Emergency Medical Services Advisory Board

WASHOE COUNTY HEALTH DISTRICT
ENHANCING QUALITY OF LIFE

MEETING NOTICE AND AGENDA

Date and Time of Meeting: Thursday, May 6, 2021, 9:00 a.m.

Unless and until the Governor of Nevada issues a Directive or Order requiring a physical location to be designated for meetings of public bodies where members of the public are permitted to attend and participate, no members of the public will be allowed in the Washoe County auditoriums due to concerns for public safety resulting from the COVID-19 emergency and pursuant to the Governor's Declaration of Emergency Directive 006 Section 1, which suspends the requirement in NRS 241.023 (1)(b)that there be a physical location designated for meetings of public bodies where members of the public are permitted to attend and participate.

This meeting will be held by teleconference only.

Please attend this meeting via the link listed below or via phone.
(Please be sure to keep your devices on mute and do not place the meeting on hold)
Zoom meeting link:
https://us02web.zoom.us/j/87862462483?pwd=S3QxdldoNUx6OW1QUU56dnk0TE5nZz09
Meeting ID: 878 6246 2483
Passcode: 734743

1. ***Roll Call and Determination of Quorum**
2. ***Public Comment**
   Limited to three (3) minutes per person. No action may be taken.

   As required by the Governor's Declaration of Emergency Directive 006 Section 2, members of the public may submit public comment by teleconference by logging into the ZOOM webinar by accessing the link noted above. NOTE: This option will require a computer with audio and video capabilities. Additionally, public comment can be submitted via email to dspinola@washoecounty.us or by leaving a voice message at: (775) 326-6049. Voice messages received will be transcribed for entry into the record and delivery to the Board members prior to the meeting. The County will make reasonable efforts to include all comments received for public comment by email and voicemail in the record. Please try to provide comments by 4:00 p.m. on May 5, 2021.
3. **Consent Items** (For Possible Action)
   Matters which the Emergency Medical Services Advisory Board may consider in one motion. Any exceptions to the Consent Agenda must be stated prior to approval.

   A. **Approval of Draft Minutes**
      February 4, 2021

B. **Introduction and welcome to new Board member Dr. John Hardwick**
Neil Krutz

4. ***Prehospital Medical Advisory Committee (PMAC) Update**
Dr. John Hardwick

5. **Discussion and possible approval of EMSAB revised bylaws** (For Possible Action)
Julie Hunter

6. ***Program and Performance Data Updates**
Andrea Esp
Program Updates – Program Activities, Data Performance and Mass Gatherings Updates

7. **Presentation, discussion, possible approval, and recommendation to present the revised Washoe County EMS Strategic Plan (2019-2023), as a requirement of the Interlocal Agreement for the Emergency Medical Services Oversight, to the District Board of Health** (For Possible Action)
Julie Hunter

8. **Presentation and possible approval of the 2019 Washoe County Trauma Data Report** (For Possible Action)
Anastasia Gunawan

9. ***REMSA Update**
Adam Heinz
REMSA Quarterly EMS Advisory Report

10. ***Sparks Fire Department Updates**
Chief Jim Reid
EMS Updates

11. ***Truckee Meadows Fire and Rescue Updates**
Chief Joe Kammann
Truckee Meadows Fire Protection District (TMFPD) Advisory Board Update

12. ***City of Reno and REMSA CAD-to-CAD Implementation Project Update**
Kathleen Nickel

13. ***Board Comment**

Limited to announcements or issues for future agendas. No action may be taken.

14. ***Public Comment**

Limited to three (3) minutes per person. No action may be taken.

As required by the Governor's Declaration of Emergency Directive 006 Section 2, members of the public may submit public comment by teleconference by logging into the ZOOM webinar by accessing the link noted above. NOTE: This option will require a computer with audio and video capabilities. Additionally, public comment can be submitted via email to dspinola@washoecounty.us or by leaving a voice message at: (775) 326-6049. Voice messages received will be transcribed for entry into the record and delivery to the Board members prior to the meeting. The County will make reasonable efforts to include all comments received for public comment by email and voicemail in the record. Please try to provide comments by 4:00 p.m. on May 5, 2021.

Adjournment

Items on the agenda may be taken out of order, combined with other items, withdrawn from the agenda, moved to the agenda of

a later meeting; or they may be voted on in a block. Items with a specific time designation will not be heard prior to the stated time, but may be heard later. An item listed with asterisk (*) next to it is an item for which no action will be taken.

The Emergency Medical Services Advisory Board meetings are accessible to the disabled. Disabled members of the public who require special accommodations or assistance at the meeting are requested to notify Administrative Health Services at the Washoe County Health District, 1001 E. 9th St, Reno, NV 89512, or by calling 775.326-6049, at least 24 hours prior to the meeting.

Time Limits: Public comments are welcome during the Public Comment periods for all matters whether listed on the agenda or not. All comments are limited to three (3) minutes per person. Additionally, public comment of three (3) minutes per person may be heard during individual action items on the agenda. Persons are invited to submit comments in writing on the agenda items and/or comment on that item at the Board meeting. Persons may not allocate unused time to other speakers.

Response to Public Comments: The Emergency Medical Services Advisory Board can deliberate or take action only if a matter has been listed on an agenda properly posted prior to the meeting. During the public comment period, speakers may address matters listed or not listed on the published agenda. The Open Meeting Law does not expressly prohibit responses to public comments by the Emergency Medical Services Advisory Board. However, responses from the Board members to unlisted public comment topics could become deliberation on a matter without notice to the public. On the advice of legal counsel and to ensure the public has notice of all matters the Emergency Medical Services Advisory Board will consider, Board members may choose not to respond to public comments, except to correct factual inaccuracies, ask for Health District Staff action or to ask that a matter be listed on a future agenda. The Emergency Medical Services Advisory Board may do this either during the public comment item or during the following item: "Board Comments – Limited to Announcements or Issues for future Agendas."

Pursuant to NRS 241.020, Notice of this meeting was posted electronically at the following locations:

Washoe County Health District Website www.washoecounty.us/health
State of Nevada Website: https://notice.nv.gov

Pursuant to the Declaration of Emergency Directive 006, NRS 241 (1)(b), the requirement to physically post agendas is hereby suspended.

Supporting materials are also available at the Washoe County Health District Website www.washoecounty.us/health pursuant to the requirements of NRS 241.020. Ms. Dawn Spinola, Administrative Secretary to the Emergency Medical Services Advisory Board, is the person designated by the Emergency Medical Services Advisory Board to respond to requests for supporting materials. Ms. Spinola is located at the Washoe County Health District and may be reached by telephone at (775) 326-6049 or by email at dspinola@washoecounty.us.

Emergency Medical Services Advisory Board

WASHOE COUNTY HEALTH DISTRICT
ENHANCING QUALITY OF LIFE

Meeting Minutes

Date and Time of Meeting: Thursday, February 4, 2021, 9:00 a.m.

The meeting was held by teleconference.

1. *Roll Call and Determination of Quorum

Acting Chair Krutz called the meeting to order at 9:07 a.m.

The following members and staff were present:

Members present: Neil Krutz
Eric Brown
Kevin Dick
Joe Macaluso
Doug Thornley

Members absent: None

Ms. Spinola verified a quorum was present.

Staff present: Dania Reid, Deputy District Attorney
Andrea Esp, EMS/PHP Program Manager, Acting EPHP Director
Julie Hunter, EMS Coordinator
Anastasia Gunawan, EMS Statistician
Dawn Spinola, Administrative Secretary, Recording Secretary

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2. *Public Comment

Limited to three (3) minutes per person. No action may be taken.

Acting Chair Krutz opened the public comment period. As there was no one wishing to speak, Acting Chair Krutz closed the public comment period.

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3. Consent Items (For Possible Action)

Matters which the Emergency Medical Services Advisory Board may consider in one motion. Any exceptions to the Consent Agenda must be stated prior to approval.

A. Approval of Draft Minutes
August 6, 2020

B. Ratification of Unanimous Vote in Favor of Item #6 from August 6, 2020 EMSAB Meeting, Approval of the EMS Oversight Program FY20 Mid-Year Data Report

Mr. Dick moved to approve the Consent agenda. Mr. Brown seconded the motion, which passed unanimously.

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4. Discussion and Possible Election of:

A. EMS Advisory Committee Chair (For Possible Action)

Mr. Dick moved to nominate Neil Krutz as the Chair of the Board. Mr. Brown seconded the motion, which passed unanimously.

B. EMS Advisory Committee Vice Chair (For Possible Action)

Mr. Dick moved to nominate Eric Brown as the Vice Chair of the Board. Mr. Thornley seconded the motion, which passed unanimously.

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5. *Program and Performance Data Updates, Andrea Esp
Program Updates – Member activities, Data Performance Reports, Mass Gatherings

Ms. Esp reviewed the staff report and offered to answer any questions.

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6. *City of Reno and REMSA CAD-to-CAD Implementation Project Update, Adam Heinz with written comments from Rishma Khimji
Progress Updates- Functionality acceptance demo completed, next steps.

Mr. Heinz updated the Board on the ongoing successes of the regional CAD-to-CAD implementation project, as outlined in Ms. Khimji's letter (attached to Board packet).

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7. *REMSA Update, Adam Heinz
Program Updates – Update to the tiered response changes implemented on August 13 as a result of the COVID-19 response.

Mr. Heinz provided a presentation to the Board (Attachment A), which reviewed REMSA's system enhancements and the benefits they had provided to the community.

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8. *Sparks Fire Department Updates, Chief Jim Reid
Program Updates – Number of EMS calls for 2020, seeking approval from Sparks City Council for additional engine to be paramedic on February 9, 2021.

Chief Reid provided an overview of his staff report and offered to answer any questions.

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9. *Truckee Meadows Fire and Rescue Updates, Chief Joe Kammann
Program Updates – COVID-19 status, mutual aid responses to REMSA.

Chief Kammann briefly reviewed aspects of his staff report, emphasizing that TMFPD had been very busy with pushing out COVID vaccine PODs to the citizens.

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10. Board Requests from August 6, 2020:

A. ***Briefing on operational administrative analysis of the Reno Fire Department conducted by the Center for Public Safety Management with an Emphasis on EMS-Related Items** (Continued from August 6, 2020 meeting)
Chief Dave Cochran

Chief Cochran reviewed the information contained in the slides of his PowerPoint presentation (Attachment B).

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11. *Board Comment

Limited to announcements or issues for future agendas. No action may be taken.

Board members had no comments or requests.

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12. *Public Comment

Limited to three (3) minutes per person. No action may be taken.

Chair Krutz opened the public comment period. As there was no one wishing to speak, Acting Chair Krutz closed the public comment period.

Adjournment

Chair Krutz adjourned the meeting at 9:58 a.m.

REMSA
EMS System Enhancements
Tiered Response Program Update
EMS Advisory Board Update
February 3, 2021

REMSA

Always Ready

1

ILS Response to Non-Emergent Calls

August 13, 2020

System Enhancement Drivers:

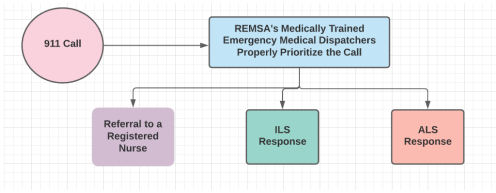
- Reduce the utilization of REMSA ALS Paramedic units to low acuity calls.
- Increase availability of REMSA ALS Paramedic units for high acuity, emergency calls.
- Increase the number and diversify response assets in our EMS system.
- Proactive approach to unknown variables of COVID-19 / Influenza

Strategically & Safely Adding Additional Capacity into our Community

Safely pairing the RIGHT level of care for the RIGHT patient

2

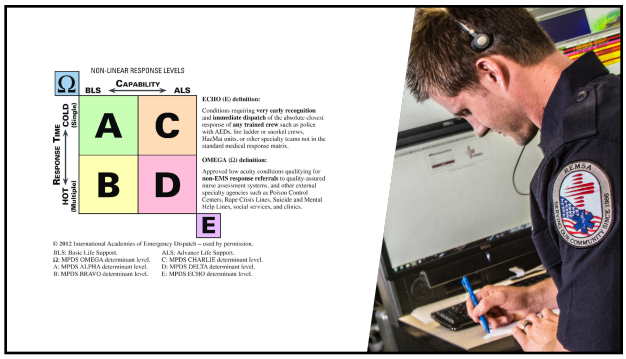
How Does it Work?



