. Service Area Median Transport Time by Year: Step 1-4, 2013-2018



Service Area Median Transport Time by Year (Step 1-4), 2013-2018							
					2018		
Transport Time (Minutes)	N	845	847	871	959	1808	1653
	Median	18.20	17.80	18.60	19.00	20.00	20.80



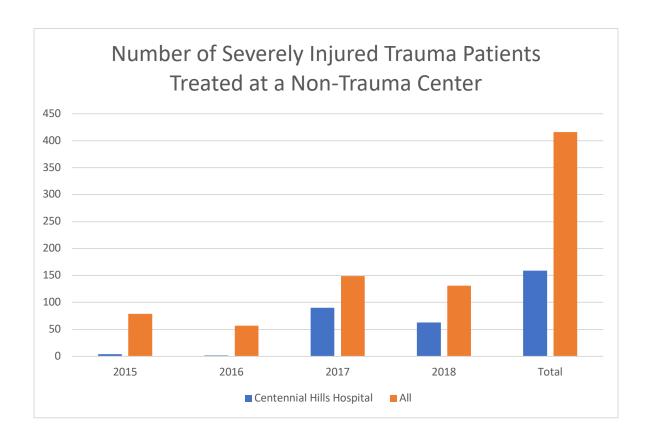
#### 2C. Service Area Median Transport Time by Year (Step 3-4), 2013-2018



Service Area Median Transport Time by Year (Step 3-4), 2013-2018							
						2018	
Transport Time (Minutes)	N	675	676	697	789	1603	1478
	Median	18.60	18.20	19.00	19.60	20.40	21.40



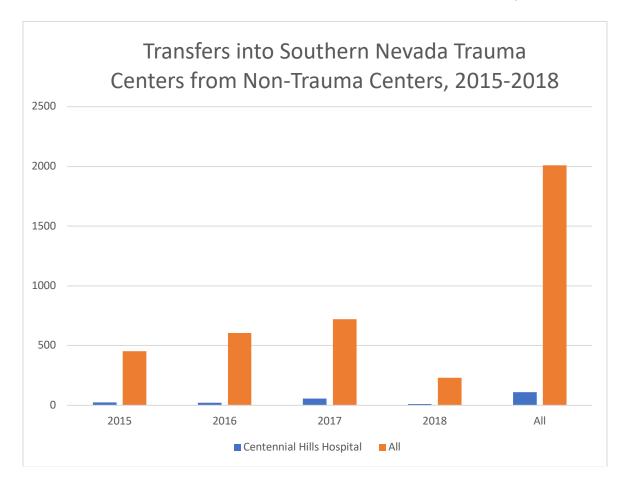
## 4A. Are the Number of Severely Injured Trauma Patients being treated at a Non-Trauma Center Increasing?



Number of Severely Injured Trauma Patients Treated at a Non-Trauma Center						
	2015	2016	2017	2018	Total	
Centennial Hills Hospital	4	2	90	63	159	
All	79	57	149	131	416	



#### 4B. Transfers into Southern Nevada Trauma Centers from Non-Trauma Centers, 2015-2018



Transfers into Southern Nevada Trauma Centers from Non-Trauma Centers, 2015-2018							
	2015	2016	2017	2018	All		
Centennial Hills Hospital	24	21	56	10	111		
All	452	605	721	232	2010		

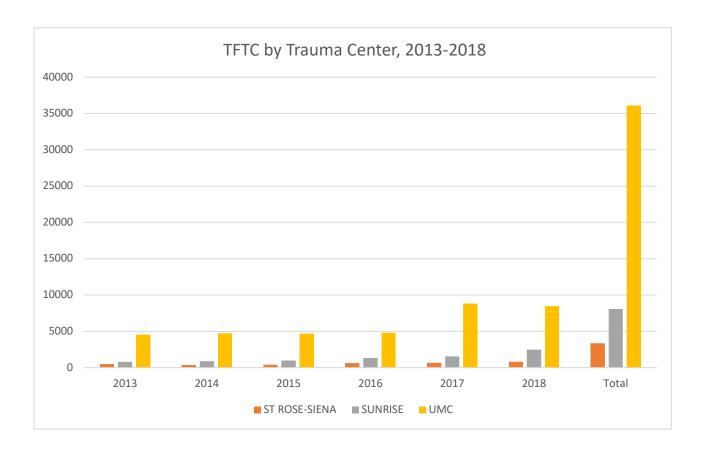


4C. Are Step 1 and/or Step 2 TFTC incidents for the current Level III center catchment area increasing?

Year Sent	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2014	104	35.86	104	35.86
2016	96	33.10	200	68.97
2017	90	31.03	290	100.00



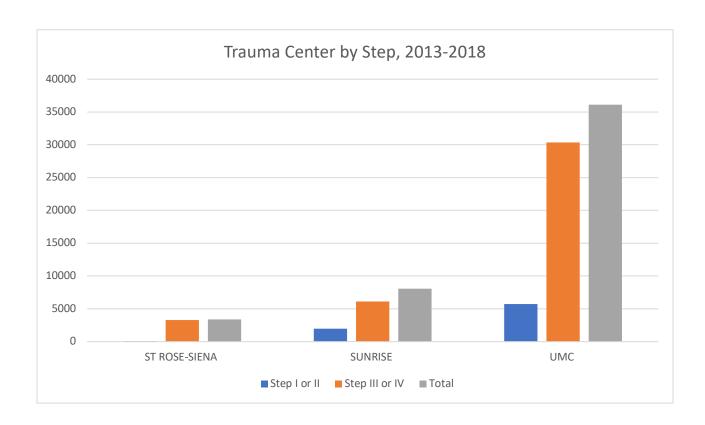
#### 5. TFTC by Trauma Centers, 2013-2018



TFTC by Trauma Centers, 2013-2018								
	2013	2014	2015	2016	2017	2018	All	
ST ROSE-SIENA	482	369	421	612	683	810	3377	
OVANDAGE.	004	002	1001	1222	1545	2406	0070	
SUNRISE	824	882	1001	1322	1545	2496	8070	
UMC	4542	4724	4687	4836	8832	8485	36106	

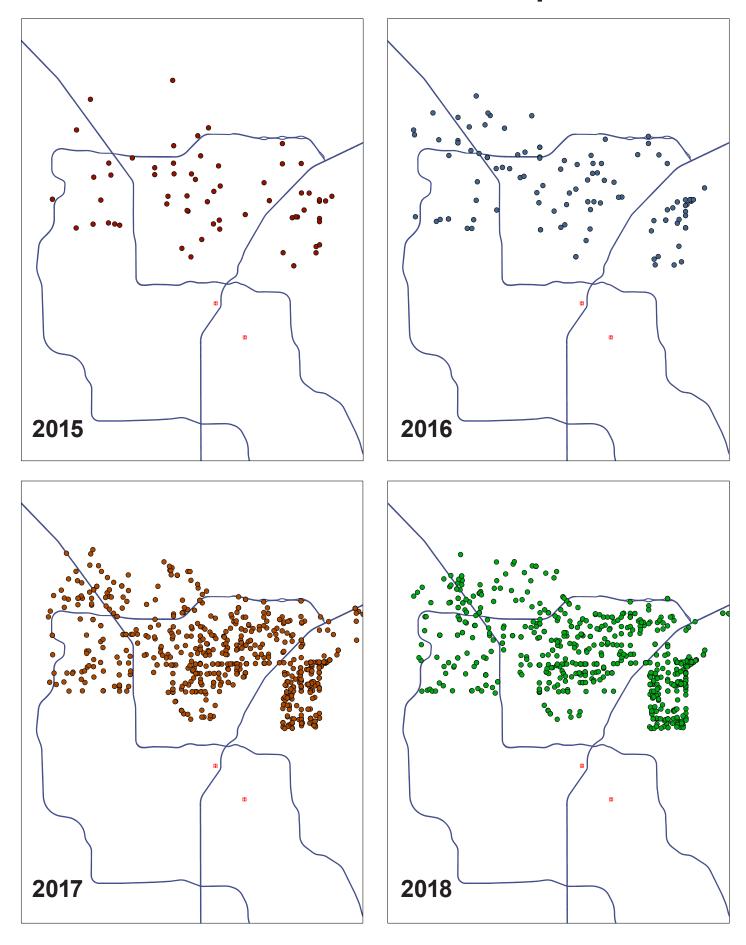


#### 5. Trauma Centers by Year Currently in the Las Vegas Valley, 2013-2018

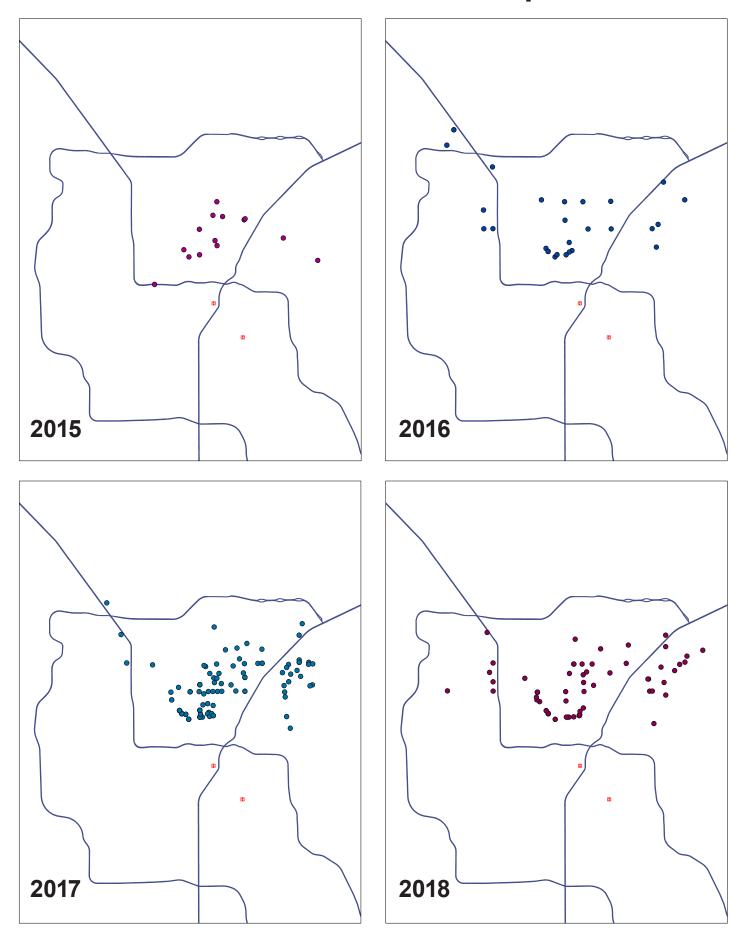


Trauma Centers by Year Currently in the Las Vegas Valley, 2013-2018						
	Step I or II	Step III or IV	All			
ST ROSE-SIENA	77	3300	3377			
SUNRISE	1953	6114	8070			
UMC	5733	30373	36106			

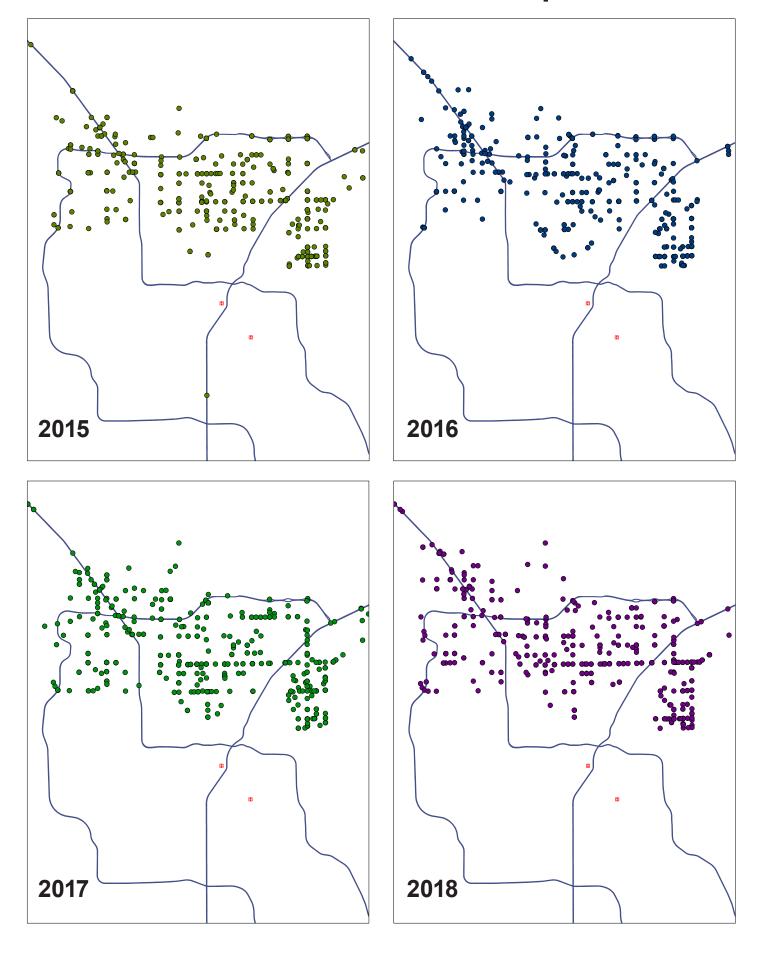
## **CENTENNIAL: TFTC Time Step 4 > 15**



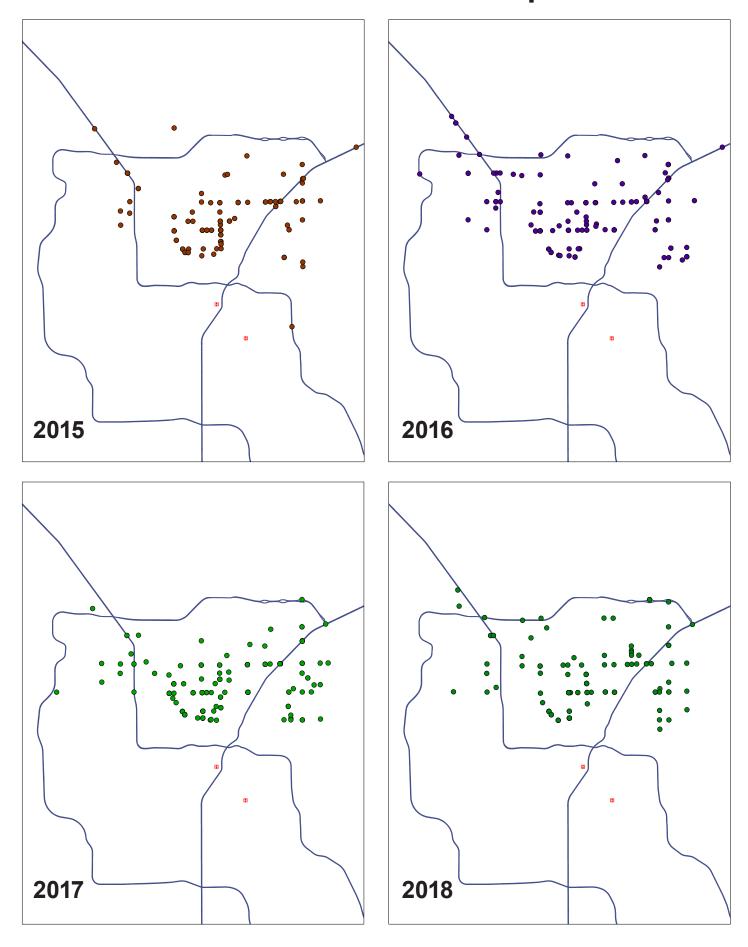
## **CENTENNIAL: TFTC Time Step 4 <= 15**



## **CENTENNIAL: TFTC Time Step 3 > 15**



## **CENTENNIAL:** TFTC Time Step 3 <= 15





#### Trauma Needs Assessment Review: Mike O'Callaghan

1. Population	YES	NO
A. Is the Las Vegas valley population increasing?	<b>√</b>	
B. Is the Las Vegas Valley population projected to continue increasing?	<b>√</b>	
C. Is an area of the Las Vegas valley demonstrating population growth at a faster rate than the rest of the valley?	✓	
D. Are areas of population growth projected to continue growing at a faster rate than the rest of the valley?	<b>√</b>	
E. Is there an increase in TFTC incidents in the area of population growth?	✓	
F. Are the TFTC incidents for the appropriate step level increasing (Step III and IV patients for level III center, Step I and II patients for a level I or II center)?	✓	
G. Are incidents of patients meeting trauma criteria for the appropriate step level increasing at a non-trauma hospital (Step III or IV for level III, Step I or II for level I	/	
or II)?  Total for section 1	7	,

2. Median Transport Times	YES	NO
A. Is the Southern Nevada Trauma System demonstrating transport times greater than 15 minutes?	<b>√</b>	
B. Are transport times for the appropriate step level greater than 15 minutes (Step I, II, III, and IV for level I and II, Step III and IV only for level III)?	✓	
C. Are transport times increasing for a population area demonstrating increasing growth?	✓	
Total for section 2	3	

3. Lead Agency / System Stakeholder / Community Support	YES	NO
A. Lead agency support is based on a demonstration of need for more trauma resources for the stability of the trauma system		
B. System stakeholder support requires 3 areas of support from the application region to receive from the areas listed below:		
i. Public provider of emergency 911 services		
ii. Private provider of emergency 911 services		
iii. Established trauma center		
iv. Non-trauma center hospital		
v. Other system stakeholders which include other healthcare industry related groups such as payors of medical benefits, educational institutions, healthcare, and social advocacy groups, and other relevant groups		
C. Appropriate state or local government support in the area of an applicant seeking to join the Southern Nevada Trauma System		
Total for section 3		



Note - The following section is to be completed only for applicants who are already established in the Southern Nevada Trauma System and are seeking out designation or upgrade.

4. Severely injured patients (ISS>15) discharged from acute care facilities not designated as a trauma center	YES	NO
A. Are the number of severely injured trauma patients being treated at a non-trauma center increasing?		
B. Are transfers into Southern Nevada Trauma Centers from non-trauma centers increasing?		
C. Are Step I and II incidents for current level III center catchment area increasing?		
Total for section 4		•

5. Trauma centers currently in the Las Vegas valley (2013-2018)	
A. UMC	
i. Lowest number of trauma cases	4542
ii. Highest number of trauma cases	8832
iii. Percentage of Step 1 and II patients	15.88%
B. Sunrise	
i. Lowest number of trauma cases	824
ii. Highest number of trauma cases	2496
iii. Percentage of Step 1 and II patients	24.20%
C. St. Rose Siena	
i. Lowest number of trauma cases	369
ii. Highest number of trauma cases	810
iii. Percentage of Step 1 and II patients	2.28%
Total for section 5	N/A

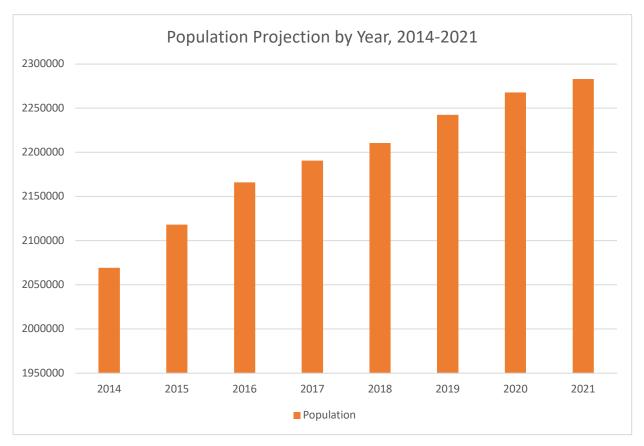
6. Any center seeking for an upgrade in designation must demonstrate substantial compliance with the requirements of the American College of Surgeons (ACS)		
Resources for The Optimal Care of Patients	YES	NO
Total for section 6	1	[

Application Review: Scoring Needed Per Section	YES	NO
Section 1: A minimum of 5 "Yes" answers	7	
Section 2: A minimum of 2 "Yes" answers	3	
Section 3: A minimum of 2 "Yes" answers		
Section 4: A minimum of 1 "Yes" answers		
Section 5: A minimum of 1 "Yes" answers		
Section 6: A minimum of 1 "Yes" answers	1	



1A. Is the Las Vegas valley population increasing?

#### 1B. Is the Las Vegas valley population projected to continue increasing?



Source: Nevada State Demographer's Office



1C. Areas of the Las Vegas valley demonstrating population growth at a faster rate than the rest of the valley (5.86% 2014-2017)

Zip Code	Growth Rate from 2014-2017
89031	5.92
89081	12.45
89084	11.31



11.31

## 1D. Are areas of population growth projected to continue growing at a faster rate than the rest of the valley?

Zip Code

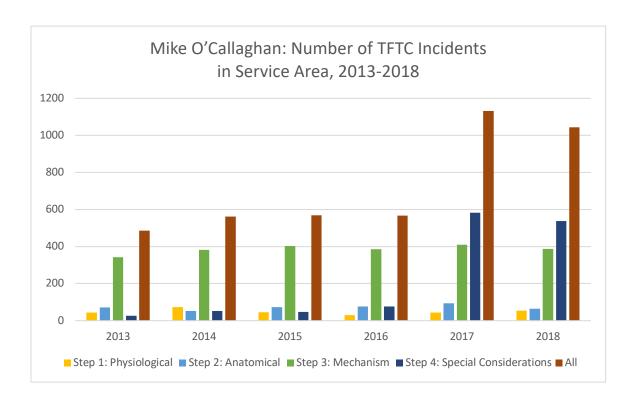
89084

•	
89031	5.92
89081	12.45

Growth Rate from 2014-2017



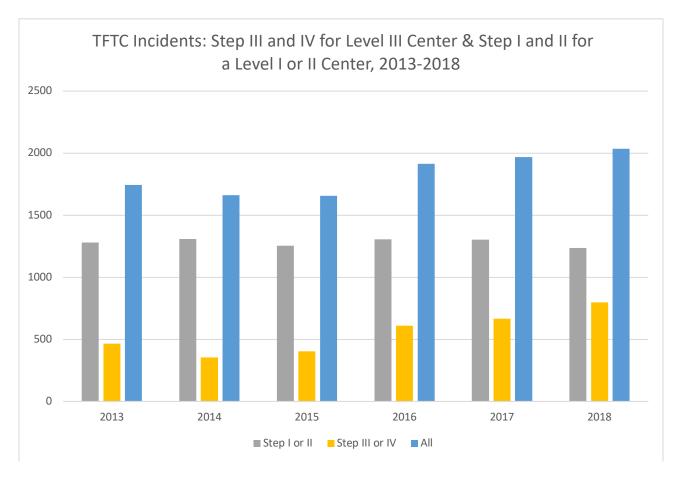
#### 1E. Number of TFTC incidents in service area



Mike O'Callaghan: Number of TFTC Incidents in Service Area, 2013-2018									
	2013   2014   2015   2016   2017								
Step 1: Physiological	44	73	45	30	44	54			
Step 2: Anatomical	72	53	73	76	94	64			
Step 3: Mechanism	343	383	403	385	410	388			
<b>Step 4: Special Considerations</b>	26	53	48	76	583	537			
All	485	562	569	567	1131	1044			



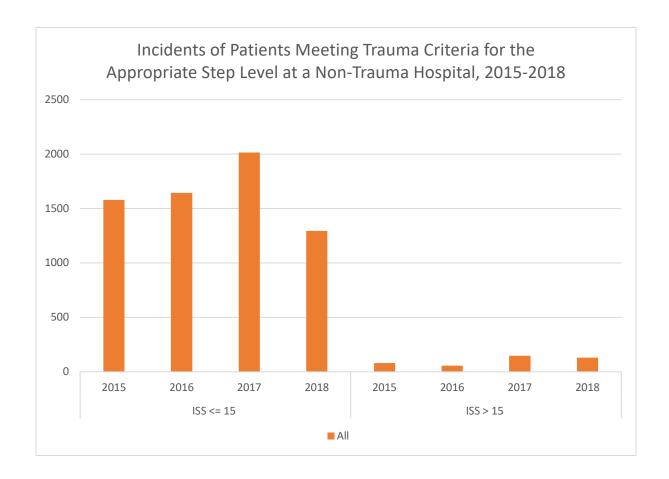
## 1F. Are the TFTC incidents for the appropriate step level increasing Step 3 and 4 patients for a Level III center, Step 1 and 2 patients for a Level I or II center?