REMSA

Always Ready

3



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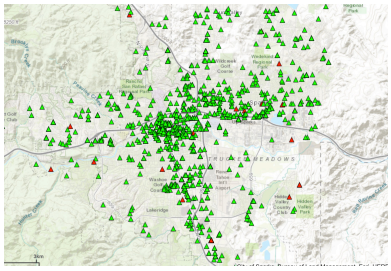
Geographic Response Boundary



REMSA

Always Ready

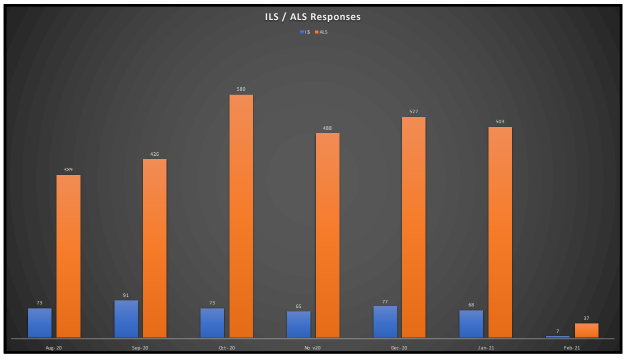
5

ILS Responses to Non-Emergent Calls

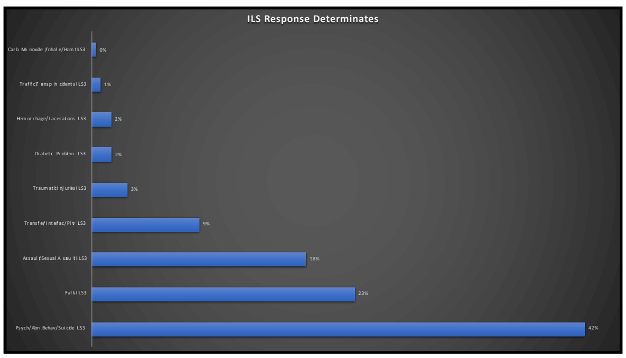
Operational Metrics

- 454 Responses
- 224 Transports
- Average Response Time: 9:27
- 15 ALS Intercepts

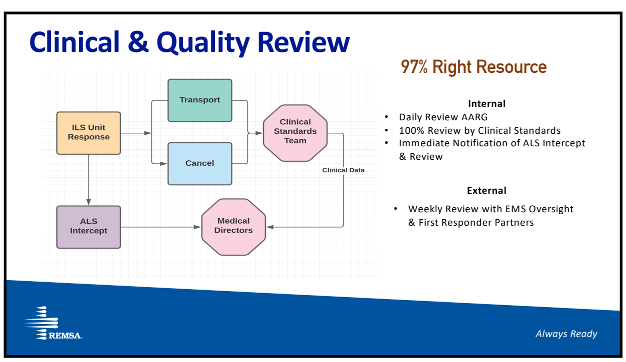
6


ILS / ALS Responses
ILS
ALS
73
389
91
426
73
580
65
488
77
527
68
503
7
37
Aug-20
Sep-20
Oct-20
Nov-20
Dec-20
Jan-21
Feb-21

7


ILS Response Determinates
0%
1%
2%
2%
3%
9%
18%
23%
42%

8


Clinical & Quality Review
Transport
ILS Unit Response
Cancel
Clinical Standards Team
Clinical Data
ALS Intercept
Medical Directors
97% Right Resource
Internal
• Daily Review AARG
• 100% Review by Clinical Standards
• Immediate Notification of ALS Intercept & Review
External
• Weekly Review with EMS Oversight & First Responder Partners
REMSA
Always Ready

9

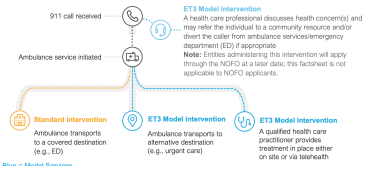
ALS Intercept Clinical Review

Pain Management	2
Behavioral Health (Physical / Chemical Restraints)	3
ALOC (Narcan)	2
Cardiac Workup	3
ALOC Intoxicated	3
Pediatric	1
No ALS Intervention	1

REMSA Always Ready

10

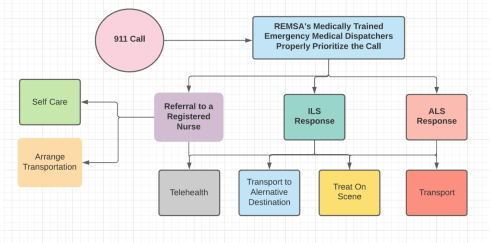
Emergency Triage, Treat, Transport (ET3)



REMSA Always Ready

11

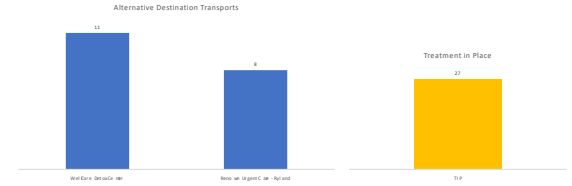
Triage, Treat, Transport



REMSA Always Ready

12

Emergency Triage, Treat, Transport (ET3)



REMSA

Always Ready

13

Emergency Triage, Treat, Transport ET3

2020 : 1,268 (1.7%)

REMSA

Always Ready

14

REMSA

www.remsahealth.com

15

1

CPSM Study Overview

A. January 2019, the Center for Public Safety Management, LLC (CPSM) was commissioned by the City of Reno to perform an operational and administrative analysis of the Reno Fire Department that involved the following major outcomes:

i. Examination of the Department's organizational structure and culture;
ii. Performance of a gap analysis, comparing the "as is" state of the department to the best practices of industry standards;
iii. Recommendation of a management framework to ensure accountability, increased efficiency and improved performance;
iv. Conducting a data-driven forensic analysis to identify actual workload; and
v. Identification and recommendation of appropriate staffing and deployment levels for each discrete operational and support function in the department.

2

CPSM Study Overview

B. In the course of their analysis, CPSM performed:

i. Information gathering, data collection and analysis, data certification
ii. Conducted a three-day on-site visit to meet with internal Fire Department and City staff, as well as external stakeholders
iii. CPSM included representatives from IAFF Local 731, REMSA and the District Board of Health in the data gathering and interview process.
iv. Prepared a final report to the City in September 2019

C. CPSM's final report included thirty-two recommendations in regard to City and Fire Department operations that are based on best practices derived from the NFPA, CPSM, ICMA, the U.S. Fire Administration, the International Association of Emergency Managers and FEMA.

3

CPSM Study Recommendations In-Progress

Recommendation #8: The City should work REMSA, area EMS Advisory Boards, and the Washoe County Health District to implement a common radio frequency that is utilized by ambulance and fire first responders on all EMS calls.

- The Franchise Agreement, Article 5 states that REMSA is required to have 800 MHz, but has not yet done so. RFD currently utilizes 800 MHz radios. RFD continues to work with REMSA, the EMS Advisory Board and WC Health District to implement a common radio frequency utilized by ambulance and first responders on EMS Calls. Long term opportunities exist to establish a common radio frequency as the radio system is updated to P25 under the Joint Operating Committee.

4

CPSM Recommendation

CPSM Recommendation #31:

The City of Reno and REMSA should evaluate options for consolidating the REMSA dispatch operations into Reno Public Safety Dispatch.

CPSM Recommendation #32:

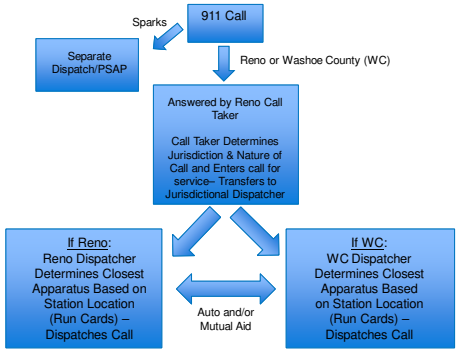
Reno Public Safety Dispatch and the REMSA Dispatch Center should move as quickly as possible to establish a CAD-to-CAD interface between their two centers.

CPSM Recommendation #20:

RFD and REMSA should develop a process in which the call-screening process and call priority determinants established by the REMSA dispatch center are communicated directly to responding RFD units.

5

WC FIRE SERVICE DELIVERY PROCESS



6

CPSM Recommendation

CPSM Recommendation #21:

RFD should reestablish a full and unrestricted automatic response arrangement with Truckee Meadows Fire Protection District.

7

Automatic Aid & Mutual Aid Definitions

- Automatic Aid
  - *Automatic aid is assistance that is dispatched automatically by contractual agreement between two fire departments.*
    - *Level of Service*
    - *Number of Resources*
    - *Duplication of Services?*
- Mutual Aid
  - *Mutual aid is the ability for any jurisdiction to request assistance based on a specific incident that either agency deems additional resources are required.*
    - *Based on contractual relationship.*

8

Current Cooperative Aid Agreement

- Cooperative Agreement between the Truckee Meadows Fire Protection District and the City of Reno:
  - Updated/Renewed 6/13/19
  - Provides Automatic Aid Response for Fires Only
  - Limited Response Area
  - Established Pursuant to SB 185 (2015)
  - Automatic Aid Provided at No Cost for First 12 Hours of Response
  - Agreement Termination Date June 30, 2021, or within 30 days Written Notice from either Agency
  - Includes the ability to request Mutual Aid

9

Automatic Aid Location Advantages

- Four Primary Areas in Reno/TMFPD/SFPD Where Jurisdictions/Stations are in Close Proximity:
  - Stead/Lemmon Valley:
    - Reno Station #9 & TMFPD Station #44
  - Verdi/Somersett:
    - Reno Station #19 & TMFPD Station #40
  - Damonte Ranch/Geiger Grade:
    - Reno Station #12 & TMFPD Station #33
  - Caughlin Ranch:
    - Reno Station #7 & TMFPD Station #40
  - Hidden Valley
    - Reno Station #6 & TMFPD Station #37
  - Sun Valley
    - Reno Station #2 & TMFPD Station #45

10

Closest Available Resource Response

- Benefits:
  - Provides the highest level of service to all citizens in the region
  - Possible cost savings
  - Requires no additional funding, personnel or apparatus
  - Eliminates duplication of service
- Challenges:
  - Reaching agreement between jurisdictions
  - Equitable service levels
  - Labor Contracts

11

Reno Fire Department

Questions?

12

WASHOE COUNTY
HEALTH DISTRICT
ENHANCING QUALITY OF LIFE

STAFF REPORT
EMERGENCY MEDICAL SERVICES ADVISORY BOARD
MEETING DATE: May 6, 2021

TO: EMS Advisory Board Members

FROM: Julie Hunter, EMS Coordinator
jdhunter@washoecounty.us

SUBJECT: Discussion and possible approval of EMSAB revised bylaws

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SUMMARY

The EMS Oversight Program has suggested revisions to the Emergency Medical Services Advisory Board (EMSAB) bylaws to closer align with the language in the Interlocal Agreement (ILA). This agenda item is for discussion and possible approval of the revisions to the Emergency Medical Services Advisory Board bylaws.

PREVIOUS ACTION

- March 2015 the EMS Advisory Board approved and adopted the bylaws.
- October 2016 the EMS Advisory Board approved and adopted the revised bylaws.

BACKGROUND

The Advisory Board is established to provide for concurrent review of present topics within the Washoe County EMS system by the City of Reno, a municipal corporation in the State of Nevada, and the City of Sparks, a municipal corporation in the State of Nevada and Washoe County, a political subdivision of the State of Nevada.

The Advisory Board is established by the Inter-Local Agreement (ILA) for Emergency Medical Services Oversight, executed on August 26, 2014. The purpose of the Advisory Board is to review reports, evaluations and recommendations of the Regional Emergency Medical Services Oversight Program, discuss issues related to regional emergency medical services and make recommendations to the respective jurisdictional Boards and/or the District Board of Health.

The suggested revisions to the language in the bylaws closer align to the language in the ILA for consistency purposes. Below is a summary of the he suggested revisions:

- Clarification of Article I, Section 3.a. – Duties of the Advisory Board
- Recommend removing Section 3.d. in Article I
- Revision to Article I, Section 4 – Terms/Board Administration
    - Chair and vice-chair shall serve for one year, not two.
- Revision to Article II, Section 4 – Terms/Board Administration
    - Removal of language regarding the Open Meeting Law, with the addition of the language to Article III, Section 1 – Meetings.

FISCAL IMPACT

There is no fiscal impact to the Board on this agenda item.

RECOMMENDATION

Staff recommends the Board approve the suggested revisions to the EMSAB bylaws.

POSSIBLE MOTION

Should the Board agree with staff's recommendation a possible motion would be:

"Move to approve the suggested revisions to the EMSAB bylaws."

Attachment

EMS Advisory Board draft revised bylaws

EMERGENCY MEDICAL SERVICES ADVISORY BOARD

BYLAWS

Approved
March 2015

Approved
October 2016

Dates of Revision/Review
May 2021

WASHOE COUNTY HEALTH DISTRICT
ENHANCING QUALITY OF LIFE

Public Health
Prevent. Promote. Protect.

ARTICLE I – NAME AND PURPOSE

Section 1 - Name

The name of this body is the Regional Emergency Medical Services (EMS) Advisory Board (hereinafter referred to as "Advisory Board").

Section 2 - Purpose

The Advisory Board is established to provide for concurrent review of present topics within the Washoe County EMS system by the City of Reno, a municipal corporation in the State of Nevada ("RENO"), and the City of Sparks, a municipal corporation in the State of Nevada ("SPARKS") and Washoe CoI.~~u~~nty, a political subdivision of the State of Nevada ("WASHOE").

The Advisory Board is established by the Inter-Local Agreement (ILA) for Emergency Medical Services Oversight, executed on August 26, 2014. The purpose of the Advisory Board is to review reports, evaluations and recommendations of the Regional Emergency Medical Services Oversight Program (the "Program"), discuss issues related to regional emergency medical services and make recommendations to the respective jurisdictional Boards and/or the District Board of Health ("DBOH").

Section 3 - Duties

Duties of the Advisory Board shall include:

a. Make recommendations to the District Health Officer and/or the DBOH related to performance standards and attainment of those standards, medical protocols, communication, coordination, and other items of importance to a high-performing Regional Emergency Medical Services system.
b. Strive to implement recommendations of the Program, or submit those recommendations to their governing bodies for consideration and possible action if determined necessary and appropriate by the respective managers.
c. Make recommendations to the respective Boards regarding participating in working groups established by the Program for coordination, review, evaluation, and continuous improvement of Emergency Medical Services.
~~d. Support the Program in establishing and utilizing a Computer Aided Dispatch ("CAD") to CAD two-way interface with Regional Emergency Medical Services Authority ("REMSA") which provides for the instantaneous and simultaneous transmission of call-related information for unit status updates.~~

~~e.~~d. Work cooperatively with the Program to provide input to the development of the Five-Year Strategic Plan, as it relates to the continuous improvement of Emergency Medical Services.

~~f.~~e. Support and work cooperatively with the Program to achieve the Program duties as outlined in the ILA.

ARTICLE II – MEMBERSHIP

Section 1 - Board Composition

The Advisory Board shall be composed of the following members:

a. City Manager, Reno
b. City Manager, Sparks
c. County Manager, Washoe County
d. District Health Officer
e. Emergency Room Physician (DBOH Appointment)
f. Hospital Continuous Quality Improvement (CQI) Representative (DBOH Appointment)

Section 2 - DBOH Appointments

Two positions within the Advisory Board are appointed by the District Board of Health and will serve staggered terms to ensure stability of the Advisory Board. The Emergency Room Physician appointment, a representative of the Prehospital Medical Advisory Committee, will be for three (3) years while the Hospital Continuous Quality Improvement (CQI) representative will serve a four (4) year term. Both appointees are eligible for reappointment for up to two additional two (2) year terms.

Section 3 - Resignation and Termination of DBOH Appointees

Advisory Board membership may be resigned at any time to the DBOH in writing.

Upon the resignation or expiration of the DBOH appointee's term, the member shall continue to serve until his/her successor qualifies and is appointed.

Section 4 - Terms/Board Administration

The Advisory Board shall elect a chair and a vice-chair from among its membership to manage the meetings. The chair and vice-chair shall serve for ~~two~~ one (1~~2~~) year~~s~~. Both positions are eligible for reappointment for up to ~~two~~ one ~~additional~~ subsequent ~~two~~ one (~~2~~1) year term~~s~~, limited to two consecutive years.

~~The Advisory Board shall be subject to the requirements of Nevada Revised Statutes Chapter 241, Open Meeting Laws. A majority of the Advisory Board constitutes a quorum for the conduct of business and a majority of the quorum is necessary to act on any matter.~~

ARTICLE III – MEETINGS

Section 1 - Meetings

The Advisory Board shall hold a minimum of one meeting per fiscal year. Additional meetings may be held at the discretion of the chair or as frequently as needed to perform the duties of the Advisory Board.

The Advisory Board shall be subject to the requirements of Nevada Revised Statutes Chapter 241, Open Meeting Laws. A majority of the Advisory Board constitutes a quorum for the conduct of business and a majority of the quorum is necessary to act on any matter.

A quorum of the Advisory Board members must be present to transact business legally – a quorum consists of four (4) Advisory Board members. A majority vote is required for any official action of the Advisory Board unless otherwise specified in the rules of order, which are defined below.

The chair presides over the meetings:

a. The chair opens the meetings.
b. The chair determines that a quorum is present by a roll call vote.
c. The chair calls the meeting to order.
d. Approval of minutes of the prior meeting.
    i. Unanimous consent can be used instead of motions to expedite the proceedings.
e. Every meeting of the Advisory Board shall be conducted in accordance with the adopted agenda.
    i. The written agenda will be approved by the chair prior to distribution and will be distributed to all ~~committee~~ Advisory Board members at least three (3) working days prior to the meeting.
f. The vice-chair shall preside over meetings when the chair is absent.

Section 2 - Voting

Each Advisory Board member will have one (1) vote. Proxy votes are not permitted.

Section 3 - Attendance

Consistent meeting attendance and participation is critical to the success of the Advisory Board. Members who are unable to attend an Advisory Board meeting will notify the Chair of the Advisory Board and Program staff. Program staff will record attendance of all members at each Advisory Board meeting.

Section 4 - Minutes

Minutes shall be kept and recorded of all meetings and forwarded to all members of the Advisory Board as promptly as possible following the adjournment of each meeting.

Section 5 - Conflict of Interest

A member of the Advisory Board may not vote on a matter with respect to which the member has a conflict of interest.

ARTICLE IV – AMENDMENTS

Section 1 - Amendments

The bylaws may be amended as necessary at any Advisory Board meeting, but will be reviewed at minimum every two (2) years. All amendments requests must be indicated at the Advisory Board meeting as a future agenda item and require an approval of a two-thirds vote for adoption. Amendments take effect immediately upon approval of the Advisory Board.

Approved and adopted this 6th day of May 2021, by the Emergency Medical Services Advisory Board.

~~John Slaughter~~Neil Krutz, Chair

EMERGENCY MEDICAL SERVICES ADVISORY BOARD

BYLAWS

Approved
March 2015

Approved
October 2016

Dates of Revision/Review
May 2021

WASHOE COUNTY HEALTH DISTRICT
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ARTICLE I – NAME AND PURPOSE

Section 1 - Name

The name of this body is the Regional Emergency Medical Services (EMS) Advisory Board (hereinafter referred to as "Advisory Board").

Section 2 - Purpose

The Advisory Board is established to provide for concurrent review of present topics within the Washoe County EMS system by the City of Reno, a municipal corporation in the State of Nevada ("RENO"), and the City of Sparks, a municipal corporation in the State of Nevada ("SPARKS") and Washoe County, a political subdivision of the State of Nevada ("WASHOE").

The Advisory Board is established by the Inter-Local Agreement (ILA) for Emergency Medical Services Oversight, executed on August 26, 2014. The purpose of the Advisory Board is to review reports, evaluations and recommendations of the Regional Emergency Medical Services Oversight Program (the "Program"), discuss issues related to regional emergency medical services and make recommendations to the respective jurisdictional Boards and/or the District Board of Health ("DBOH").

Section 3 - Duties

Duties of the Advisory Board shall include:

a. Make recommendations to the District Health Officer and/or the DBOH related to performance standards and attainment of those standards, medical protocols, communication, coordination, and other items of importance to a high-performing Regional Emergency Medical Services system.
b. Strive to implement recommendations of the Program, or submit those recommendations to their governing bodies for consideration and possible action if determined necessary and appropriate by the respective managers.
c. Make recommendations to the respective Boards regarding participating in working groups established by the Program for coordination, review, evaluation, and continuous improvement of Emergency Medical Services.
d. Work cooperatively with the Program to provide input to the development of the Five-Year Strategic Plan, as it relates to the continuous improvement of Emergency Medical Services.
e. Support and work cooperatively with the Program to achieve the Program duties as outlined in the ILA.

ARTICLE II – MEMBERSHIP

Section 1 - Board Composition

The Advisory Board shall be composed of the following members:

a. City Manager, Reno
b. City Manager, Sparks
c. County Manager, Washoe County
d. District Health Officer
e. Emergency Room Physician (DBOH Appointment)
f. Hospital Continuous Quality Improvement (CQI) Representative (DBOH Appointment)

Section 2 - DBOH Appointments

Two positions within the Advisory Board are appointed by the District Board of Health and will serve staggered terms to ensure stability of the Advisory Board. The Emergency Room Physician appointment, a representative of the Prehospital Medical Advisory Committee, will be for three (3) years while the Hospital Continuous Quality Improvement (CQI) representative will serve a four (4) year term. Both appointees are eligible for reappointment for up to two additional two (2) year terms.

Section 3 - Resignation and Termination of DBOH Appointees

Advisory Board membership may be resigned at any time to the DBOH in writing.

Upon the resignation or expiration of the DBOH appointee's term, the member shall continue to serve until his/her successor qualifies and is appointed.

Section 4 - Terms/Board Administration

The Advisory Board shall elect a chair and a vice-chair from among its membership to manage the meetings. The chair and vice-chair shall serve for one (1) year. Both positions are eligible for reappointment for up to one subsequent one (1) year term, limited to two consecutive years.

ARTICLE III – MEETINGS

Section 1 - Meetings

The Advisory Board shall hold a minimum of one meeting per fiscal year. Additional meetings may be held at the discretion of the chair or as frequently as needed to perform the duties of the Advisory Board.

The Advisory Board shall be subject to the requirements of Nevada Revised Statutes Chapter 241, Open Meeting Laws. A majority of the Advisory Board constitutes a quorum for the conduct of business and a majority of the quorum is necessary to act on any matter.

A quorum of the Advisory Board members must be present to transact business legally – a quorum consists of four (4) Advisory Board members. A majority vote is required for any official action of the Advisory Board unless otherwise specified in the rules of order, which are defined below.

The chair presides over the meetings:

a. The chair opens the meetings.
b. The chair determines that a quorum is present by a roll call vote.
c. The chair calls the meeting to order.
d. Approval of minutes of the prior meeting.
    i. Unanimous consent can be used instead of motions to expedite the proceedings.
e. Every meeting of the Advisory Board shall be conducted in accordance with the adopted agenda.
    i. The written agenda will be approved by the chair prior to distribution and will be distributed to all Advisory Board members at least three (3) working days prior to the meeting.
f. The vice-chair shall preside over meetings when the chair is absent.

Section 2 - Voting

Each Advisory Board member will have one (1) vote. Proxy votes are not permitted.

Section 3 - Attendance

Consistent meeting attendance and participation is critical to the success of the Advisory Board. Members who are unable to attend an Advisory Board meeting will notify the Chair of the Advisory Board and Program staff. Program staff will record attendance of all members at each Advisory Board meeting.

Section 4 - Minutes

Minutes shall be kept and recorded of all meetings and forwarded to all members of the Advisory Board as promptly as possible following the adjournment of each meeting.

Section 5 - Conflict of Interest

A member of the Advisory Board may not vote on a matter with respect to which the member has a conflict of interest.

ARTICLE IV – AMENDMENTS

Section 1 - Amendments

The bylaws may be amended as necessary at any Advisory Board meeting, but will be reviewed at minimum every two (2) years. All amendments requests must be indicated at the Advisory Board meeting as a future agenda item and require an approval of a two-thirds vote for adoption. Amendments take effect immediately upon approval of the Advisory Board.

Approved and adopted this 6th day of May 2021, by the Emergency Medical Services Advisory Board.

_____

Neil Krutz, Chair

WASHOE COUNTY HEALTH DISTRICT
ENHANCING QUALITY OF LIFE

STAFF REPORT
REGIONAL EMERGENCY MEDICAL SERVICES ADVISORY BOARD
MEETING DATE: May 6, 2021

TO:	Regional EMS Advisory Board Members
FROM:	Andrea Esp, Public Health Preparedness and EMS Program Manager 775-326-6042, aesp@washoecounty.us
SUBJECT:	EMS Oversight Program and Performance Data Updates

Program Activities

EMS Partners/Task Force:

The EMS Coordinator hosted bi-weekly meetings in March and April with the EMS Task Force (REMSA, Reno Fire, Sparks Fire, Truckee Meadows Fire EMS) to review the recommendations in the TriData Report and the CPSM Report (EMS-related recommendations only). The team agreed that the recommendations will be categorized as complete, no longer relevant or prioritized. The recommendations that remain a priority are:

- Completion of the Computer Aided Dispatch (CAD) CAD-to-CAD interface
- Data on patient arrival – data on start of CPR or AED
- Training
- Communications – P25 system
- Legal protection to all EMS programs
- Priority response
- Continuous Quality Improvement
- Automatic response agreements
- Standardize performance measures across all agencies

At the next Task Force meeting the team will determine which priorities should be added to the Strategic Plan and begin working on agreed upon EMS Standards to be followed by both REMSA and Fire. Strategic Plan updates and EMS Standards will be presented to EMSAB after completion of the updates for review and approval. Additionally, this group will no longer be referred to as a Task Force and will be referred to as the Joint Advisory Committee.

REMSA Exemption Requests:

REMSA staff and the EMS Coordinator agreed to continue to review and approve blanket exemptions to response times between the DBOH-approved dates of February 25 and April 26, 2021 and are currently reviewing the System Overload exemption requests for April 2021. The exemption is retroactive to July 2020. Table 1 summarizes REMSA's exemption requests.

	Table 1. REMSA Exemption Requests						
Exemption	**System Overload**	**Status 99**	**Weather**	**Other**	**Total**	**Under Review**	**Approved**
January 2021	23	2	*3 (BWE)		25		28
February 2021	5				5		5
March 2021	11						11

*Blanket Weather Exemption (BWE) requests received were for three separate weather incidents which lead to 13 late calls.

EMS Statistician:

The EMS statistician continues to provide data assistance to EMS partners in Washoe County. She is also conducting data analysis and ambulance response for all EMS calls occurring within the Sparks Fire jurisdiction.

The EMS statistician also completed data preparation for the renewal of the cooperative agreement between Truckee Meadows Fire Protection District and Reno Fire Department Automatic Aid and Mutual Aid discussion. Geographic Information System (GIS) Regional Services is providing technical assistance for spatial analysis on Priority 1 and 2 emergency medical service calls over the span of Fiscal Year 2019 and Fiscal Year 2020. The data will be used as supporting documentation for an agenda item to be presented to the Board of County Commissioners this spring.

REMSA Franchise Compliance Update:

The EMS Coordinator sat in with REMSA dispatch and conducted a quarterly spot check of ambulances at the REMSA yard, per the Franchise Agreement and Franchise Agreement Checklist, on March 15, 2021. The Franchise Agreement Compliance Checklist is being reviewed and revised by the EMS Oversight Program and REMSA to closer align with the Franchise Agreement requirements and required documentation. Once the revision is complete, the Compliance Checklist will be brought to the DBOH for possible approval. The checklist was last reviewed and approved by the DBOH May 26, 2016.

Community Service Department – Application Review:

The EMS Oversight Program reviews and analyzes project applications received from the Planning and Building Divisions of the Community Services Department (CSD) and provides comments and recommendations on the projects to CSD. The Program has reviewed 22 applications since February, providing comments on two projects, no comment on 13, and seven that are still pending review. Projects that may impact EMS response are sent to REMSA and the appropriate fire agency for review and comments. EMS comments and recommendations are included in the EMS Oversight Program review letter.

EMS Oversight Plans:

The EMS Coordinator will present an overview of the Multi-Casualty Incident (MCI) Plan at the Burn Care and Mass Casualty Course on May 4, 2021 which will be provided to local hospitals and EMS responders. Revisions to the Mutual Aid Evacuation Agreement are underway and revision meetings with workgroup members will resume in April.

800MHz Radio Test:

The EMS Oversight Program conducts monthly 800MHz radio tests with all partner facilities to ensure communications are working properly, and that radios are up to date and inventoried. Twenty-two facilities are asked to participate monthly. The radio test was not conducted in April.

Data Performance Reports:

Requestor	Summary of request	Date of request	Request completed
GIS Technology Services	Number of matched Reno Fire/Truckee Meadows/REMSA Priority 1, 2 calls for Fiscal Year 2019 & 2020.	03/19/2021	03/26/2021
Sparks Fire Department	Ambulance performance for REMSA/SFD in City of Sparks for all EMS incidents occurring in March 2021.	04/13/2021	04/21/2021

Mass Gatherings:

The EMS Oversight Program received an Application Review Memo from CSD for agency comment in April regarding two upcoming events, League to Save Lake Tahoe Annual Fashion Show and Luncheon and Classic Tahoe, both occurring in Incline Village on the same date. Neither of these events meet the mass gathering requirements requiring EMS services, however, it was noted that there will be a conflict with parking due to the events occurring at the same time. This comment was provided to the staff at CSD.