TFTC Incidents: Step III and IV for Level III Center & Step I and II for a Level I or II Center,											
2013-2018											
2013 2014 2015 2016 2017 2018											
Step 1 or 2	1279	1308	1253	1306	1303	1237					
Step 3 or 4	466	354	404	609	666	799					
Total	1745	1662	1657	1915	1969	2036					



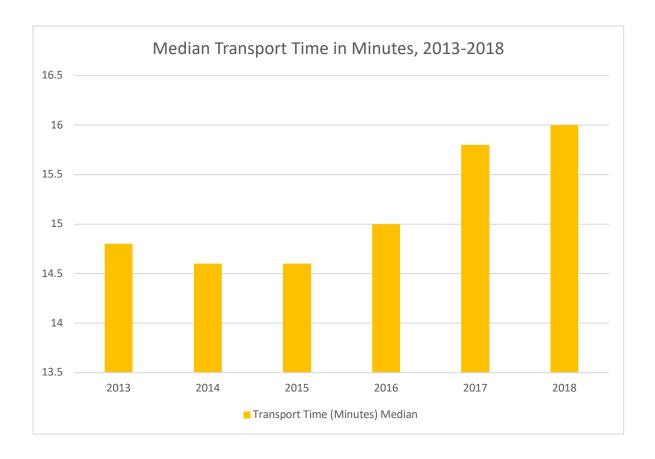
## 1G. Incidents of Patients Meeting Trauma Criteria for the Appropriate Step Level Increasing at a Non-Trauma Hospital



Incidents of Patients Meeting Trauma Criteria for the Appropriate Step Level at a Non-Trauma Hospital, 2015-2018									
	ISS <= 15					ISS > 15			
	2015	2016	2017	2018	2015	2016	2017	2018	
All	1580	1644	2016	1295	79	57	149	131	



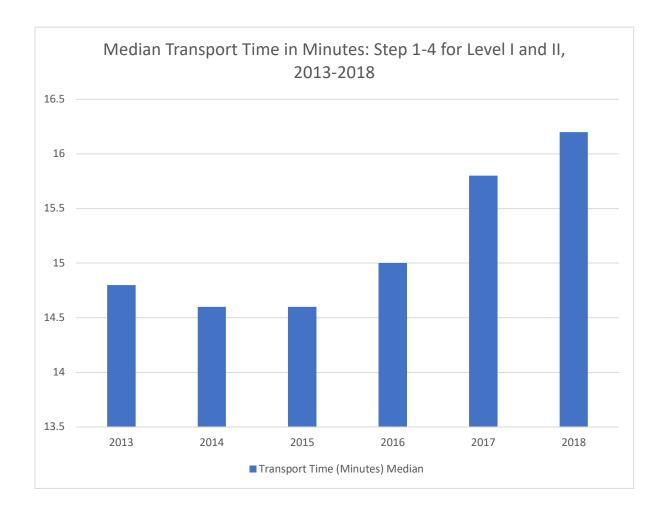
#### 2A. Are TFTC Transport Times Increasing for a Population Demonstrating Growth?



Median Transport Time in Minutes, 2013-2018									
		2013	2014	2015	2016	2017	2018		
Transport Time (Minutes)	N	5394	5577	5748	6424	10676	11464		
	Median	14.80	14.60	14.60	15.00	15.80	16.00		



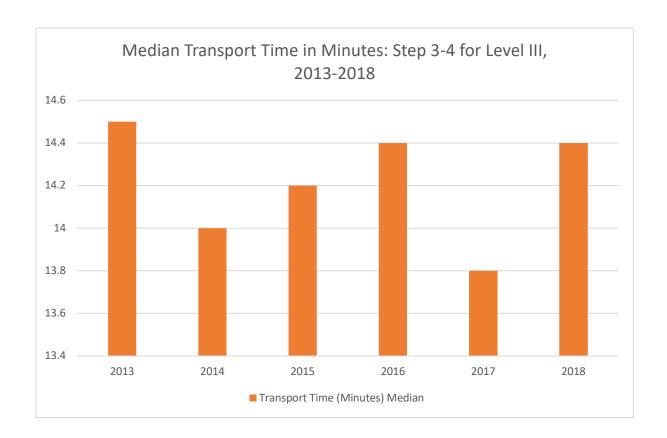
#### 2B. Median Transport Time by Year: Step 1-4 for Level I and II, 2013-2018



Median Transport Time in Minutes: Step 1-4 for Level I and II, 2013-2018									
	2013	2014	2015	2016	2017	2018			
Transport Time (Minutes)	N	4942	5252	5361	5842	9993	10663		
	Median	14.80	14.60	14.60	15.00	15.80	16.20		



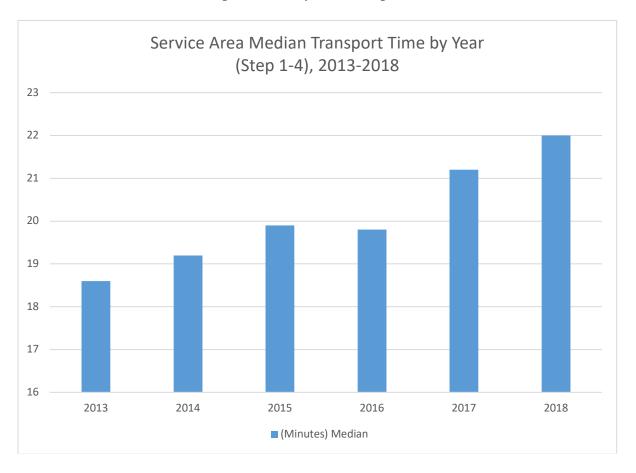
#### 2B. Median Transport Time by Year: Step 3-4 for Level III, 2013-2018



Median Transport Time by Year: Step 3-4 for Level III, 2013-2018									
		2013	2014	2015	2016	2017	2018		
<b>Transport Time (Minutes)</b>	N	438	312	371	579	666	790		
	Median	14.50	14.00	14.20	14.40	13.80	14.40		



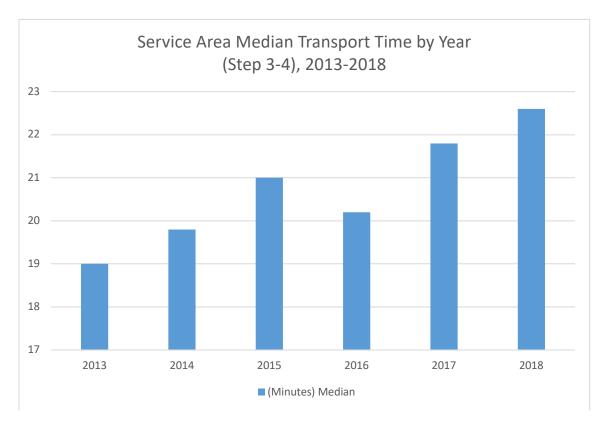
#### 2C. Service Area Median Transport Time by Year: Step 1-4, 2013-2018



Service Area Median Transport Time by Year (Step 1-4), 2013-2018											
		2013	2014	2015	2016	2017	2018				
Transport Time (Minutes)	N	478	544	566	565	1126	1042				
	Median	18.60	19.20	19.90	19.80	21.20	22.00				



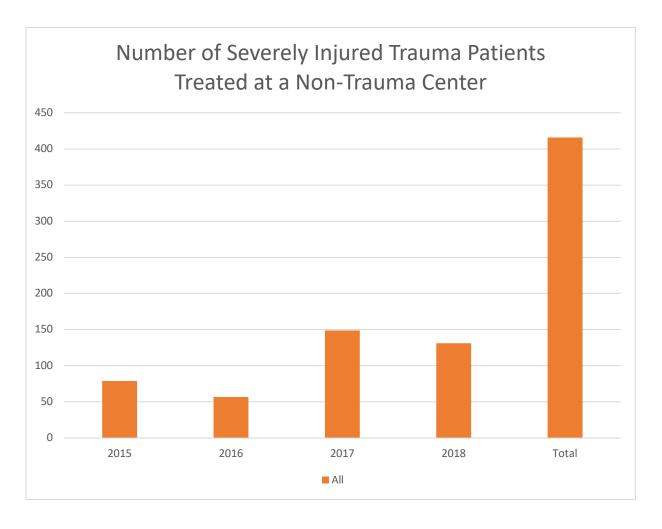
#### 2C. Service Area Median Transport Time by Year (Step 3-4), 2013-2018



Service Area Median Transport Time by Year (Step 3-4), 2013-2018							
		2013	2014	2015	2016	2017	2018
Transport Time	N	363	422	449	459	989	923
(Minutes)	Median	19.00	19.80	21.00	20.20	21.80	22.60



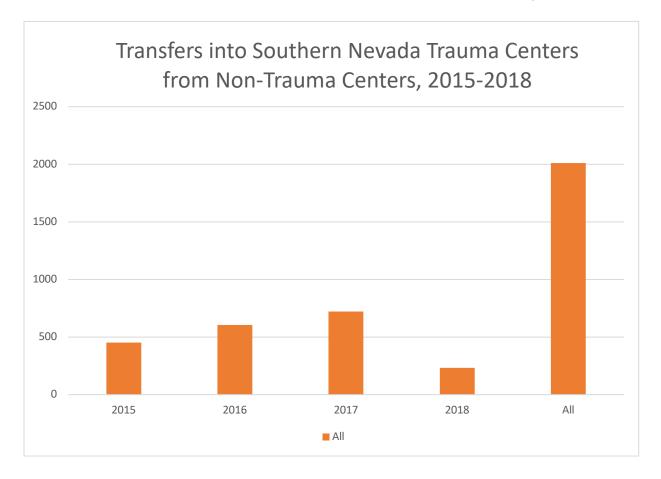
## 4A. Are the Number of Severely Injured Trauma Patients being treated at a Non-Trauma Center Increasing?