WASHOE COUNTY HEALTH DISTRICT
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STAFF REPORT
EMERGENCY MEDICAL SERVICES ADVISORY BOARD
MEETING DATE: May 6, 2021

TO: EMS Advisory Board Members

FROM: Julie Hunter, EMS Coordinator
jdhunter@washoecounty.us

SUBJECT: Presentation, discussion, possible approval, and recommendation to present the revised Washoe County EMS Strategic Plan (2019-2023), as a requirement of the Interlocal Agreement for the Emergency Medical Services Oversight, to the District Board of Health.

SUMMARY

The EMS Oversight Program and the EMS partners met bi-weekly in February, March, and April 2021 to determine additions and updates to the Washoe County EMS Strategic Plan (2019-2021). This agenda item is for discussion, possible approval, and recommendation to present the revised Washoe Count EMS Strategic Plan 2019-2023, a requirement of the Interlocal Agreement for Emergency Medical Services Oversight, to the District Board of Health (DBOH).

PREVIOUS ACTION

- On May 2, 2019, the EMS Advisory Board approved the plan, with edits to be presented to the District Board of Health (DBOH).
- On May 23, 2019, the DBOH approved the plan with the suggested revisions to Goal #3 and #4.
- The last progress report on the Strategic Plan was given to EMSAB on February 6, 2020.

BACKGROUND

The EMS Oversight Program was created through an Interlocal Agreement (ILA) signed by the City of Reno (RENO), City of Sparks (SPARKS), Washoe County (WASHOE), Truckee Meadows Fire Protection District (FIRE), and the Washoe County Health District. Within the ILA there are eight duties outlined for the EMS Oversight Program.

The ILA tasks the EMS Oversight Program to "maintain a Five-Year Strategic Plan to ensure the continuous improvement of Emergency Medical Services in the area of standardized equipment, procedures, technology training, and capital investments to ensure that proper future operations continue to perform including Dispatching Systems, Automated Vehicle Locations Systems, Records Management Systems, Statistical Analysis, Regional Medical Supply and Equipment, and other matters related to strategic and ongoing Emergency Medical Services and approved by RENO, SPARKS, WASHOE and FIRE."

Beginning in August 2015, the EMS Program Manager worked with Washoe County agencies to develop a strategic plan. The stakeholders included representatives from each jurisdiction, REMSA and a regional communications representative. As part of the development of the strategic plan, the process for evaluation and update was included. Every two years, beginning in October 2018, the regional partners convened to review the status of the current strategies and objectives. Upon completion of the review of existing strategies and objectives, the EMS Oversight Program would begin to develop goals, objectives, and strategies for years 2022-2023. This would create a new rolling strategic planning document. The strategic plan, with the outline of the evaluation and update, was heard and approved at the October 6, 2016 EMS Advisory Board meeting and October 27, 2016 District Board of Heath. The review process began in August 2018 with an assessment of the current EMS Strategic Plan and discussions on future ideas for improving the EMS system. The stakeholders met monthly to revise the plan and develop new goals, objectives, and strategies. The final meeting was held on April 11, 2019 to review the final draft of the Washoe County EMS Strategic Plan 2019-2023 in its entirety, and on May 2, 2019, the EMS Advisory Board approved the plan, with edits to be presented to the DBOH. On May 23, 2019 the DBOH approved the Strategic Plan with the suggested EMSAB revisions to Goal #3 and #4. The most recent update of the plan was provided to the EMSAB February 2020, this progress report is outlined in Goal #6 of the Strategic Plan.

The EMS Coordinator started hosting bi-weekly meetings in February 2021 with the EMS Task Force (REMSA, Reno Fire, Sparks Fire, Truckee Meadows Fire EMS) to review the recommendations in the TriData Report and the CPSM Report (EMS-related recommendations only). The team agreed that the recommendations will be categorized as complete, no longer relevant or prioritized. The recommendations that remained a priority and were not included in the Strategic Plan were incorporated into the existing Goals and Objectives. These priorities include:

1. Training
2. Legal protection
3. Priority response
4. Automatic response agreements
5. Standardize performance measures across all agencies

The Task Force met April 28, 2021 to review the final suggestions for the additions of the five priorities. Below is a summary of the addition of objectives and strategies to be included in the updated plan:

- Goal #1 – Enhanced utilization of EMS resources.
    - Objective 1.1
        - Strategy 1.1.5: EMS first response, prioritize and determine who goes to what calls.
- Goal #2 – Improve pre-hospital EMS performance.
    - Objective 2.2
        - Strategy: 2.2.4: Establish full and unrestricted automatic response arrangement with EMS and Fire partners.

    - Objective 2.4: Develop/continue to conduct opportunities where agencies (REMSA and Fire) personnel can train together *quarterly*.
- Goal #4 – Enhanced EMS system through improved continuity of care.
    - Objective 4.1. Establish a regional process that continuously examines performance of the EMS system.
        - Strategy 4.1.5: Review and evaluate performance measures and standards across all agencies.
- Goal #7 (addition of) – Legal protection for all agencies
    - Objective 7.1. Research legal protection for all agencies.to ensure staff understand their legal protection.
        - Strategy 7.1.1. Research and identify legal gaps and deficiencies.
        - Strategy 7.1.2. Determine if a new bill needs to be sponsored with the addition of language that protects EMS responders by July 2022 for the next legislative session.

FISCAL IMPACT

There is no fiscal impact to the Board on this agenda item.

RECOMMENDATION

Staff recommends the Board to approve the presentation and recommend staff present the revised Washoe County EMS Strategic Plan 2019-2023 to the District Board of Health.

POSSIBLE MOTION

Should the Board agree with staff's recommendation a possible motion would be:

"Move to approve the presentation and recommend staff present the revised Washoe County EMS Strategic Plan 2019-2023 to the District Board of Health."

Attachments:
Strategic Plan Goals Redline
Final Draft Washoe County EMS Strategic Plan (2019-2023)

WASHOE COUNTY HEALTH DISTRICT

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Washoe County EMS Strategic Plan 2019-2023

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The Washoe County Emergency Medical Services (EMS) Five-Year Strategic Plan was created with EMS Advisory Board support, and developed and/or reviewed by the following agencies:

Stakeholder Organizations and County Departments

Airport Authority Fire Department
Gerlach Volunteer Fire Department
North Lake Tahoe Fire Protection District
Pyramid Lake Fire Rescue
REMSA
Reno Dispatch
Reno Fire Department
Sparks Dispatch
Sparks Fire Department
Truckee Meadows Fire Protection District
Washoe County Communications
Washoe County EMS Oversight Program
Washoe County Shared Communication System

Approved By

District Board of Health
EMS Advisory Board

Distributed To

Incline Village Community Hospital
Northern Nevada Medical Center
Renown Regional Medical Center
Saint Mary's Regional Medical Center
Stakeholder Organizations and County Departments
Veterans Affairs Sierra Nevada Health Care System

Record of Change	Date	Agency
Initial Plan approved by DBOH	05/02/2019	WCHD
Revisions Goal #1, 2 and 4 Addition of Goal #7	4/28/2021	WCHD

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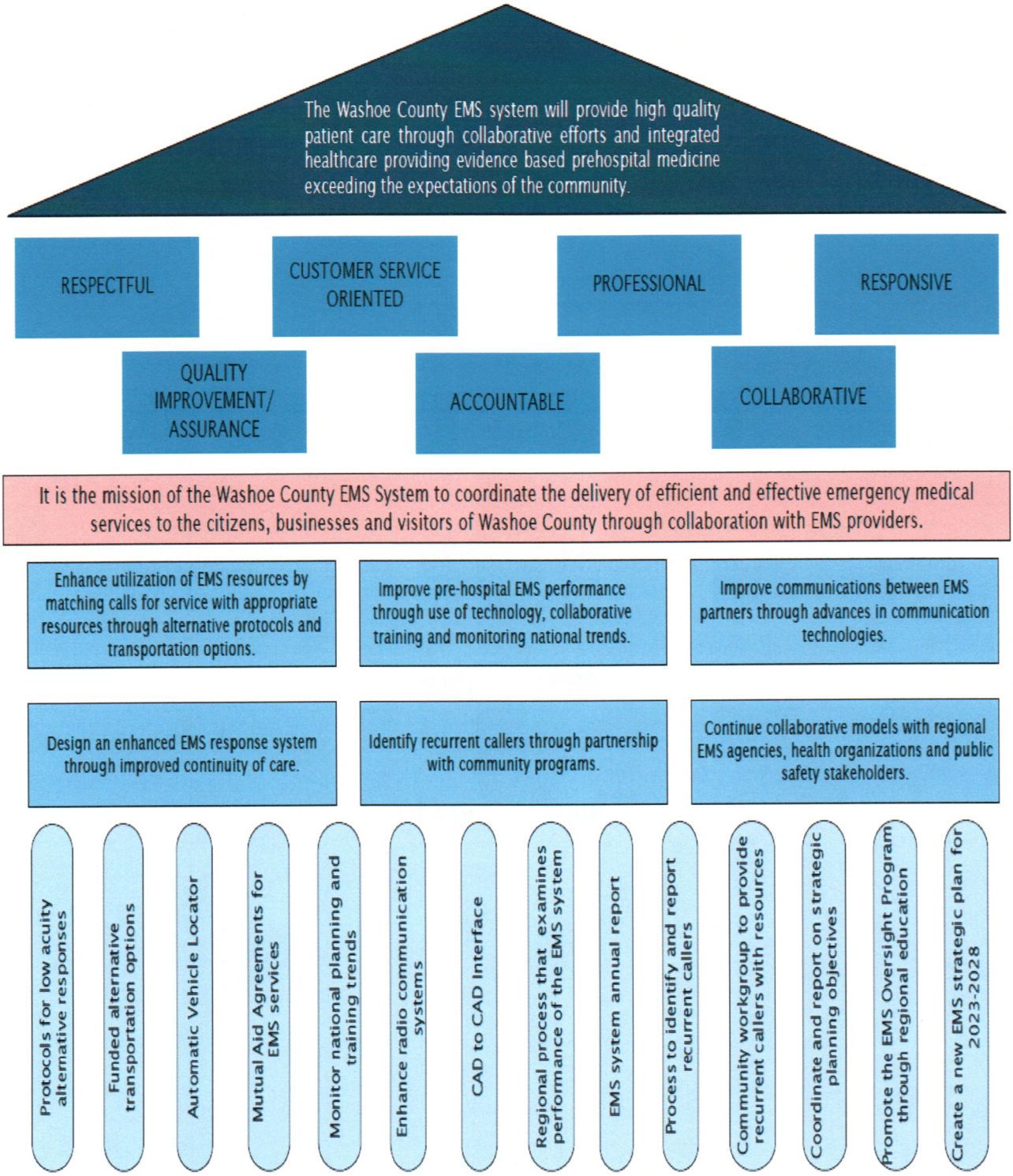
Strategic Plan at a Glance



Executive Summary

Washoe County is the second largest EMS region in the state of Nevada. It is 6,551 square miles in size and has approximately 433,000 residents. Washoe County is diverse geographically in its mountainous, urban, suburban, rural and wilderness/frontier terrain.

There are many EMS system stakeholder organizations including police and fire agencies, dispatch centers, healthcare organizations, and a contracted ambulance provider. The current ambulance contractor provides service to Washoe County; excluding the Gerlach Volunteer Fire Department service area and the North Lake Tahoe Fire Protection District.

The best EMS systems are based on collaborations among the diverse organizations that comprise the EMS system. When these organization's strengths are emphasized by system-wide integration and a culture of trust, the EMS system can more effectively capitalize on new opportunities and mitigate threats to the system. The planning process for Washoe County was supported by and involved EMS stakeholder leadership.

The initial Washoe County EMS Five-Year Strategic Plan was created between August 2015 and October 2016 to guide the future direction of the Washoe County EMS System. The assessment process evaluated the strengths and weaknesses, as well as the opportunities and threats facing the EMS system from national, regional and local influences. The information obtained through the analysis created goals to optimize the structure, processes, and outcomes of the EMS Strategic Plan, focusing on: 1) maintaining or improving clinical care and patient satisfaction; and 2) improving operational efficiency and collaboration across the region.

The strategic planning process was collaborative and included consensus building processes within the region and provided periodic updates to the EMS Advisory Board and District Board of Health. The results of this process were the EMS System's Mission, Vision, Values, Goals and Objectives. The first iteration of the EMS Strategic Plan was approved by the EMS Advisory Board on October 6, 2016, and approved by the District Board of Health on October 27, 2016.

In August 2018, the stakeholders reconvened to conduct an assessment of the current EMS Strategic Plan and discuss additional ideas for improving the EMS system. The stakeholders then met on a monthly basis to revise the plan and develop new goals, objectives and strategies. The Washoe County EMS Strategic Plan (2019-2023) was approved by the EMS Advisory Board on May 2, 2019, and approved by the District Board of Health on May 23, 2019.

The six goals within Washoe County EMS Strategic Plan are most relevant to the EMS system's ability to adapt to the changing healthcare environment, specifically focusing on pre-hospital care. Three goals within the strategic plan focus on improvements

related to clinical care and matching resources with patient needs. The remaining three goals focus on improving operational efficiencies within the county, both internally and externally through collaboration. These include proposed changes to existing processes that will positively impact the EMS System in its entirety.

Emergency Medical Services Mission, Vision and Values

Mission Statement

It is the mission of the Washoe County EMS System to coordinate the delivery of efficient and effective emergency medical services to the citizens, businesses and visitors of Washoe County through collaboration with EMS providers.

Vision

The Washoe County EMS system will provide high quality patient care through collaborative efforts and integrated healthcare, providing evidence-based prehospital medicine exceeding the expectations of the community.