Number of Severely Injured Trauma Patients Treated at a Non-Trauma Center						
	2015	2016	2017	2018	Total	
All	79	57	149	131	416	



#### 4B. Transfers into Southern Nevada Trauma Centers from Non-Trauma Centers, 2015-2018



Transfers into Southern Nevada Trauma Centers from Non-Trauma Centers, 2015-							
2018							
	2015	2016	2017	2018	All		
All	452	605	721	232	2010		

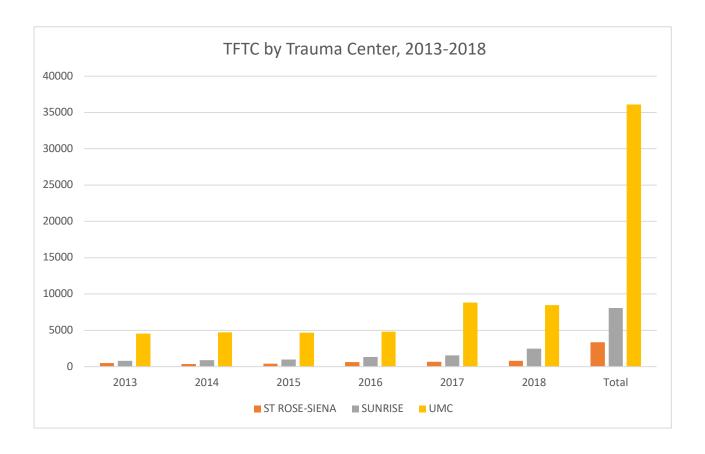


4C. Are Step 1 and/or Step 2 TFTC incidents for the current Level III center catchment area increasing?

Year Sent	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2014	104	35.86	104	35.86
2016	96	33.10	200	68.97
2017	90	31.03	290	100.00



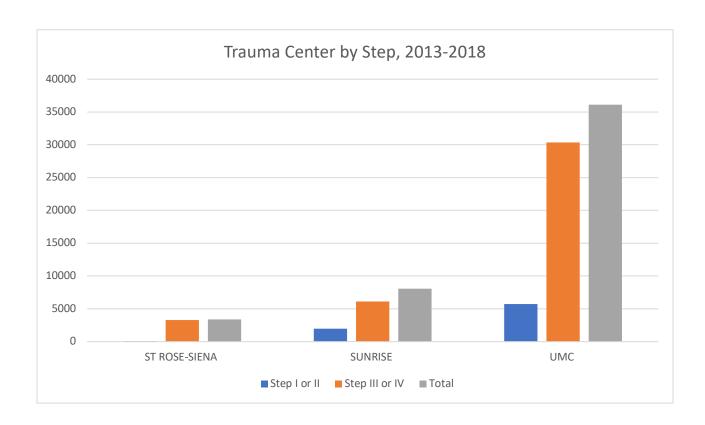
#### 5. TFTC by Trauma Centers, 2013-2018



TFTC by Trauma Centers, 2013-2018							
2013   2014   2015   2016   2017   2018							All
ST ROSE-SIENA	482	369	421	612	683	810	3377
SUNRISE	824	882	1001	1322	1545	2496	8070
UMC	4542	4724	4687	4836	8832	8485	36106
UNIC	4342	4/24	4007	4030	0032	0703	30100

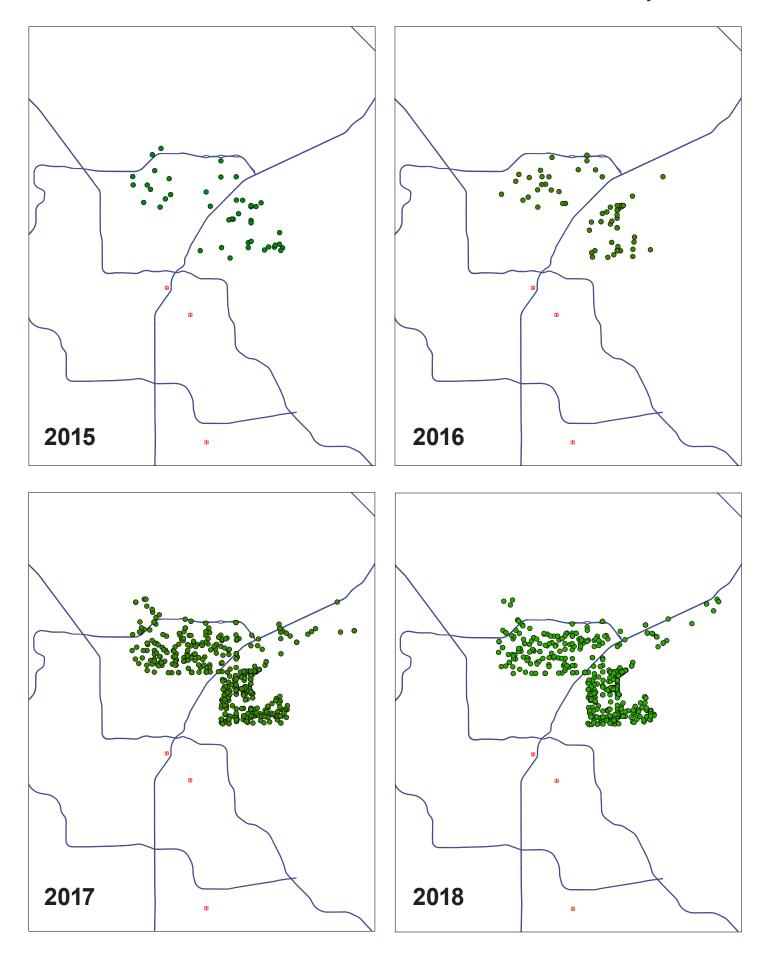


#### 5. Trauma Centers by Year Currently in the Las Vegas Valley, 2013-2018

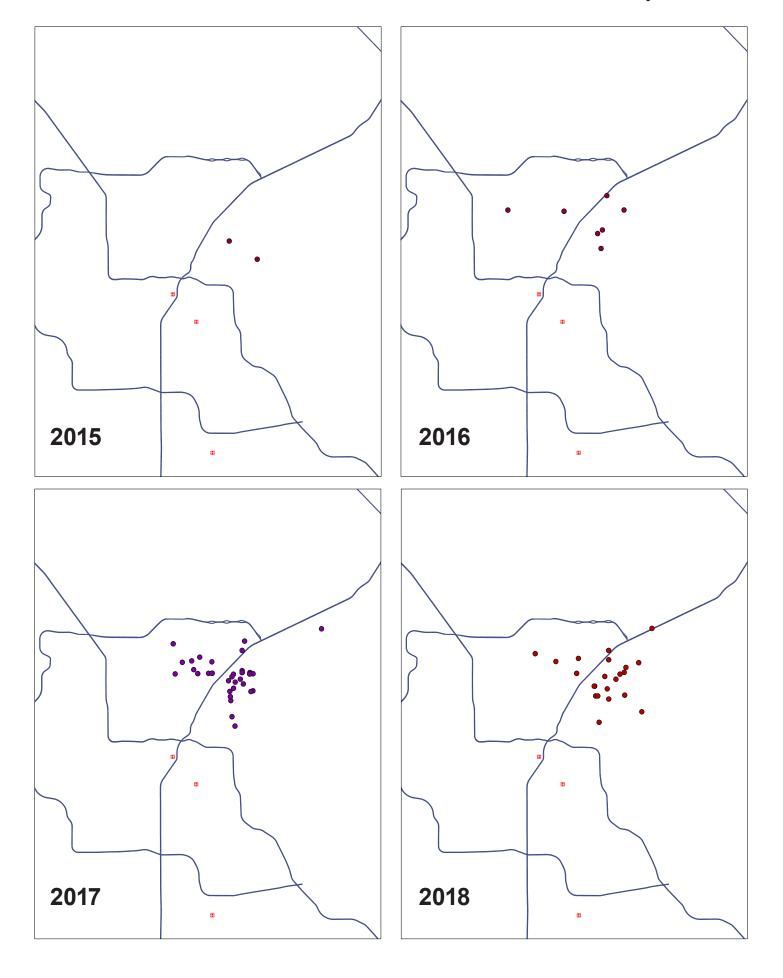


Trauma Centers by Year Currently in the Las Vegas Valley, 2013-2018			
	Step 1 or 2	Step 3 or 4	All
ST ROSE-SIENA	77	3300	3377
SUNRISE	1953	6114	8070
UMC	5733	30373	36106

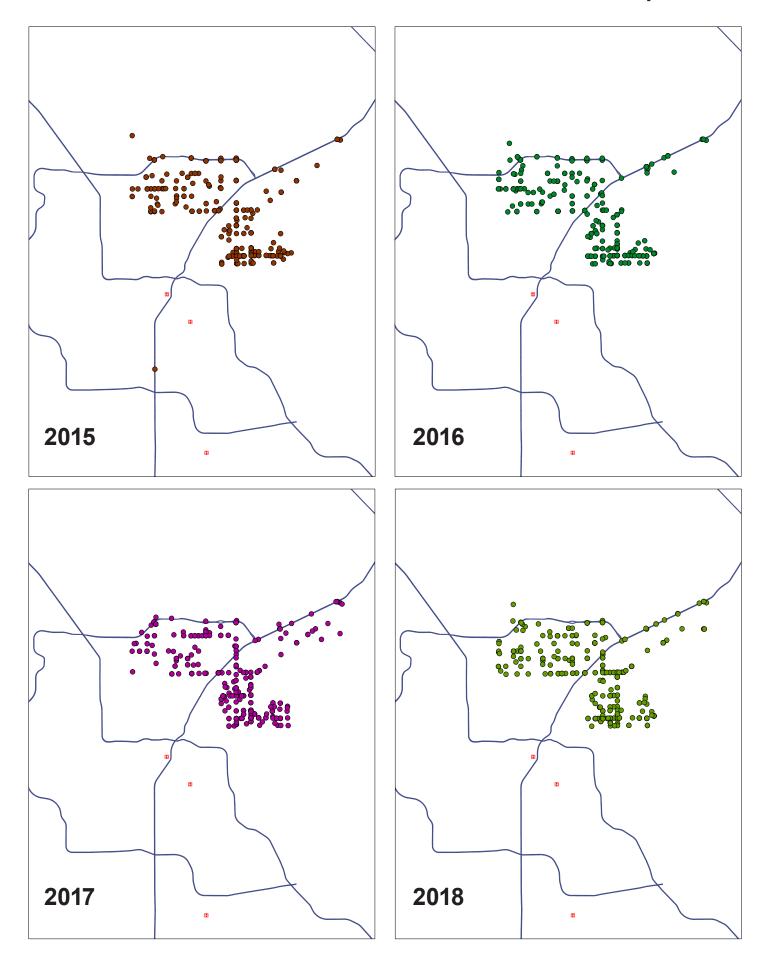
## MIKE O CALLAGHAN MEDICAL CENTER: TFTC Time Step 4 > 15