Values of the Washoe County EMS System

- **Respectful:** To be open-minded of all stakeholder's views and ideas.
- **Customer Service Oriented:** To be responsive to our customers' needs, striving to provide high quality services in a respectful and courteous manner.
- **Accountable:** To be responsible for our behaviors, actions and decisions.
- **Professional:** To be dedicated in our service to the region and ourselves through adherence of recognized policies, rules and regulations. This includes maintaining the highest moral and ethical standards.
- **Responsive:** To rapidly identify emerging issues and respond appropriately.
- **Quality Improvement/Assurance:** To continuously evaluate operations, procedures and practices, to ensure the EMS system is meeting the needs of our patients and stakeholders.
- **Collaborative:** To work together toward delivering efficient and effective emergency medical services to the citizens, businesses, and visitors of Washoe County.

Emergency Medical Services Authority

Washoe County is comprised of three political jurisdictions, the City of Reno, City of Sparks and unincorporated Washoe County. In addition to the political bodies and their operational policy decisions, the State Division of Public and Behavioral Health also oversees EMS licensing and certifications within Washoe County.

There are multiple regulations that impact how the EMS system operates in Washoe County. At the State level, Nevada Revised Statute 450B is the overarching legislation that identifies minimum requirements for EMS services. In addition, the Nevada Administrative Code includes codified regulations for EMS personnel and agencies.

At the local government level, by the authority established through Nevada Revised Statute (NRS 439.370 et seq.) and the 1986 Interlocal Agreement (last amended 1993), the Washoe County Health District has jurisdiction over all public health matters in Reno, Sparks, and Washoe County through the policy-making Washoe County District Board of Health (DBOH). Through this authority, the DBOH established an exclusive ambulance franchise in August 1986 in Washoe County, excluding Gerlach and the North Lake Tahoe Fire Protection District. This Franchise was awarded to the Regional Emergency Medical Services Authority (REMSA) in May 1987. Through a regional process, the agreement was amended, restated and approved by the DBOH in May 2014. As part of the regional process, one recommendation for improvement of the delivery of patient care and outcomes and the delivery of emergency medical services, was the creation of a Regional Emergency Medical Oversight Program through an Inter Local Agreement (ILA).

The ILA was fully executed in August 2014, and is an agreement between five political jurisdictions; City of Sparks[1], City of Reno[2], Washoe County Board of County Commissioners[3], District Board of Health[4], and Truckee Meadows Board of Fire Commissioners[5]. The ILA establishes an Emergency Medical Services Advisory Board (EMS Advisory Board).

The EMS Advisory Board is comprised of the following members:

a. City Manager, Reno
b. City Manager, Sparks
c. County Manager, Washoe County
d. District Health Officer
e. Emergency Room Physician (DBOH Appointment)

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[1] Referred to as "SPARKS" within the ILA
[2] Referred to as "RENO" within the ILA
[3] Referred to as "WASHOE" within the ILA
[4] Referred to as "DISTRICT" within the ILA
[5] Referred to as "FIRE" within the ILA

f. Hospital Continuous Quality Improvement (CQI) Representative (DBOH Appointment)

The purpose of the EMS Advisory Board is to review reports, evaluations and recommendations of the Regional Emergency Medical Services Oversight Program and to discuss issues related to regional emergency medical services. The function of the EMS Advisory Board is to thoroughly discuss changes within the regional EMS system prior to making recommendations to the respective Board(s), of the five signatories, and placing items on an agenda for possible approval and implementation.

Additionally, the EMS Advisory Board can make recommendations to the District Health Officer and/or the District Board of Health related to performance standards and attainment of those standards, medical protocols, communication, coordination, and other items of importance to a high performing Regional Emergency Medical Services System, and providing for concurrent review and approval by the Managers of the City of Reno, City of Sparks and Washoe County, striving to have a uniform system maintained for the region whenever possible.

The ILA also established the Regional Emergency Medical Services Oversight Program (Program). The purpose of the Program is to provide oversight of all emergency medical services provided by the EMS personnel within the signatory jurisdictions, as well as REMSA. Additionally, the Program is expected to achieve the duties outlined within the ILA. The program consists of a Program Manager, Program Coordinator and Statistician. The eight duties specifically detailed within the ILA are:

1. Monitor the response and performance of each agency providing Emergency Medical Services and provide recommendations to each agency for the maintenance, improvement, and long-range success of the Emergency Medical Services;

2. Coordinate and integrate provision of Medical Direction for RENO, SPARKS, WASHOE, FIRE and REMSA providing emergency medical services;

3. Recommend regional standards and protocols for RENO, SPARKS, WASHOE, FIRE and REMSA;

4. Measure performance, analysis of system characteristics, data and outcomes of the Emergency Medical Services and provide performance measurement and recommendations to RENO, SPARKS, WASHOE, FIRE and REMSA;

5. Collaborate with REMSA, RENO, SPARKS, WASHOE, FIRE and DISTRICT on analysis of EMS response data and formulation of recommendations for modifications or changes to the Regional Emergency Medical Response Map;

6. Identify sub-regions as may be requested by RENO, SPARKS, WASHOE, FIRE or the DISTRICT to be analyzed and evaluated for potential recommendations

regarding EMS response services in order to optimize the performance of system resources;

7. Provide a written Annual Report on the State of Emergency Medical Services to RENO, SPARKS, WASHOE, FIRE and REMSA, covering the preceding fiscal year (July 1st to June 30th), containing measured performance in each agency including both ground and rotary wing air ambulance services provided by REMSA in Washoe County; the compliance with performance measures established by the District Emergency Medical Services Oversight Program in each agency, and audited financial statements and an annual compliance report by REMSA as required in the exclusive Emergency Medical Ambulance Service Franchise;

8. Maintain a Five-Year Strategic Plan to ensure the continuous improvement of Emergency Medical Services in the area of standardized equipment, procedures, technology training, and capital investments to ensure that proper future operations continue to perform, including Dispatching Systems, Automated Vehicle Locations Systems, Records Management Systems, Statistical Analysis, Regional Medical Supply and Equipment, and other matters related to strategic and ongoing Emergency Medical Services and approved by RENO, SPARKS, WASHOE and FIRE.

The ILA also outlines the duties of the signatories, which support the expectation that the strategic planning objectives will be achieved. Those duties are:

a. Providing information, records, and data on Emergency Medical Services dispatch and response from their respective Public Safety Answering Points (PSAPs) and Fire Services, for review, study and evaluation by DISTRICT.

b. Participating in working groups established by DISTRICT for coordination, review, evaluation, and continuous improvement of Emergency Medical Services.

c. Participating in establishing and utilizing a Computer Aided Dispatch (CAD) - to - CAD two-way interface with REMSA, which provides for the instantaneous and simultaneous transmission of call-related information for unit status updates;

d. Working cooperatively with DISTRICT to provide input to the development of the Five Year Strategic Plan and to ensure consistent two-way communication and coordination of the Emergency Medical Services System between RENO, SPARKS, WASHOE, FIRE, and REMSA in the future, as technologies, equipment, systems, and protocols evolve;

e. Participating on the Regional Emergency Medical Services Advisory Board;

f. Striving to implement recommendations of DISTRICT, or submitting those recommendations to their governing bodies for consideration and possible

action, if determined necessary and appropriate by the respective managers; and

g. Submitting recommendations regarding the Emergency Medical Services System to DISTRICT for implementation, or for consideration and possible action by the District Board of Health, if determined necessary and appropriate by the District Health Officer.

Strategic Plan Process, Objectives and Implementation

Washoe County has a two tiered system response to emergency medical calls. When an individual dials 9-1-1, the call routes through one of three Public Safety Answering Points (PSAPs): Reno, Sparks or Washoe County. Jurisdictional fire departments are dispatched to a medical call by PSAP personnel. If appropriate, the caller is then transferred to REMSA's communications center for Emergency Medical Dispatch (EMD). EMD allows REMSA dispatch to prioritize the caller's chief complaint, to dispatch appropriate resources, and provide pre-arrival instruction to the caller.

There are several agencies and organizations involved in the response to an emergency medical call. The EMS Advisory Board recognizes the need to provide optimal emergency care under the varied conditions throughout Washoe County. Therefore, the EMS Advisory Board strives to influence the coordination of all stakeholders, as it develops and sustains a system to ensure appropriate and adequate emergency medical services. With this in mind, the Five-Year EMS strategic plan was constructed.

To ensure the objectives of the entire region were considered, the EMS Working Group convened and participated in a SWOT analysis. The SWOT analysis looks at the strengths (internal), weaknesses (internal), opportunities (external), and threats (external) for the regional EMS system. Representatives from both dispatch and operations for the EMS agencies provided input and feedback on the development of the strategic plan. The EMS Oversight Program met frequently with the representatives to review the goals, objectives, and strategies, while discussing realistic timelines for implementation. These meetings were an integral part of the process to ensure the regional planning goals mirrored the jurisdictional strategic planning goals of the individual EMS agencies. This culminated in the development of a regional strategic plan for the EMS Advisory Board's consideration.

The Washoe County EMS strategic plan includes goals, objectives and strategies. The six goals of the strategic plan are broad statements, to identify future achievements of the Washoe County EMS system. Each goal includes objectives designed to measure progress towards the attainment of the goal. The strategies for each goal describe a major approach or method for attaining the objectives.

Additionally, the strategic plan outlines the method to achieve effective and efficient solutions to system-wide challenges. The strategic plan calls for maximum collaboration, to achieve the objectives and strategies within the five year planning period (2019-2023). Through continued collaboration, the strategic plan can be updated to capitalize on new opportunities or to mitigate threats to the system. This

process will ensure key stakeholders remain involved in regional emergency medical services planning activities.

Goal #1 Enhance utilization of EMS resources by matching calls for service with appropriate resources through alternative protocols and transportation options by November 4, 2021.	
Objective 1.1. Develop appropriate protocols to determine service level for low acuity EMS calls that receive an alternative response by ~~July 1, 2019.~~January 1, 2022.	**Strategy 1.1.1.** Develop regional Standard Operating Procedures to address responses to low acuity calls by January 1, 2019. **Strategy 1.1.2.** Determine data elements required for process verification by January 30, 2019. **Strategy 1.1.3.** Presentation to the EMS Advisory Board about service levels for low acuity calls by February 7, 2019. **Strategy 1.1.4.** Analyze, interpret and report data elements to EMS Advisory Board and partner agencies biannually, beginning July 1, 2019. Strategy 1.15: EMS first response; prioritize and determine who responds to what calls by January 1, 2022.
Objective 1.2. Develop standardized procedures for eligible patients to receive funded alternative transportation to obtain medical care at an alternative destination by November 4, 2021.	**Strategy 1.2.1.** Continue research on alternative transportation options utilized across the United States, by October 31, 2020. **Strategy 1.2.2.** If applicable, develop processes to select eligible patients to receive funded alternative transport to facilities that accept patients who meet alternative destination criteria (e.g. urgent care, physician's office criteria), by August 31, 2021. **Strategy 1.2.3.** If applicable, obtain approval by the EMS Advisory Board for standardized procedures for patients to receive funded alternative transportation to obtain medical care, by November 4, 2021.

Goal #2	
~~Improve~~ Enhance pre-hospital EMS performance through use of technology, collaborative training and monitoring national trends by February 1, 2023.	
Objective 2.1. Implement regional usage of Automatic Vehicle Locator (AVL) technology to dispatch closest available unit by February 2023.	**Strategy 2.1.1.** Verify and revise the regional assessment to update existing AVL capabilities equipment and recognize other potential factors for dispatching the closest EMS responder by June 30, 2020. **Strategy 2.1.2.** Approval to utilize AVL to dispatch the closest available unit to EMS calls by individual Councils/Boards and EMS Advisory Board, by December 31, 2021. **Strategy 2.1.3.** Develop regional dispatching process that will utilize AVL technology to dispatch the closest unit to EMS calls for service by June 30, 2022. **Strategy 2.1.4.** Provide a report to EMS Advisory Board on implementation of AVL dispatching by February 2023.
Objective 2.2. Increase depth of resources able to respond to EMS calls for service in Washoe County by December 31st annually.	**Strategy 2.2.1.** Identification of operational opportunities by Washoe County EMS agencies through a review of mutual aid agreements (MAA) and/or memorandum of understanding (MOU) that include EMS services for Washoe County annually. **Strategy 2.2.2.** Deliver EMS Oversight Program agency MAAs/MOUs with partner agencies as necessary by December 31, annually. **Strategy 2.2.3.** Provide an annual update to EMS Advisory Board on all MAA/MOU process changes, additional agreements and any recommendations by February 28 annually. **Strategy 2.2.4.** Research and review full and unrestricted automatic response arrangement with EMS partners by January 1, 2022.

Goal #2 (continued) Improve pre-hospital EMS performance through use of technology, collaborative training, and monitoring national trends by February 1, 2023.	
Objective 2.3. Monitor national trends and plan for response, specifically active assailant, by December 31, 2020.	**Strategy 2.3.1.** Identify regional workgroup and integrate to monitor and identify current national trends relating to active assailant response by February 28, 2020. **Strategy 2.3.2.** Conduct assessment of regional response equipment (protective, medical and supportive) maintained by EMS and law enforcement agencies by March 31, 2020. **Strategy 2.3.3.** Participate in regional response plan reviews and updates, as requested biennially, or after a national or international incident, beginning April 2020.
Objective 2.4. Develop and conduct joint training opportunities where REMSA and Fire agencies can train together quarterly.	**Strategy 2.4.1.** Re-establish training committee (version 2.0) by January 1, 2022.

Goal #3

Improve communications between EMS partners through advances in communication technologies by June 30, 2023.