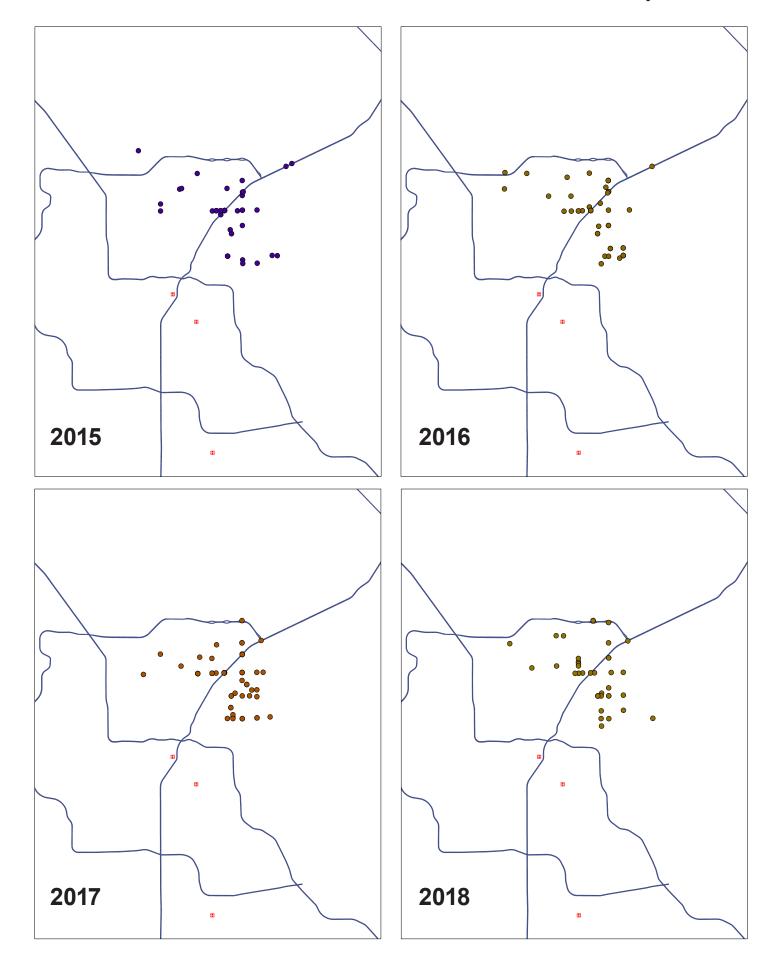
## MIKE O CALLAGHAN MEDICAL CENTER: TFTC Time Step 4 <= 15



## MIKE O CALLAGHAN MEDICAL CENTER: TFTC Time Step 3 > 15



## MIKE O CALLAGHAN MEDICAL CENTER: TFTC Time Step 3 <= 15





#### Trauma Needs Assessment Review: Mountain View

1. Population	YES	NO
A. Is the Las Vegas valley population increasing?	<b>√</b>	
B. Is the Las Vegas Valley population projected to continue increasing?	$\checkmark$	
C. Is an area of the Las Vegas valley demonstrating population growth at a faster rate than the rest of the valley?	<b>✓</b>	
D. Are areas of population growth projected to continue growing at a faster rate than the rest of the valley?	<b>√</b>	
E. Is there an increase in TFTC incidents in the area of population growth?	$\checkmark$	
F. Are the TFTC incidents for the appropriate step level increasing (Step III and IV patients for level III center, Step I and II patients for a level I or II center)?	<b>√</b>	
G. Are incidents of patients meeting trauma criteria for the appropriate step level increasing at a non-trauma hospital (Step III or IV for level III, Step I or II for level I or II)?	✓	
Total for section 1	7	

2. Median Transport Times	YES	NO
A. Is the Southern Nevada Trauma System demonstrating transport times greater than 15 minutes?	✓	
B. Are transport times for the appropriate step level greater than 15 minutes (Step I, II, III, and IV for level I and II, Step III and IV only for level III)?	<b>√</b>	
C. Are transport times increasing for a population area demonstrating increasing growth?	<b>√</b>	
Total for section 2	3	

3. Lead Agency / System Stakeholder / Community Support	YES	NO
A. Lead agency support is based on a demonstration of need for more trauma resources for the stability of the trauma system		
B. System stakeholder support requires 3 areas of support from the application region to receive from the areas listed below:		
i. Public provider of emergency 911 services		
ii. Private provider of emergency 911 services		
iii. Established trauma center		
iv. Non-trauma center hospital		
v. Other system stakeholders which include other healthcare industry related groups such as payors of medical benefits, educational institutions, healthcare, and social advocacy groups, and other relevant groups		
C. Appropriate state or local government support in the area of an applicant seeking to join the Southern Nevada Trauma System		
Total for section 3		



Note - The following section is to be completed only for applicants who are already established in the Southern Nevada Trauma System and are seeking out designation or upgrade.

4. Severely injured patients (ISS>15) discharged from acute care facilities not designated as a trauma center	YES	NO
A. Are the number of severely injured trauma patients being treated at a non-trauma center increasing?		
B. Are transfers into Southern Nevada Trauma Centers from non-trauma centers increasing?		
C. Are Step I and II incidents for current level III center catchment area increasing?		
Total for section 4		

5. Trauma centers currently in the Las Vegas valley (2013-2018)	
A. UMC	
i. Lowest number of trauma cases	4542
ii. Highest number of trauma cases	8832
iii. Percentage of Step 1 and II patients	15.88%
B. Sunrise	
i. Lowest number of trauma cases	824
ii. Highest number of trauma cases	2496
iii. Percentage of Step 1 and II patients	24.20%
C. St. Rose Siena	
i. Lowest number of trauma cases	
ii. Highest number of trauma cases	
iii. Percentage of Step 1 and II patients	
Total for section 5	N/A

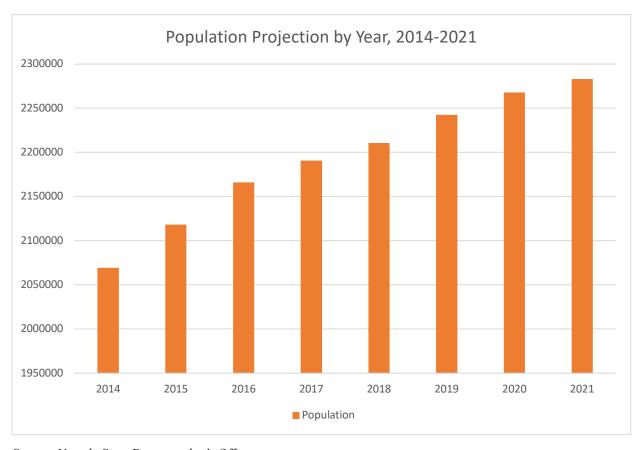
6. Any center seeking for an upgrade in designation must demonstrate substantial compliance with the requirements of the American College of Surgeons (ACS)		
Resources for The Optimal Care of Patients	YES	NO
Total for section 6	1	

Application Review: Scoring Needed Per Section		NO
Section 1: A minimum of 5 "Yes" answers	7	
Section 2: A minimum of 2 "Yes" answers	3	
Section 3: A minimum of 2 "Yes" answers		
Section 4: A minimum of 1 "Yes" answers		
Section 5: A minimum of 1 "Yes" answers		
Section 6: A minimum of 1 "Yes" answers	1	



1A. Is the Las Vegas valley population increasing?

#### 1B. Is the Las Vegas valley population projected to continue increasing?



Source: Nevada State Demographer's Office



35.35

1C. Areas of the Las Vegas valley demonstrating population growth at a faster rate than the rest of the valley (5.86% 2014-2017)

89031	5.92
89084	11.31
89138	25.74
89149	13.96

**Zip Code** Growth Rate from 2014-2017

Note: Mountain View service area includes the following zip codes: 89084, 89166, 89131, 89149, 89138, 89143, 89129, 89031, 89130, 89134, 89144, 89145, 89032, 89128, 89108, and 89085.

89166



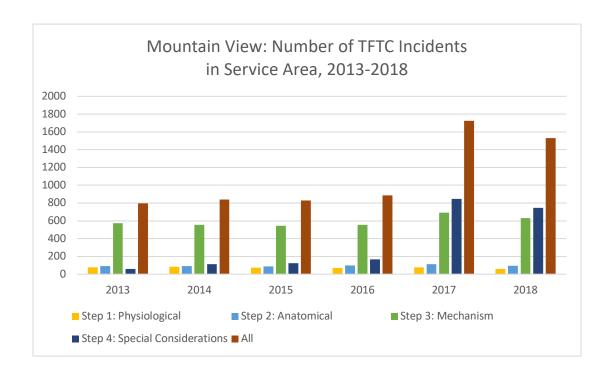
# 1D. Are areas of population growth projected to continue growing at a faster rate than the rest of the valley?

Zip Code	Growth Rate from 2014-2017	
89031	5.92	
89084	11.31	
89138	25.74	
89149	13.96	
89166	35.35	

Note: Mountain View service area includes the following zip codes: 89084, 89166, 89131, 89149, 89138, 89143, 89129, 89031, 89130, 89134, 89144, 89145, 89032, 89128, 89108, and 89085.



#### 1E. Number of TFTC incidents in service area

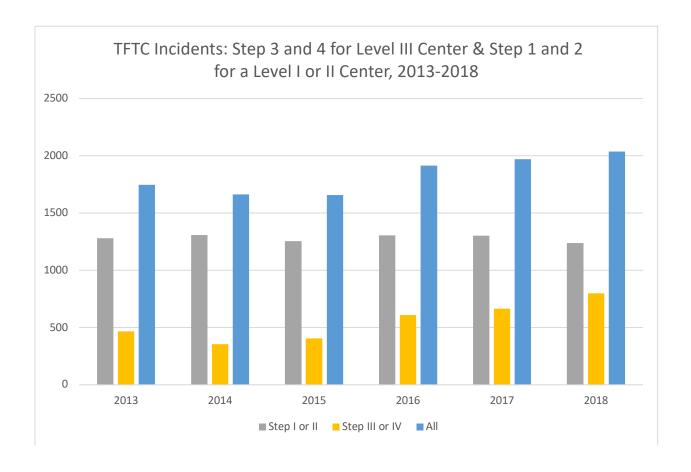


Mountain View: N	umber o	of TFTC	Inciden	its							
in Service Area, 2013-2018											
	2013	2014	2015	2016	2017	2018					
Step 1: Physiological	75	82	73	70	78	59					
Step 2: Anatomical	90	90	87	97	111	94					
Step 3: Mechanism	572	554	546	554	692	631					
Step 4: Special Considerations	58	113	124	166	845	746					
All 795 839 830 887 1726 1530											

Note: Mountain View service area includes the following zip codes: 89084, 89166, 89131, 89149, 89138, 89143, 89129, 89031, 89130, 89134, 89144, 89145, 89032, 89128, 89108, and 89085.



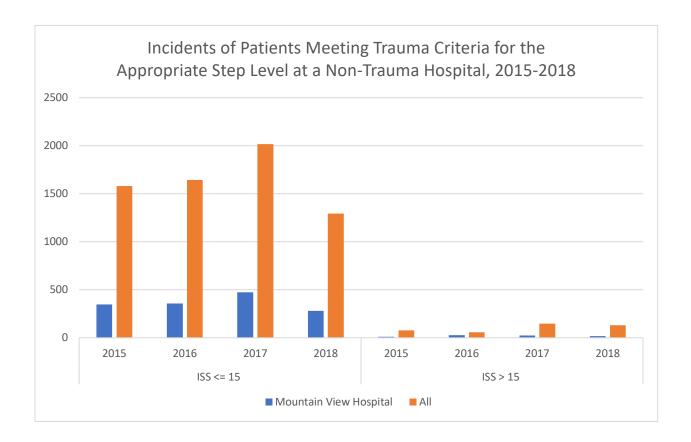
## 1F. Are the TFTC incidents for the appropriate step level increasing Step III and IV patients for a Level III center, Step 1 and 2 patients For a Level I or II center?