Objective 3.1. Enhance radio communication systems within Washoe County by June 30, 2023.	**Strategy 3.1.1.** REMSA will maintain interoperability between UHF and 800 MHz through a gateway connection between REMSA and Washoe County Regional Communication System (WCRCS) during the P25 upgrade system roll out. **Strategy 3.1.2.** Develop a comprehensive migration interoperability plan for WCRCS that outlines the enhancement of the radio communication system to include completion of upgrades, maintenance of REMSA gateway connection and identified equipment needs by December 31, 2019. **Strategy 3.1.3.** REMSA and regional public safety partners will develop a plan to upgrade their systems, coordinating with contractor and WCRCS, by June 30, 2020. **Strategy 3.1.4.** Agencies will purchase all necessary equipment and complete upgrade by June 30, 2023.
Objective 3.2. Establish a CAD-to-CAD interface between the three PSAPs and REMSA dispatch center by December 2022.	**Strategy 3.2.1.** Provide updates to EMS Advisory Board quarterly, beginning April 7, 2016. **Strategy 3.2.2.** As technology allows, City of Reno to implement configuration process regarding data exchange by December 2019. **Strategy 3.2.3.** Dispatch centers begin work on policies, processes, procedures and training on CAD-to-CAD by October 2020. **Strategy 3.2.4.** The additional PSAPs will implement CAD-to-CAD by December 2022.

Goal #4	
Design an enhanced EMS response system through improved continuity of care by January 31, 2021.	
Objective 4.1. Establish a regional process that continuously examines performance of the EMS system by August 2020.	**Strategy 4.1.1.** In accordance with the Pre-hospital Medical Advisory Committee (PMAC) approved CQI processes create a regional team, which would work to improve the system through examination of system performance by June 30, 2019. **Strategy 4.1.2.** The regional team will determine goals and identify performance measures, utilizing individual agency metrics, to be used for the regional continuous quality improvement program by November 30, 2019. **Strategy 4.1.3.** Acceptance by the EMS Advisory Board of the performance initiatives to be used during the review process by February 2020. **Strategy 4.1.4.** Present information from the quarterly meeting to the appropriate entity, beginning August 2020. **Strategy 4.1.5.** Review and evaluate performance measures and standards across all agencies that meet the needs of patient care.
Objective 4.2. Produce an annual report on EMS system performance that includes hospital outcome data by January 31, 2021.	**Strategy 4.2.1.** Collaborate with hospital partners on data available for submission to the EMS Oversight Program for cardiac, stroke and STEMI patients by February 7, 2020. **Strategy 4.2.2.** Pilot the annual report with hospital outcome data with one regional hospital by April 2020. **Strategy 4.2.3.** Draft for distribution an annual report with relevant regional hospital partner data included by June 30, 2020. **Strategy 4.2.4.** Review annual report with ePCR implementation and determine enhancements available for hospital outcome data, by October 31, 2020. **Strategy 4.2.5.** Draft for distribution an

	annual report with enhanced data included by January 31, 2021.

Goal #5	
Identify recurrent callers through partnership with community programs by November 2021.	
Objective 5.1. Develop a process to identify and report the recurrent callers in the community by December 31, 2019.	**Strategy 5.1.1.** Research, understand and work within the confines of HIPAA limitations for data sharing amongst first-responder and healthcare agencies by July 31, 2019. **Strategy 5.1.2.** Identify the community partner(s) to report recurrent caller information for follow-up by July 31, 2019. **Strategy 5.1.3.** Develop the process and/or variables for defining and identifying recurrent callers that are misusing the system by December 31, 2019.
Objective 5.2. Participate in community workgroup to provide recurrent callers with other resources, reducing the impact to the EMS system, by November 30, 2021.	**Strategy 5.2.1.** Obtain information regarding social, health and other community services that are available for recurrent callers, by March 31, 2019. **Strategy 5.2.2.** Contribute to Countywide committee/workgroup to review possible recurrent callers that could be eligible for resources/options other than 911, by December 31, 2020. **Strategy 5.2.3.** Determine data elements required for committee/workgroup program

	verification by June 30, 2021. **Strategy 5.2.4.** Analyze impact annually and report to the EMS Advisory Board and regional partners, beginning November 2021.

Goal #6 Continue collaborative models with regional EMS agencies, health organizations and public safety stakeholders.	
Objective 6.1. Coordinate and report on strategic planning objectives quarterly through June 2023.	**Strategy 6.1.1.** Maintain Gantt chart for the regional partners with the details of the goals by June 30, 2019. **Strategy 6.1.2.** Maintain structured feedback loops for the current initiatives of the strategic plan goals. **Strategy 6.1.3.** Provide progress reports to the EMS Advisory Board quarterly.
Objective 6.2. Promote the EMS Oversight Program through regional education of the strategic plan's goals and initiatives through June 2023.	**Strategy 6.2.1.** Maintain current structure of reporting to the signatories of the Inter-Local Agreement and ambulance franchisee Board for updates on the status of the regional EMS system annually, beginning June 2019.
Objective 6.3. Create a new EMS strategic plan for 2023-2028 by February 2023.	**Strategy 6.3.1.** Conduct a SWOT analysis with regional partners to determine current strengths, weaknesses, opportunities and threats by February 2022. **Strategy 6.3.2.** Create a committee to meet monthly develop the strategic plan by February 28, 2022. **Strategy 6.3.3.** Present EMS strategic plan to the EMS Advisory Board by February 2023.

Goal #7	
Legal protection for all agencies.	
Objective 7.1. Research legal protection for all agencies.to ensure staff understand their legal protection.	**Strategy 7.1.1.** Research and identify legal gaps and deficiencies. **Strategy 7.1.2.** Determine if a new bill needs to be sponsored with the addition of language that protects EMS responders by July 2022 for the next legislative session.

Strategic Plan Evaluation and Update

In an effort to ensure the successful implementation of the strategies and objectives of the EMS Advisory Board strategic plan, the EMS Oversight Program will develop a Gantt chart. The chart will be distributed to the regional partners upon approval of the strategic plan by the District Board of Health. The chart will be reviewed semi-annually to ensure all projected timelines remain achievable. Progress on the strategic planning strategies and objectives will be included in the "Program and Performance Data Update" staff report at the EMS Advisory Board meeting.

In 2022, the stakeholders should conduct a SWOT analysis and develop a Washoe County EMS Strategic Plan for 2023-2028. Upon completion, the EMS Oversight Program will bring a new 5-year strategic plan to the EMS Advisory Board for review, input and approval.

EMS Oversight Program, EMSProgram@washoecounty.us

WASHOE COUNTY
HEALTH DISTRICT
ENHANCING QUALITY OF LIFE

Washoe County EMS Strategic Plan
2019-2023

Public Health
Prevent. Promote. Protect.

The Washoe County Emergency Medical Services (EMS) Five-Year Strategic Plan was created with EMS Advisory Board support, and developed and/or reviewed by the following agencies:

Stakeholder Organizations and County Departments

Airport Authority Fire Department
Gerlach Volunteer Fire Department
North Lake Tahoe Fire Protection District
Pyramid Lake Fire Rescue
REMSA
Reno Dispatch
Reno Fire Department
Sparks Dispatch
Sparks Fire Department
Truckee Meadows Fire Protection District
Washoe County Communications
Washoe County EMS Oversight Program
Washoe County Shared Communication System

Approved By

District Board of Health
EMS Advisory Board

Distributed To

Incline Village Community Hospital
Northern Nevada Medical Center
Renown Regional Medical Center
Saint Mary's Regional Medical Center
Stakeholder Organizations and County Departments
Veterans Affairs Sierra Nevada Health Care System

Record of Change	Date	Agency
Initial Plan approved by DBOH	05/02/2019	WCHD
Revisions Goal #1, 2 and 4 Addition of Goal #7	4/28/2021 effective May 6, 2021	WCHD

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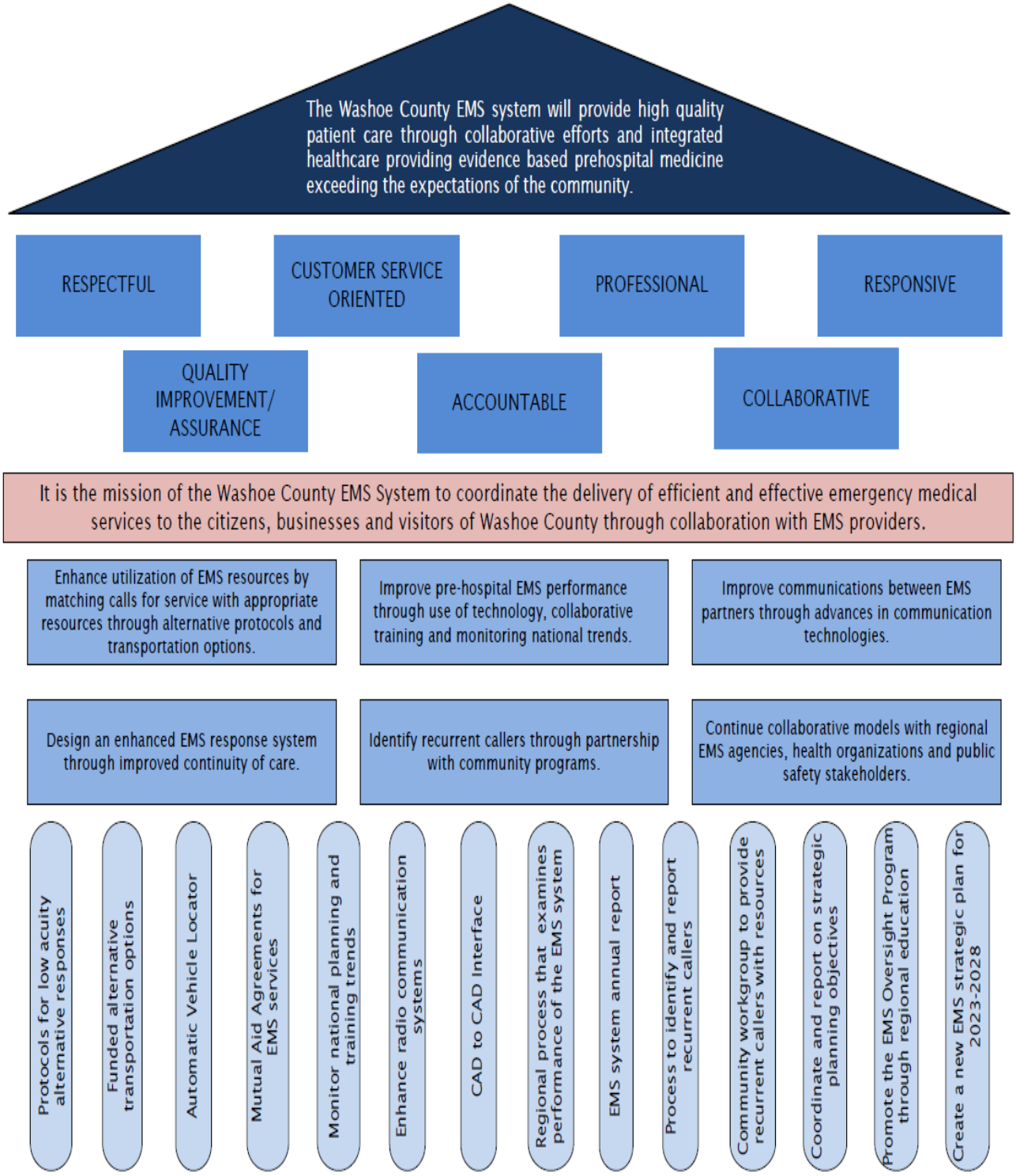
Strategic Plan at a Glance



Executive Summary

Washoe County is the second largest EMS region in the state of Nevada. It is 6,551 square miles in size and has approximately 433,000 residents. Washoe County is diverse geographically in its mountainous, urban, suburban, rural and wilderness/frontier terrain.

There are many EMS system stakeholder organizations including police and fire agencies, dispatch centers, healthcare organizations, and a contracted ambulance provider. The current ambulance contractor provides service to Washoe County; excluding the Gerlach Volunteer Fire Department service area and the North Lake Tahoe Fire Protection District.

The best EMS systems are based on collaborations among the diverse organizations that comprise the EMS system. When these organization's strengths are emphasized by system-wide integration and a culture of trust, the EMS system can more effectively capitalize on new opportunities and mitigate threats to the system. The planning process for Washoe County was supported by and involved EMS stakeholder leadership.

The initial Washoe County EMS Five-Year Strategic Plan was created between August 2015 and October 2016 to guide the future direction of the Washoe County EMS System. The assessment process evaluated the strengths and weaknesses, as well as the opportunities and threats facing the EMS system from national, regional and local influences. The information obtained through the analysis created goals to optimize the structure, processes, and outcomes of the EMS Strategic Plan, focusing on: 1) maintaining or improving clinical care and patient satisfaction; and 2) improving operational efficiency and collaboration across the region.

The strategic planning process was collaborative and included consensus building processes within the region and provided periodic updates to the EMS Advisory Board and District Board of Health. The results of this process were the EMS System's Mission, Vision, Values, Goals and Objectives. The first iteration of the EMS Strategic Plan was approved by the EMS Advisory Board on October 6, 2016, and approved by the District Board of Health on October 27, 2016.

In August 2018, the stakeholders reconvened to conduct an assessment of the current EMS Strategic Plan and discuss additional ideas for improving the EMS system. The stakeholders then met on a monthly basis to revise the plan and develop new goals, objectives and strategies. The Washoe County EMS Strategic Plan (2019-2023) was approved by the EMS Advisory Board on May 2, 2019, and approved by the District Board of Health on May 23, 2019.

The six goals within Washoe County EMS Strategic Plan are most relevant to the EMS system's ability to adapt to the changing healthcare environment, specifically focusing on pre-hospital care. Three goals within the strategic plan focus on improvements

related to clinical care and matching resources with patient needs. The remaining three goals focus on improving operational efficiencies within the county, both internally and externally through collaboration. These include proposed changes to existing processes that will positively impact the EMS System in its entirety.

Emergency Medical Services Mission, Vision and Values

Mission Statement

It is the mission of the Washoe County EMS System to coordinate the delivery of efficient and effective emergency medical services to the citizens, businesses and visitors of Washoe County through collaboration with EMS providers.

Vision

The Washoe County EMS system will provide high quality patient care through collaborative efforts and integrated healthcare, providing evidence-based prehospital medicine exceeding the expectations of the community.