TFTC Incidents: Step 3	TFTC Incidents: Step 3 and 4 for Level III Center & Step 1 and 2 for a Level I or II Center,											
2013-2018												
2013         2014         2015         2016         2017         2018												
Step I or II	1279	1308	1253	1306	1303	1237						
Step III or IV	466	354	404	609	666	799						
Total	1745	1662	1657	1915	1969	2036						



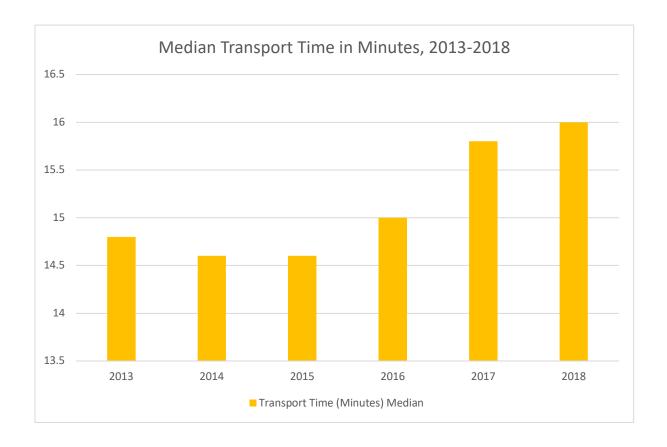
# 1G. Incidents of Patients Meeting Trauma Criteria for the Appropriate Step Level Increasing at a Non-Trauma Hospital



Incidents of Patients Meeting Trauma Criteria for the Appropriate Step Level at a Non-Trauma Hospital, 2015-2018								
		ISS <			ISS > 15			
	2015	2016	2017	2018	2015	2016	2017	2018
<b>Mountain View Hospital</b>	346	356	474	281	12	26	24	17
All	1580	1644	2016	1295	79	57	149	131



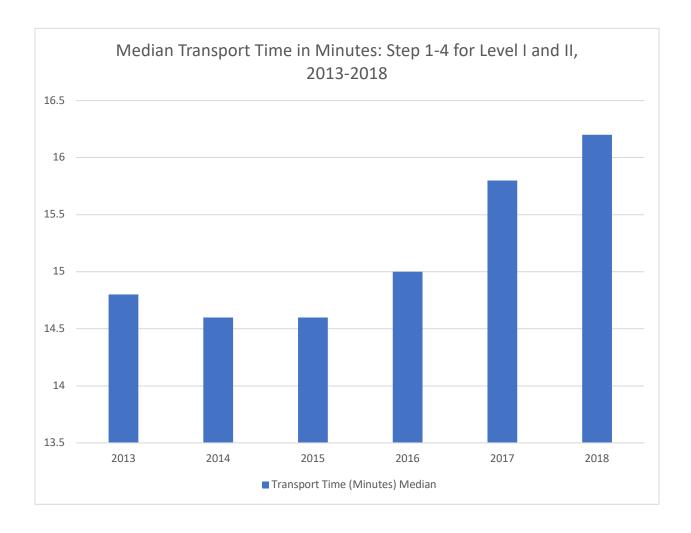
#### 2A. Are TFTC Transport Times Increasing for a Population Demonstrating Growth?



Median Transport Time in Minutes, 2013-2018										
		2013	2014	2015	2016	2017	2018			
Transport Time (Minutes)	N	5394	5577	5748	6424	10676	11464			
	Median	14.80	14.60	14.60	15.00	15.80	16.00			



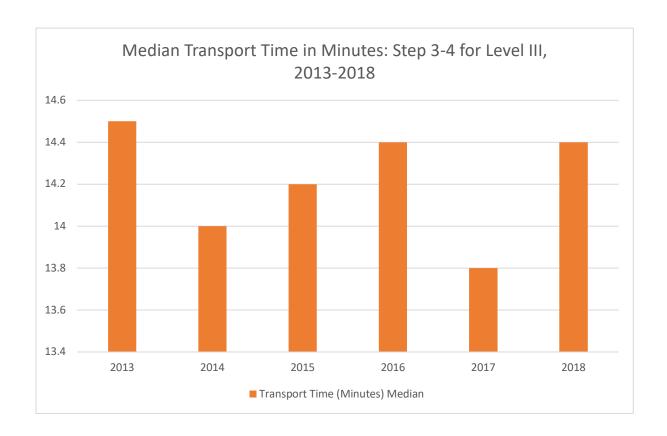
#### 2B. Median Transport Time by Year: Step 1-4 for Level I and II, 2013-2018



Median Transport Time in Minutes: Step 1-4 for Level I and II, 2013-2018									
	2013	2014	2015	2016	2017	2018			
Transport Time (Minutes)	Transport Time (Minutes) N				5842	9993	10663		
<b>Median</b> 14.80 14.60 14.60 15.00 15.80 16.20									



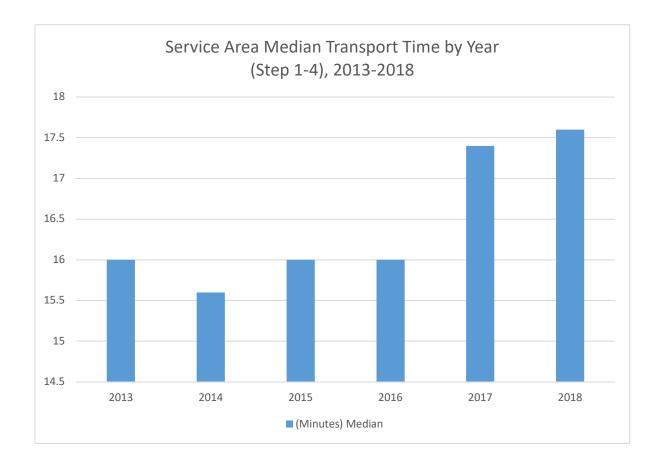
#### 2B. Median Transport Time by Year: Step 3-4 for Level III, 2013-2018



Median Transport Time by Year: Step 3-4 for Level III, 2013-2018										
	2013	2014	2015	2016	2017	2018				
Transport Time (Minutes)	N	438	312	371	579	666	790			
	Median	14.50	14.00	14.20	14.40	13.80	14.40			



#### 2C. Service Area Median Transport Time by Year: Step 1-4, 2013-2018

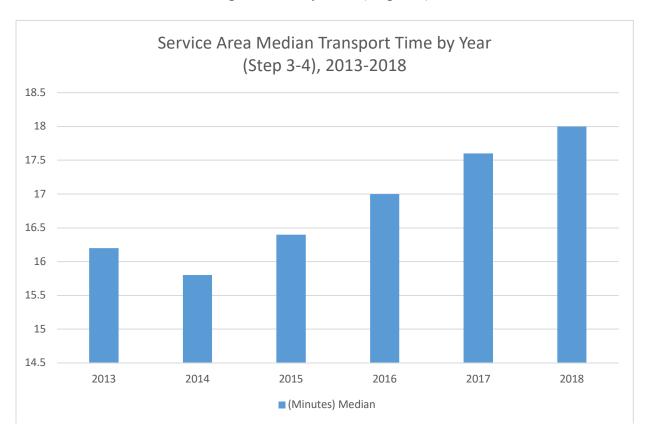


Ser	Service Area Median Transport Time by Year									
(Step 1-4), 2013-2018										
	2013	2014	2015	2016	2017	2018				
	1									
Transport Time (Minutes)	N	785	827	830	886	1723	1530			
(	Median	16.00	15.60	16.00	16.00	17.40	17.60			

Note: Mountain View service area includes the following zip codes: 89084, 89166, 89131, 89149, 89138, 89143, 89129, 89031, 89130, 89134, 89144, 89145, 89032, 89128, 89108, and 89085.



#### 2C. Service Area Median Transport Time by Year (Step 3-4), 2013-2018

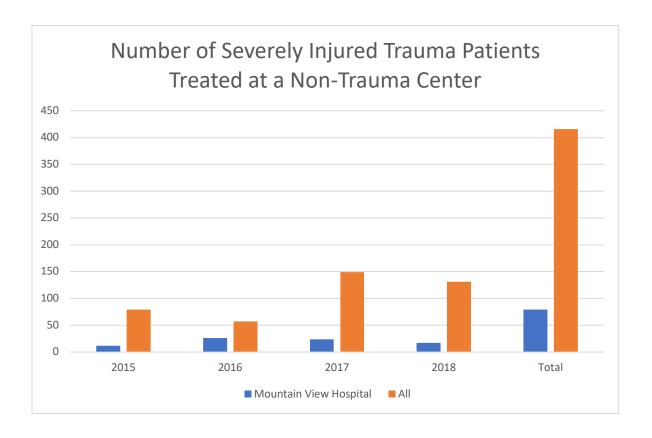


Service Area Median Transport Time by Year (Step 3-4), 2013-2018										
2013   2014   2015   2016   2017							2018			
Transport Time	N	622	657	670	720	1534	1377			
(Minutes)	Median	16.20	15.80	16.40	17.00	17.60	18.00			

Note: Mountain View service area includes the following zip codes: 89084, 89166, 89131, 89149, 89138, 89143, 89129, 89031, 89130, 89134, 89144, 89145, 89032, 89128, 89108, and 89085.



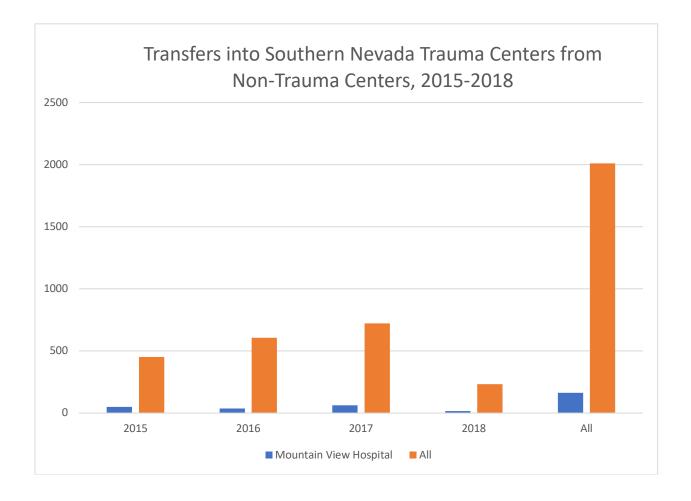
# 4A. Are the Number of Severely Injured Trauma Patients being treated at a Non-Trauma Center Increasing?



Number of Severely Injured Trauma Patients Treated at a Non-Trauma										
Center										
2015   2016   2017   2018   Total										
Mountain View Hospital	12	26	24	17	79					
All	79	57	149	131	416					



#### 4B. Transfers into Southern Nevada Trauma Centers from Non-Trauma Centers, 2015-2018



Transfers into Southern Nevada Trauma Centers from Non-Trauma Centers, 2015-									
2018									
2015 2016 2017 2018 All									
Mountain View Hospital	50	36	62	16	164				
All	452	605	721	232	2010				

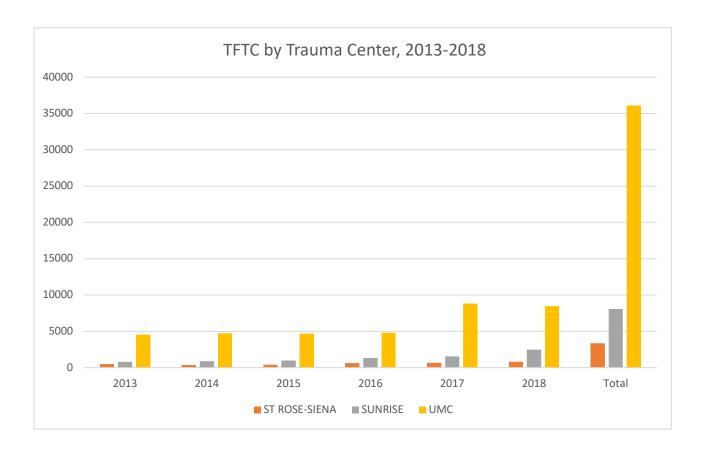


# 4C. Are Step 1 and/or Step 2 TFTC incidents for the current Level III center catchment area increasing?

Year Sent	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2014	104	35.86	104	35.86
2016	96	33.10	200	68.97
2017	90	31.03	290	100.00