Values of the Washoe County EMS System

- **Respectful:** To be open-minded of all stakeholder's views and ideas.
- **Customer Service Oriented:** To be responsive to our customers' needs, striving to provide high quality services in a respectful and courteous manner.
- **Accountable:** To be responsible for our behaviors, actions and decisions.
- **Professional:** To be dedicated in our service to the region and ourselves through adherence of recognized policies, rules and regulations. This includes maintaining the highest moral and ethical standards.
- **Responsive:** To rapidly identify emerging issues and respond appropriately.
- **Quality Improvement/Assurance:** To continuously evaluate operations, procedures and practices, to ensure the EMS system is meeting the needs of our patients and stakeholders.
- **Collaborative:** To work together toward delivering efficient and effective emergency medical services to the citizens, businesses, and visitors of Washoe County.

Emergency Medical Services Authority

Washoe County is comprised of three political jurisdictions, the City of Reno, City of Sparks and unincorporated Washoe County. In addition to the political bodies and their operational policy decisions, the State Division of Public and Behavioral Health also oversees EMS licensing and certifications within Washoe County.

There are multiple regulations that impact how the EMS system operates in Washoe County. At the State level, Nevada Revised Statute 450B is the overarching legislation that identifies minimum requirements for EMS services. In addition, the Nevada Administrative Code includes codified regulations for EMS personnel and agencies.

At the local government level, by the authority established through Nevada Revised Statute (NRS 439.370 et seq.) and the 1986 Interlocal Agreement (last amended 1993), the Washoe County Health District has jurisdiction over all public health matters in Reno, Sparks, and Washoe County through the policy-making Washoe County District Board of Health (DBOH). Through this authority, the DBOH established an exclusive ambulance franchise in August 1986 in Washoe County, excluding Gerlach and the North Lake Tahoe Fire Protection District. This Franchise was awarded to the Regional Emergency Medical Services Authority (REMSA) in May 1987. Through a regional process, the agreement was amended, restated and approved by the DBOH in May 2014. As part of the regional process, one recommendation for improvement of the delivery of patient care and outcomes and the delivery of emergency medical services, was the creation of a Regional Emergency Medical Oversight Program through an Inter Local Agreement (ILA).

The ILA was fully executed in August 2014, and is an agreement between five political jurisdictions; City of Sparks[1], City of Reno[2], Washoe County Board of County Commissioners[3], District Board of Health[4], and Truckee Meadows Board of Fire Commissioners[5]. The ILA establishes an Emergency Medical Services Advisory Board (EMS Advisory Board).

The EMS Advisory Board is comprised of the following members:

a. City Manager, Reno
b. City Manager, Sparks
c. County Manager, Washoe County
d. District Health Officer
e. Emergency Room Physician (DBOH Appointment)

[1] Referred to as “SPARKS” within the ILA
[2] Referred to as “RENO” within the ILA
[3] Referred to as “WASHOE” within the ILA
[4] Referred to as “DISTRICT” within the ILA
[5] Referred to as “FIRE” within the ILA

f. Hospital Continuous Quality Improvement (CQI) Representative (DBOH Appointment)

The purpose of the EMS Advisory Board is to review reports, evaluations and recommendations of the Regional Emergency Medical Services Oversight Program and to discuss issues related to regional emergency medical services. The function of the EMS Advisory Board is to thoroughly discuss changes within the regional EMS system prior to making recommendations to the respective Board(s), of the five signatories, and placing items on an agenda for possible approval and implementation.

Additionally, the EMS Advisory Board can make recommendations to the District Health Officer and/or the District Board of Health related to performance standards and attainment of those standards, medical protocols, communication, coordination, and other items of importance to a high performing Regional Emergency Medical Services System, and providing for concurrent review and approval by the Managers of the City of Reno, City of Sparks and Washoe County, striving to have a uniform system maintained for the region whenever possible.

The ILA also established the Regional Emergency Medical Services Oversight Program (Program). The purpose of the Program is to provide oversight of all emergency medical services provided by the EMS personnel within the signatory jurisdictions, as well as REMSA. Additionally, the Program is expected to achieve the duties outlined within the ILA. The program consists of a Program Manager, Program Coordinator and Statistician. The eight duties specifically detailed within the ILA are:

1. Monitor the response and performance of each agency providing Emergency Medical Services and provide recommendations to each agency for the maintenance, improvement, and long-range success of the Emergency Medical Services;

2. Coordinate and integrate provision of Medical Direction for RENO, SPARKS, WASHOE, FIRE and REMSA providing emergency medical services;

3. Recommend regional standards and protocols for RENO, SPARKS, WASHOE, FIRE and REMSA;

4. Measure performance, analysis of system characteristics, data and outcomes of the Emergency Medical Services and provide performance measurement and recommendations to RENO, SPARKS, WASHOE, FIRE and REMSA;

5. Collaborate with REMSA, RENO, SPARKS, WASHOE, FIRE and DISTRICT on analysis of EMS response data and formulation of recommendations for modifications or changes to the Regional Emergency Medical Response Map;

6. Identify sub-regions as may be requested by RENO, SPARKS, WASHOE, FIRE or the DISTRICT to be analyzed and evaluated for potential recommendations

regarding EMS response services in order to optimize the performance of system resources;

7. Provide a written Annual Report on the State of Emergency Medical Services to RENO, SPARKS, WASHOE, FIRE and REMSA, covering the preceding fiscal year (July 1st to June 30th), containing measured performance in each agency including both ground and rotary wing air ambulance services provided by REMSA in Washoe County; the compliance with performance measures established by the District Emergency Medical Services Oversight Program in each agency, and audited financial statements and an annual compliance report by REMSA as required in the exclusive Emergency Medical Ambulance Service Franchise;

8. Maintain a Five-Year Strategic Plan to ensure the continuous improvement of Emergency Medical Services in the area of standardized equipment, procedures, technology training, and capital investments to ensure that proper future operations continue to perform, including Dispatching Systems, Automated Vehicle Locations Systems, Records Management Systems, Statistical Analysis, Regional Medical Supply and Equipment, and other matters related to strategic and ongoing Emergency Medical Services and approved by RENO, SPARKS, WASHOE and FIRE.

The ILA also outlines the duties of the signatories, which support the expectation that the strategic planning objectives will be achieved. Those duties are:

a. Providing information, records, and data on Emergency Medical Services dispatch and response from their respective Public Safety Answering Points (PSAPs) and Fire Services, for review, study and evaluation by DISTRICT.

b. Participating in working groups established by DISTRICT for coordination, review, evaluation, and continuous improvement of Emergency Medical Services.

c. Participating in establishing and utilizing a Computer Aided Dispatch (CAD) – to – CAD two-way interface with REMSA, which provides for the instantaneous and simultaneous transmission of call-related information for unit status updates;

d. Working cooperatively with DISTRICT to provide input to the development of the Five Year Strategic Plan and to ensure consistent two-way communication and coordination of the Emergency Medical Services System between RENO, SPARKS, WASHOE, FIRE, and REMSA in the future, as technologies, equipment, systems, and protocols evolve;

e. Participating on the Regional Emergency Medical Services Advisory Board;

f. Striving to implement recommendations of DISTRICT, or submitting those recommendations to their governing bodies for consideration and possible

action, if determined necessary and appropriate by the respective managers; and

g. Submitting recommendations regarding the Emergency Medical Services System to DISTRICT for implementation, or for consideration and possible action by the District Board of Health, if determined necessary and appropriate by the District Health Officer.

Strategic Plan Process, Objectives and Implementation

Washoe County has a two tiered system response to emergency medical calls. When an individual dials 9-1-1, the call routes through one of three Public Safety Answering Points (PSAPs): Reno, Sparks or Washoe County. Jurisdictional fire departments are dispatched to a medical call by PSAP personnel. If appropriate, the caller is then transferred to REMSA's communications center for Emergency Medical Dispatch (EMD). EMD allows REMSA dispatch to prioritize the caller's chief complaint, to dispatch appropriate resources, and provide pre-arrival instruction to the caller.

There are several agencies and organizations involved in the response to an emergency medical call. The EMS Advisory Board recognizes the need to provide optimal emergency care under the varied conditions throughout Washoe County. Therefore, the EMS Advisory Board strives to influence the coordination of all stakeholders, as it develops and sustains a system to ensure appropriate and adequate emergency medical services. With this in mind, the Five-Year EMS strategic plan was constructed.

To ensure the objectives of the entire region were considered, the EMS Working Group convened and participated in a SWOT analysis. The SWOT analysis looks at the strengths (internal), weaknesses (internal), opportunities (external), and threats (external) for the regional EMS system. Representatives from both dispatch and operations for the EMS agencies provided input and feedback on the development of the strategic plan. The EMS Oversight Program met frequently with the representatives to review the goals, objectives, and strategies, while discussing realistic timelines for implementation. These meetings were an integral part of the process to ensure the regional planning goals mirrored the jurisdictional strategic planning goals of the individual EMS agencies. This culminated in the development of a regional strategic plan for the EMS Advisory Board's consideration.

The Washoe County EMS strategic plan includes goals, objectives and strategies. The six goals of the strategic plan are broad statements, to identify future achievements of the Washoe County EMS system. Each goal includes objectives designed to measure progress towards the attainment of the goal. The strategies for each goal describe a major approach or method for attaining the objectives.

Additionally, the strategic plan outlines the method to achieve effective and efficient solutions to system-wide challenges. The strategic plan calls for maximum collaboration, to achieve the objectives and strategies within the five year planning period (2019-2023). Through continued collaboration, the strategic plan can be updated to capitalize on new opportunities or to mitigate threats to the system. This

process will ensure key stakeholders remain involved in regional emergency medical services planning activities.

Goal #1 Enhance utilization of EMS resources by matching calls for service with appropriate resources through alternative protocols and transportation options by November 4, 2021.	
Objective 1.1. Develop appropriate protocols to determine service level for low acuity EMS calls that receive an alternative response by January 1, 2022.	**Strategy 1.1.1.** Develop regional Standard Operating Procedures to address responses to low acuity calls by January 1, 2019. **Strategy 1.1.2.** Determine data elements required for process verification by January 30, 2019. **Strategy 1.1.3.** Presentation to the EMS Advisory Board about service levels for low acuity calls by February 7, 2019. **Strategy 1.1.4.** Analyze, interpret and report data elements to EMS Advisory Board and partner agencies biannually, beginning July 1, 2019. Strategy 1.15: EMS first response; prioritize and determine who responds to what calls by January 1, 2022.
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Goal #2 Enhance pre-hospital EMS performance through use of technology, collaborative training and monitoring national trends by February 1, 2023.	
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	annual report with enhanced data included by January 31, 2021.

Goal #5 Identify recurrent callers through partnership with community programs by November 2021.	
Objective 5.1. Develop a process to identify and report the recurrent callers in the community by December 31, 2019.	**Strategy 5.1.1.** Research, understand and work within the confines of HIPAA limitations for data sharing amongst first-responder and healthcare agencies by July 31, 2019. **Strategy 5.1.2.** Identify the community partner(s) to report recurrent caller information for follow-up by July 31, 2019. **Strategy 5.1.3.** Develop the process and/or variables for defining and identifying recurrent callers that are misusing the system by December 31, 2019.
Objective 5.2. Participate in community workgroup to provide recurrent callers with other resources, reducing the impact to the EMS system, by November 30, 2021.	**Strategy 5.2.1.** Obtain information regarding social, health and other community services that are available for recurrent callers, by March 31, 2019. **Strategy 5.2.2.** Contribute to Countywide committee/workgroup to review possible recurrent callers that could be eligible for resources/options other than 911, by December 31, 2020. **Strategy 5.2.3.** Determine data elements required for committee/workgroup program

	verification by June 30, 2021. **Strategy 5.2.4.** Analyze impact annually and report to the EMS Advisory Board and regional partners, beginning November 2021.

Goal #6 Continue collaborative models with regional EMS agencies, health organizations and public safety stakeholders.	
Objective 6.1. Coordinate and report on strategic planning objectives quarterly through June 2023.	**Strategy 6.1.1.** Maintain Gantt chart for the regional partners with the details of the goals by June 30, 2019. **Strategy 6.1.2.** Maintain structured feedback loops for the current initiatives of the strategic plan goals. **Strategy 6.1.3.** Provide progress reports to the EMS Advisory Board quarterly.
Objective 6.2. Promote the EMS Oversight Program through regional education of the strategic plan's goals and initiatives through June 2023.	**Strategy 6.2.1.** Maintain current structure of reporting to the signatories of the Inter-Local Agreement and ambulance franchisee Board for updates on the status of the regional EMS system annually, beginning June 2019.
Objective 6.3. Create a new EMS strategic plan for 2023-2028 by February 2023.	**Strategy 6.3.1.** Conduct a SWOT analysis with regional partners to determine current strengths, weaknesses, opportunities and threats by February 2022. **Strategy 6.3.2.** Create a committee to meet monthly develop the strategic plan by February 28, 2022. **Strategy 6.3.3.** Present EMS strategic plan to the EMS Advisory Board by February 2023.

Goal #7	
Legal protection for all agencies.	
Objective 7.1. Research legal protection for all agencies.to ensure staff understand their legal protection.	**Strategy 7.1.1.** Research and identify legal gaps and deficiencies. **Strategy 7.1.2**. Determine if a new bill needs to be sponsored with the addition of language that protects EMS responders by July 2022 for the next legislative session.

Strategic Plan Evaluation and Update

In an effort to ensure the successful implementation of the strategies and objectives of the EMS Advisory Board strategic plan, the EMS Oversight Program will develop a Gantt chart. The chart will be distributed to the regional partners upon approval of the strategic plan by the District Board of Health. The chart will be reviewed semi-annually to ensure all projected timelines remain achievable. Progress on the strategic planning strategies and objectives will be included in the "Program and Performance Data Update" staff report at the EMS Advisory Board meeting.

In 2022, the stakeholders should conduct a SWOT analysis and develop a Washoe County EMS Strategic Plan for 2023-2028. Upon completion, the EMS Oversight Program will bring a new 5-year strategic plan to the EMS Advisory Board for review, input and approval.