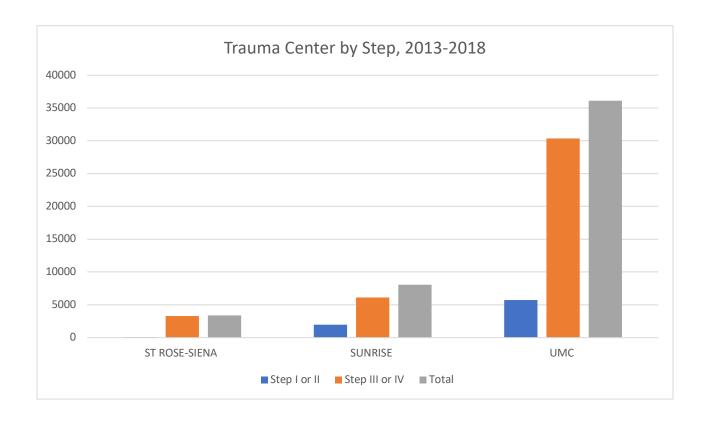
#### 5. TFTC by Trauma Centers, 2013-2018



TF	TFTC by Trauma Centers, 2013-2018											
	2013   2014   2015   2016   2017   2018											
ST ROSE-SIENA	482	369	421	612	683	810	3377					
SUNRISE	824	882	1001	1322	1545	2496	8070					
UMC	4542	4724	4687	4836	8832	8485	36106					
UNIC	4342	4/24	4007	4030	0032	0703	30100					

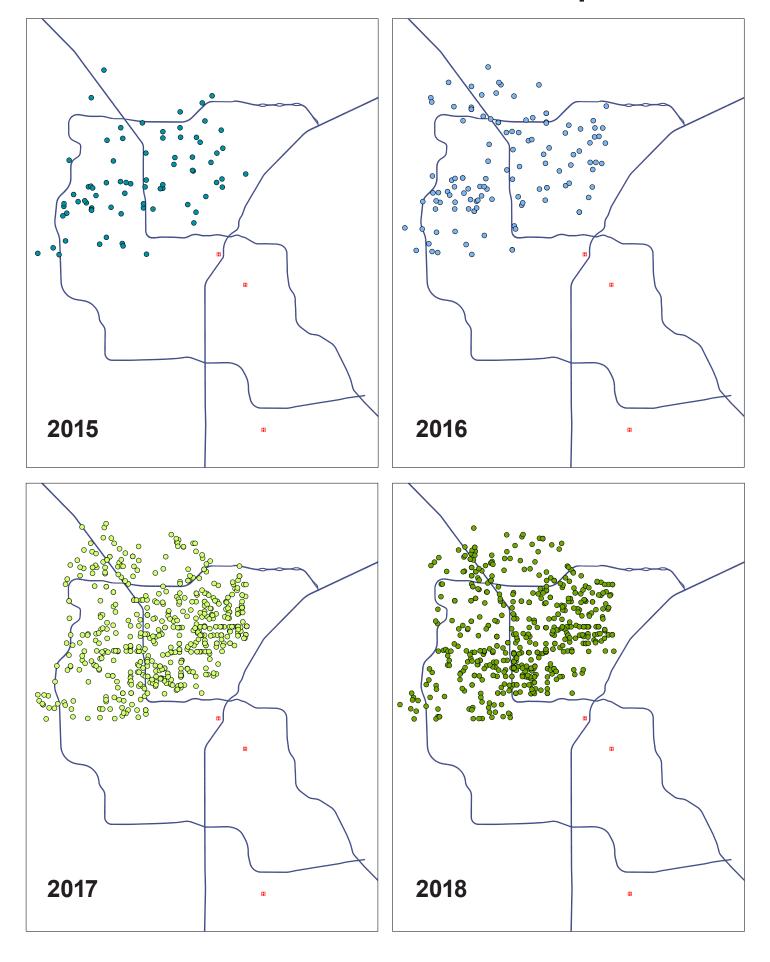


#### 5. Trauma Centers by Year Currently in the Las Vegas Valley, 2013-2018

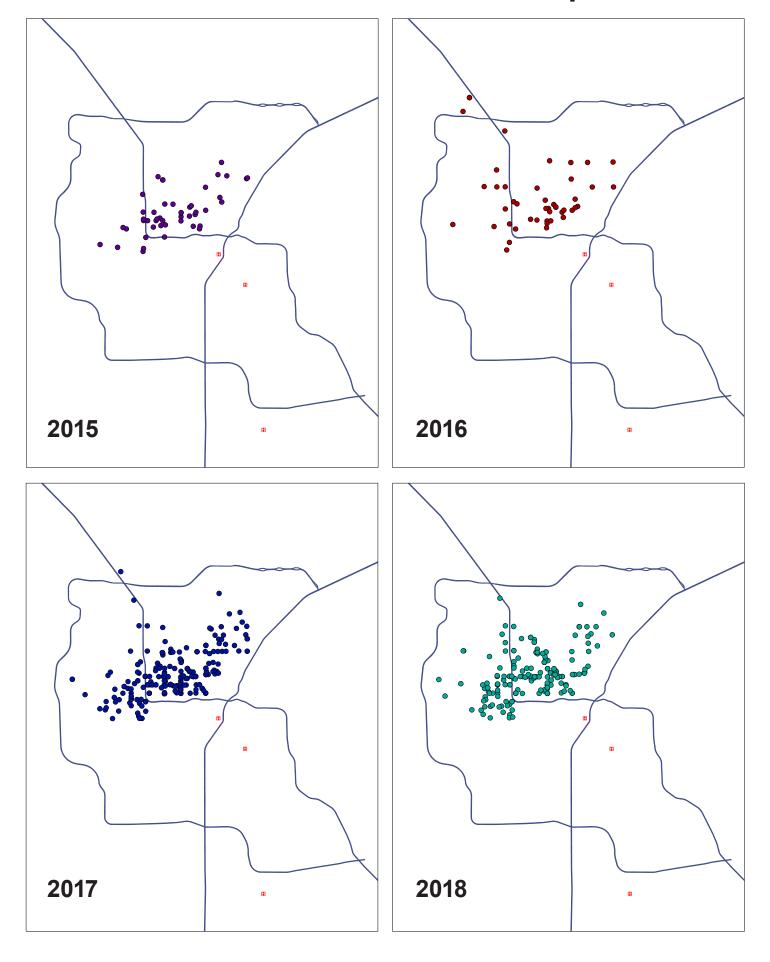


Trauma Centers by Year Currently in the Las Vegas Valley, 2013-2018					
	Step I or II	Step III or IV	All		
ST ROSE-SIENA	77	3300	3377		
SUNRISE	1953	6114	8070		
UMC	5733	30373	36106		

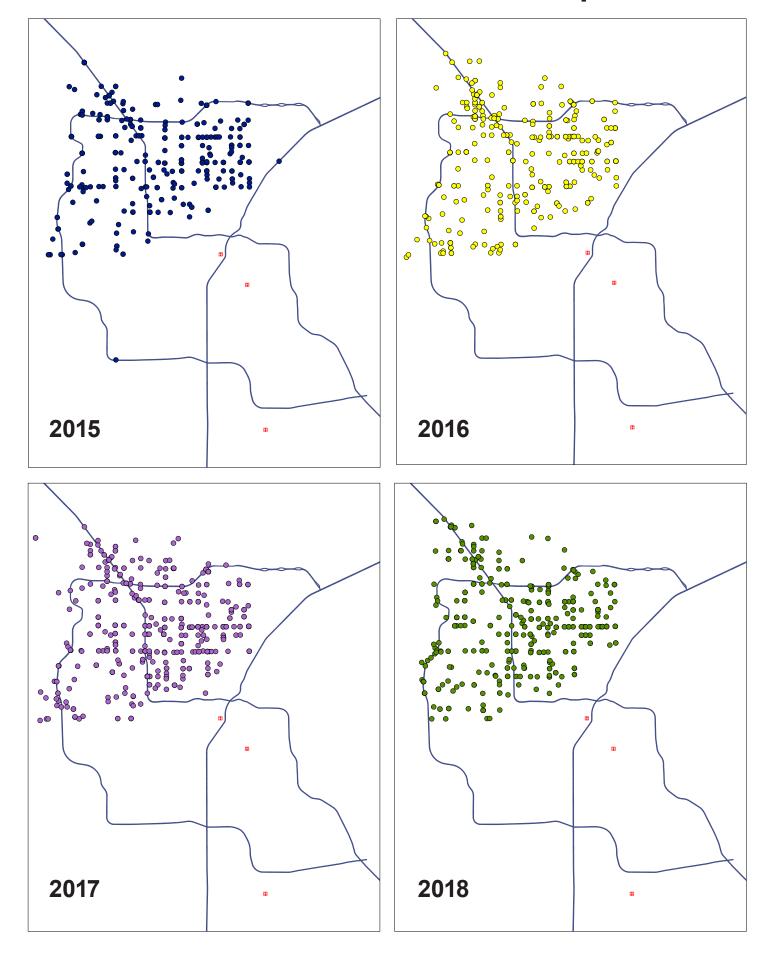
# **MOUNTAIN VIEW: TFTC Time Step 4 > 15**



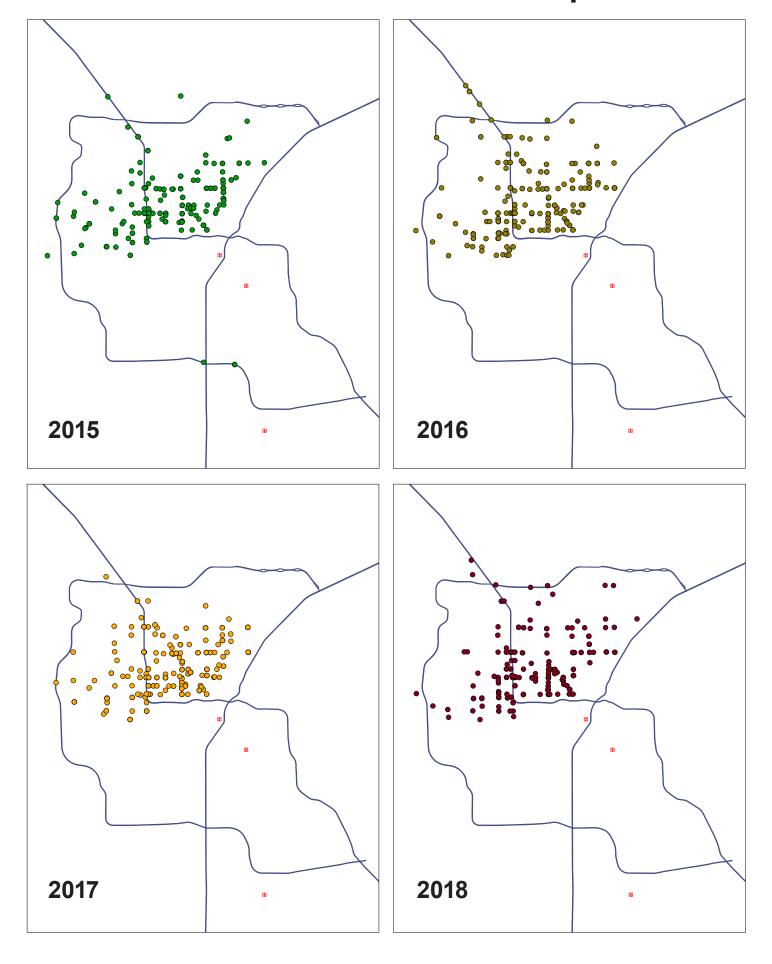
# **MOUNTAIN VIEW: TFTC Time Step 4 <= 15**



# **MOUNTAIN VIEW: TFTC Time Step 3 > 15**



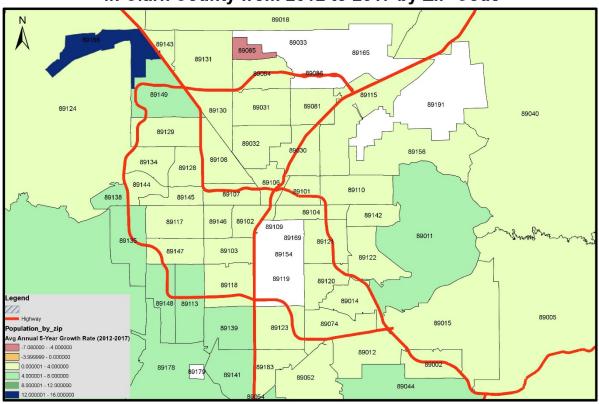
# **MOUNTAIN VIEW: TFTC Time Step 3 <= 15**





Appendix A: Average 5-Year Population Growth Rate 2012-2017

# Average 5-Year Population Growth Rate in Clark County from 2012 to 2017 by ZIP Code



**Data Source: Nevada State Demographer** 

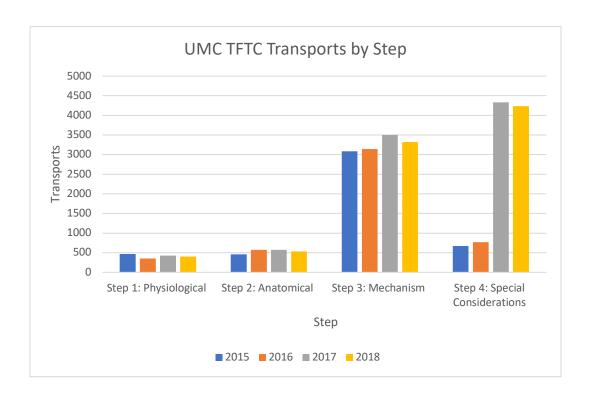


Appendix B: Average Annual 5-Year Growth Rate by Zip Code in Clark County, 2012-2017

i ip p o i i di i i i i i i i i i i i i i i i	age / illitaar 5 Tear Growth Mate	,	0.0 000
89002	2.28	89046	-1.16
89004	1.85	89052	2.78
89005	0.76	89054	1.25
89007	-0.49	89074	2.8
89011	6.47	89081	3.83
89012	3.77	89084	3.72
89014	1.74	89085	-7.08
89015	0.86	89086	25.2
89018	1.51	89101	0.67
89019	0.44	89102	1.02
89021	1.1	89103	1.56
89027	4.31	89104	1.34
89029	3.19	89106	0.94
89030	1.63	89107	1.18
89031	2.09	89108	1.57
89032	1.33	89110	1.13
89034	16.86	89113	7.5
89039	1.46	89115	1.83
89040	0.96	89117	1.71
89044	6.9	89118	0.63
89120	0.89	89142	1.89
89121	2.06	89143	1.61
89122	2.35	89144	1.48
89123	1.83	89145	1.86
89124	1.65	89146	1.22
89128	1.51	89147	2.76
89129	1.68	89148	7.65
89130	1.22	89149	4.19
89131	1.94	89156	1.69
89134	0.68	89161	5.74
89135	4.5	89166	15.79
89138	7.39	89178	5.22
89139	5.24	89179	25.86
89141	5.26	89183	0.85



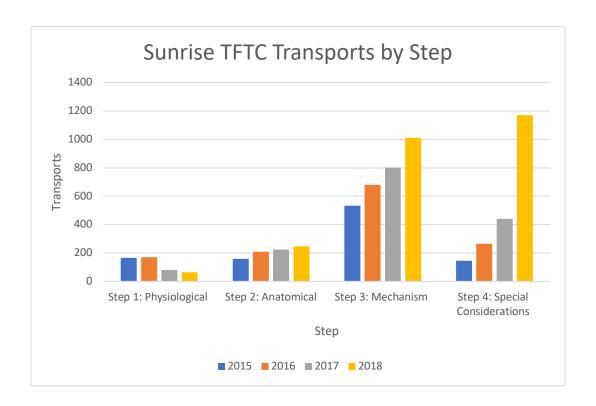
Appendix C: UMC TFTC Transports by Step 2015-2018



UMC TFTC Transports by Step					
Category	2015	2016	2017	2018	
Step 1: Physiological	468	351	424	398	
Step 2: Anatomical	461	576	576	529	
Step 3: Mechanism	3086	3138	3499	3323	
Step 4: Special Considerations	672	771	4333	4235	



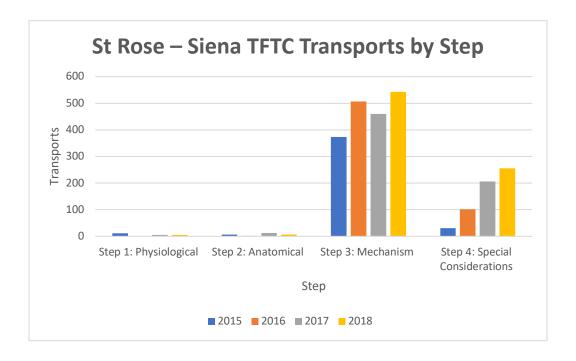
Appendix D: Sunrise TFTC Transports by Step 2015-2018



Sunrise TFTC Transports by Step				
Category	2015	2016	2017	2018
Step 1: Physiological	166	170	80	63
Step 2: Anatomical	158	209	223	247
Step 3: Mechanism	533	679	802	1011
Step 4: Special Considerations	144	264	440	1172



Appendix E: St. Rose - Siena TFTC Transports by Step 2015-2018



St Rose – Siena TFTC Transports by Step				
Category	2015	2016	2017	2018
Step 1: Physiological	11	1	5	5
Step 2: Anatomical	6	2	12	6
Step 3: Mechanism	373	507	460	543
Step 4: Special Considerations	31	102	206	256



#### Appendix F: Trauma Registry Patients Living Outside of Clark County, NV 2014-2018

Trauma Registry Patients Living Outside of Clark County, NV, 2014-2018					
2014	2015	2016	2017	2018	Total
148	297	1050	1348	1520	4363

Note: Patient residence zip codes outside of Clark County, NV were totaled to generate this frequency. Unknown zip codes and zip codes fields with "n/a" were excluded in this calculation. Service area for Clark County included the following zip codes: 89002 89004 89005 89007 89011 89012 89014 89015 89018 89019 89021 89027 89029 89030 89031 89032 89034 89039 89040 8904489046 89052 89054 89074 89081 89084 89085 89086 89101 8910289103 89104 89106 89107 89108 89110 89113 89115 89117 8911889120 89121 89122 89123 89124 89128 89129 89130 89131 8913489135 89138 89139 89141 89142 89143 89144 89145 89146 8914789148 89149 89156 89161 89166 89178 89179 89183 89006 89009 89036 89053 89070 89087 89105 89109 89111 89112 89114 89116 89133 89136 89137 89140 89153 89157 89158 89160 89165 89169 89170 89173 89180 89191 89119 89125 89126 89127 89132 89016 89024 89025 89028 and 89033.



Appendix G: Needs Based Assessment of Trauma Systems (NBATS) by the American College of Surgeons for Clark County Trauma System

ACS disclaimer: This tool does not attempt to specifically assess the impact of adding an additional center to a TSA, nor does it attempt to determine the relative merit of a particular facility becoming a trauma center within the TSA.

#### 1. Population

Total TSA population of less than 600,000 received 2 points

Total TSA population of 600,000–1,200,000 received 4 points

Total TSA population of 1,200,000–1,800,000 received 6 points

Total TSA population of 1,800,000–2,400,000 received 8 points

Total TSA population of greater than 2,400,000 received 10 points

Points Assigned: 8

2. Median Transport Times (combined air and ground-scene only no transfer)

Median transport time of less than 10 minutes received 0 points

#### Median transport time of 10-20 minutes receives 1 point

Median transport time of 21–30 minutes receives 2 points

Median transport time of 31–40 minutes receives 3 points

Median transport time of greater than 41 minutes receives 4 points

Points Assigned: 1

3. Lead Agency/System Stakeholder/Community Support

Lead agency support for a trauma center (if none exist) or an additional trauma center in the TSA – 5 points (Board of Health)

Trauma System Advisory Committee (or equivalent body) statement of support for a trauma center (if none exist) or an additional trauma center in the TSA – 5 points (RTAB)

Community support demonstrated by letters of support from 25–50% of city and county governing bodies within the TSA –  $\frac{1}{2}$  point

Community support demonstrated by letters of support from over 50% of city and county governing bodies within the TSA -2 points

Points Assigned: 11



4. Severely injured patients (ISS > 15) discharged from acute care facilities not designated as Level I, II, or III trauma centers.

Discharges of 0-200 severely injured patients receives 0 points

Discharges of 201–400 severely injured patients receives 1 point

Discharges of 401–600 severely injured patients receives 2 points

Discharges of 601–800 severely injured patients receives 3 points

Discharges of greater than 800 severely injured patients receives 4 points

Points Assigned: 2

5. Level I Trauma Centers

For the existence of each verified Level I trauma center already in the TSA assign 1 negative point

For the existence of each verified Level II trauma center already in the TSA assign 1 negative point

For the existence of each verified Level III trauma center already in the TSA assign 0.5 negative points

Points Assigned: -2.5

6. Numbers of severely injured patients (ISS > 15) seen in trauma centers (Level I and II) already in the TSA

The expected number of high-ISS patients is calculated as:

500 x (# of Level I and Level II centers in the TSA) = 1000

If the TSA has more than 500 severely injured patients above the expected number assign 2 points

If the TSA has 0-500 severely injured patients above the expected number assign 1 point

If the TSA has 0-500 fewer severely injury patients than the expected number assign 1 negative point

If the TSA has more than 500 fewer severely injured patients than the expected number assign 2 negative points

Points Assigned: 2

Total Points Assigned: 21.5

145



The following scoring system shall be used to allocate trauma centers within the TSAs:

TSAs with scores of 5 points or less shall be allocated 1 trauma center

TSAs with scores of 6-10 points shall be allocated 2 trauma centers

TSAs with score of 11-15 points shall be allocated 3 trauma centers

TSAs with scores of 16-20 points shall be allocated 4 trauma centers

#### Assessment:

- Assuming the point system continues, if the TSA with scores of 21-25 points shall be allocated 5 trauma centers. As indicated, the NBATS <u>recommends 5 trauma centers</u> for the Clark County Trauma System.
  - This would require the addition of <u>2 additional trauma centers</u>, presumably Level III.
- 2. Without Lead Agency & Stakeholder support, the NBATS would score a 11.5 to 12.5 (adding 1-2 points for community support letters already obtained by applicants) and would indicate a Trauma System of <u>3 Trauma Centers</u>.
  - This would require the addition of <u>no additional trauma centers</u> to the existing Clark County trauma system.
- 3. Adjusting for NBATS performance as indicated in two separate studies (Uribe-Reitz California Test and Evaluation of the Georgia trauma system) would indicate the NBATS under indicates by 20%.
  - Score Adjustments:
    - o 21.5 x .2 = 4.3 Score= 25.8
      - Allocated Trauma Centers recommended: 6
    - o 11.5 x .2 = 2.3 Score= 13.8
      - Allocated Trauma Centers recommended: 3