EMS Oversight Program, EMSProgram@washoecounty.us

WASHOE COUNTY
HEALTH DISTRICT
ENHANCING QUALITY OF LIFE

STAFF REPORT
EMERGENCY MEDICAL SERVICES ADVISORY BOARD
MEETING DATE: May 6, 2021

TO: EMS Advisory Board Members

FROM: Anastasia Gunawan, EMS Statistician
agunawan@washoecounty.us

SUBJECT: Presentation and possible approval of the 2019 Washoe County Trauma Data Report.

SUMMARY

The EMS Oversight Program Statistician is presenting the board with the 2019 Washoe County Trauma Data Report.

PREVIOUS ACTION

During the February 2020 EMSAB meeting, the Board approved the publication of the 2018 Trauma Data Report.

BACKGROUND

The Nevada Division of Public and Behavioral Health released the Nevada Trauma Registry data for Washoe County, the data are based on a national set of guidelines for reporting variables. After evaluating the data, the EMS Statistician produced a Washoe County-specific trauma report which includes assessment of trauma and injuries based on demographic characteristics, spatial epidemiology of injury by zip-code, severity of injury, place of injury, and specific mechanism causing the injury. The analyses include were modeled from the 2016 National Trauma Data Bank Annual Report, which continues to be the most recent national report for this type of data.

The 2019 Washoe County Trauma Data Report augments the Washoe County Health District strategic priority to promote impactful partnership with stakeholders in the community, and mission to protect and enhance the well being and quality of life for all in Washoe County.

FISCAL IMPACT

There is no fiscal impact to the Board on this agenda item.

RECOMMENDATION

Staff recommends the Board approve the presentation and distribution of the 2019 Washoe County Trauma Data Report.

POSSIBLE MOTION

Should the Board agree with staff's recommendation a possible motion would be:

"Move to approve the 2019 Washoe County Trauma Data Report."

Attachment

2019 Washoe County Trauma Data Report_FINAL

WASHOE COUNTY
HEALTH DISTRICT
ENHANCING QUALITY OF LIFE

Washoe County 2019 Trauma Data Report

Published March 2021

Public Health
Prevent. Promote. Protect.

Introduction

The purpose of this report is to highlight prevalence, morbidity, and mortality associated with patterns of fatal and non-fatal injuries due to trauma, as defined by The American College of Surgeons (ACS) in Washoe County. Assessment of trauma and injuries presented in this report utilizes the Nevada Trauma Registry (NTR) standardized dataset established under NRS 450B. 238, and NAC 450B. 768. As of date, NTR data are collected from all licensed acute care hospitals and trauma centers in Nevada. In previous years, the Washoe County Trauma Data report is available for the public, and stakeholders during the end of calendar year. However, this publication was delayed due to the county's ongoing COVID-19 mitigation efforts.

This report is divided into section(s) with background on patient trauma care in Washoe County with accompanying information on: a) demographic distribution of injuries in Washoe County; b) specific mechanisms causing the injury; c) severity of the injury; d) place of the injury; e) spatial epidemiology of injury by zip code; and f) length of hospital stay in ICU. These section(s) were curated to augment the Washoe County Health District strategic priority to promote impactful partnership with stakeholders in the community and mission to protect and enhance the well-being and quality of life for all in Washoe County.

Traumatic Injury in the United States

According to the Centers for Disease Control and Prevention, injuries are the leading cause of death among persons 1 to 45 years of age, accounting for 59% of deaths in that age group in the United States (Appendix A). In addition to those that survive, millions of people still suffer from injuries each year[1]. Approximately $671 billion of total lifetime medical and work loss costs due to injuries in the United States are associated with fatal ($214 billion) and non-fatal injuries ($457 billion).

10 Leading Causes of Death, United States
2018, Both Sexes, All Ages, All Races

	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
1	Congenital Anomalies 4,473	Unintentional Injury 1,226	Unintentional Injury 734	Unintentional Injury 692	Unintentional Injury 12,044	Unintentional Injury 24,614	Unintentional Injury 22,667	Malignant Neoplasms 37,301	Malignant Neoplasms 113,947	Heart Disease 526,509	Heart Disease 655,381
2	Short Gestation 3,679	Congenital Anomalies 384	Malignant Neoplasms 393	Suicide 596	Suicide 6,211	Suicide 8,020	Malignant Neoplasms 10,640	Heart Disease 32,220	Heart Disease 81,042	Malignant Neoplasms 431,102	Malignant Neoplasms 599,274
3	Maternal Pregnancy Comp. 1,358	Homicide 353	Congenital Anomalies 201	Malignant Neoplasms 450	Homicide 4,607	Homicide 5,234	Heart Disease 10,532	Unintentional Injury 23,056	Unintentional Injury 23,693	Chronic Low. Respiratory Disease 135,560	Unintentional Injury 167,127
4	Sids 1,334	Malignant Neoplasms 326	Homicide 121	Congenital Anomalies 172	Malignant Neoplasms 1,371	Malignant Neoplasms 3,684	Suicide 7,521	Suicide 8,345	Chronic Low. Respiratory Disease 18,804	Cerebrovascular 127,244	Chronic Low. Respiratory Disease 159,486
5	Unintentional Injury 1,168	Influenza & Pneumonia 122	Influenza & Pneumonia 71	Homicide 168	Heart Disease 905	Heart Disease 3,561	Homicide 3,304	Liver Disease 8,157	Diabetes Mellitus 14,941	Alzheimer's Disease 120,658	Cerebrovascular 147,810
6	Placenta Cord Membranes 724	Heart Disease 115	Chronic Low. Respiratory Disease	Heart Disease 101	Congenital Anomalies 354	Liver Disease 1,008	Liver Disease 3,108	Diabetes Mellitus 6,414	Liver Disease 13,945	Diabetes Mellitus 60,182	Alzheimer's Disease 122,019
7	Bacterial Sepsis 579	Perinatal Period 62	Heart Disease 68	Chronic Low. Respiratory Disease 64	Diabetes Mellitus 246	Diabetes Mellitus 837	Diabetes Mellitus 2,282	Cerebrovascular 5,128	Cerebrovascular 12,789	Unintentional Injury 57,213	Diabetes Mellitus 84,946
8	Circulatory System Disease 428	Septicemia 54	Cerebrovascular	Cerebrovascular 54	Influenza & Pneumonia 200	Cerebrovascular 567	Cerebrovascular 1,704	Chronic Low. Respiratory Disease 3,807	Suicide 8,540	Influenza & Pneumonia 48,888	Influenza & Pneumonia 59,120
9	Respiratory Distress 390	Chronic Low. Respiratory Disease 50	Septicemia 34	Influenza & Pneumonia 51	Chronic Low. Respiratory Disease 165	Hiv 482	Influenza & Pneumonia 956	Septicemia 2,380	Septicemia 5,956	Nephritis 42,232	Nephritis 51,386
10	Neonatal Hemorrhage 375	Cerebrovascular 43	Benign Neoplasms 19**	Benign Neoplasms 30	Complicated Pregnancy 151	Influenza & Pneumonia 457	Septicemia 829	Influenza & Pneumonia 2,339	Influenza & Pneumonia 5,858	Parkinson's Disease 32,988	Suicide 48,344

Appendix A. Ten Leading Causes of Death, United States. Source: WISQARS Centers for Disease Control and Prevention

Injuries are categorized into three major types, 1) unintentional; 2) intentional; and 3) undetermined injuries. Falls and transportation-related injuries make up the largest proportion of traumatic unintentional injuries and associated emergency department visitation costs in the region and the United States. Meanwhile, homicide and suicide accounts for the majority of traumatic intentional injuries. Reducing the risk of unintentional injury involves basic preventive mechanisms, such as implementing robust transportation safety and primary seat belt laws[1]. State of Nevada under NRS 484D.495 enforces seat belt use under a non-moving, secondary violation. Under current statutes, including in Washoe County, seat belt use violation do not affect driver's license points or suspension. Effective transportation safety and restraint use policies have been shown to significantly reduced the risk of serious injuries and deaths by half. Other methods of risk reduction to address the likelihood of high impact falls among seniors include the promotion of evidence-based falls prevention programs[2] endorsed by the National Council on Aging in regional areas with high percentage of adults residents aged 65 years and older.

[1] Transportation Safety Centers for Disease Control and Prevention. Source: https://www.cdc.gov/transportationsafety/seatbelts/states.html
[2] Falls Prevention and Programs National Council on Aging. Source: https://www.ncoa.org/resources/falls-prevention-programs-saving-lives-saving-money-infographic-3/

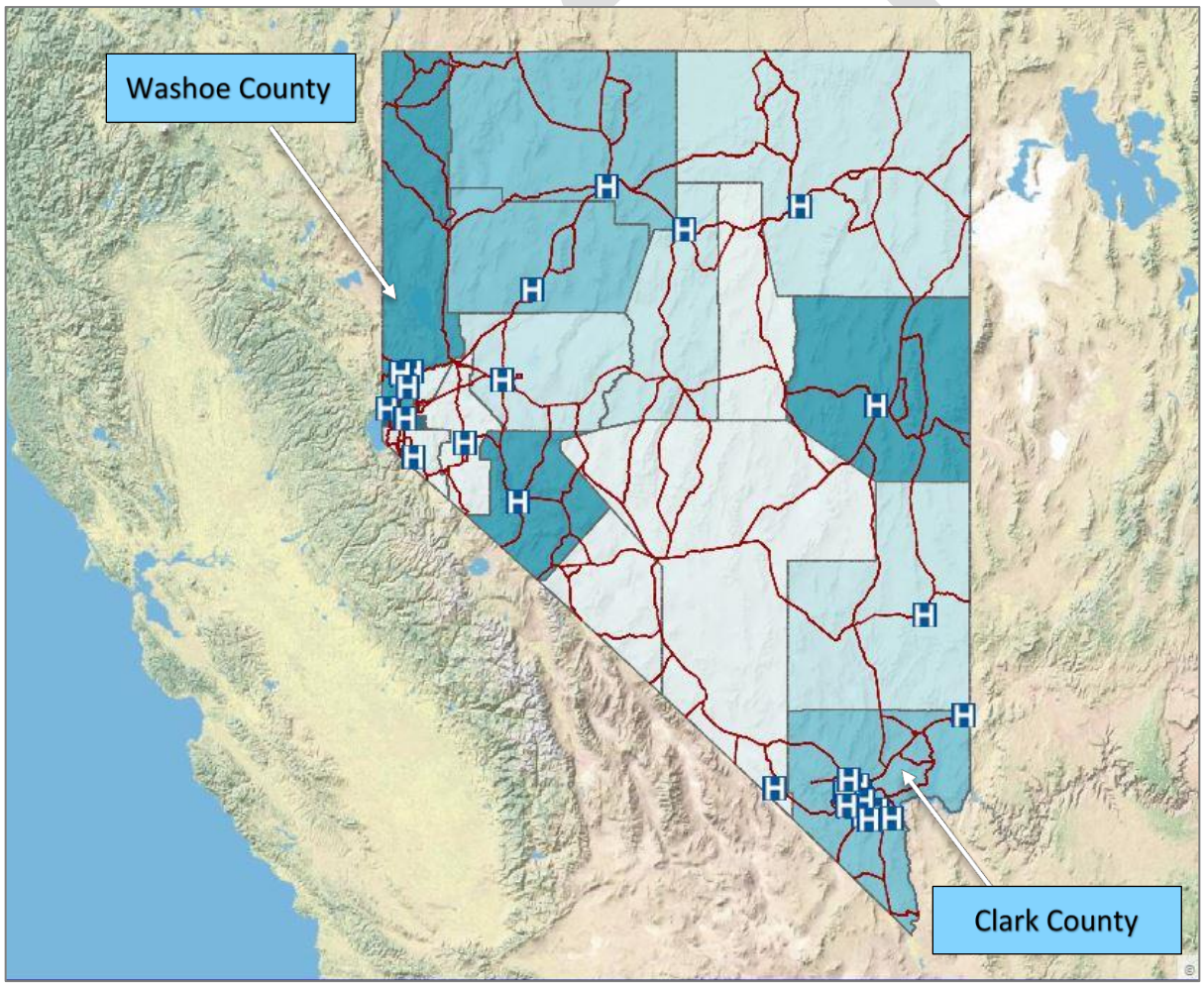
Trauma Centers in the United States

Designation and verification of trauma centers are two separate independent activities directed to assist hospitals to enhance and optimize trauma care. The designation of trauma facilities in the U.S. is a geopolitical process by which empowered entities, government or otherwise, are authorized to designate[3]. Although the ACS does not designate trauma centers, the ACS conducts consultation and verification activities through ACS Verification, Review, and Consultation (VRC) programs. Designated trauma centers may receive certification through voluntary review of essential elements such as trained and capable personnel, adequate facilities, and performance improvement to confirm resource capability readiness as a Trauma Center[4]. Trauma Centers are classified into various Levels (Level I, II, III, IV, or V), based on the kinds of resources available in the facility and the number of patients admitted annually[5].

[3] American College of Surgeons. Verification, Review and Consultation (VRC) Program. Source: https://www.facs.org/quality-programs/trauma/tqp/center-programs/vrc/about
[4] American College of Surgeons. Resource for Optimal Care of the Injured Patient 6th edition. Source: https://www.facs.org/Quality-Programs/Trauma/TQP/center-programs/VRC/resources
[5] Trauma Center Levels and Capabilities. Washoe County 2017 Trauma Data Report. Source: https://www.washoecounty.us/health/files/ephp/emergency-medical-services/

Trauma Centers in Nevada

Nevada Trauma Centers are located in the most populated counties in Nevada: Clark County and Washoe County (Appendix B). Level I Adult Trauma Center and Level II Pediatric Trauma Center is located in Las Vegas, Clark County. Renown Regional Medical Center (RRMC) is a Level II Trauma center in Reno, Washoe County (Table 1). Trauma Level III Center is located throughout Las Vegas, Clark County. Patients with traumatic injury may arrive at a facility which is not a designated Trauma Center. Medical personnel make an informed decision as to whether a patient should be transferred to a designated Trauma Center in the region[6].

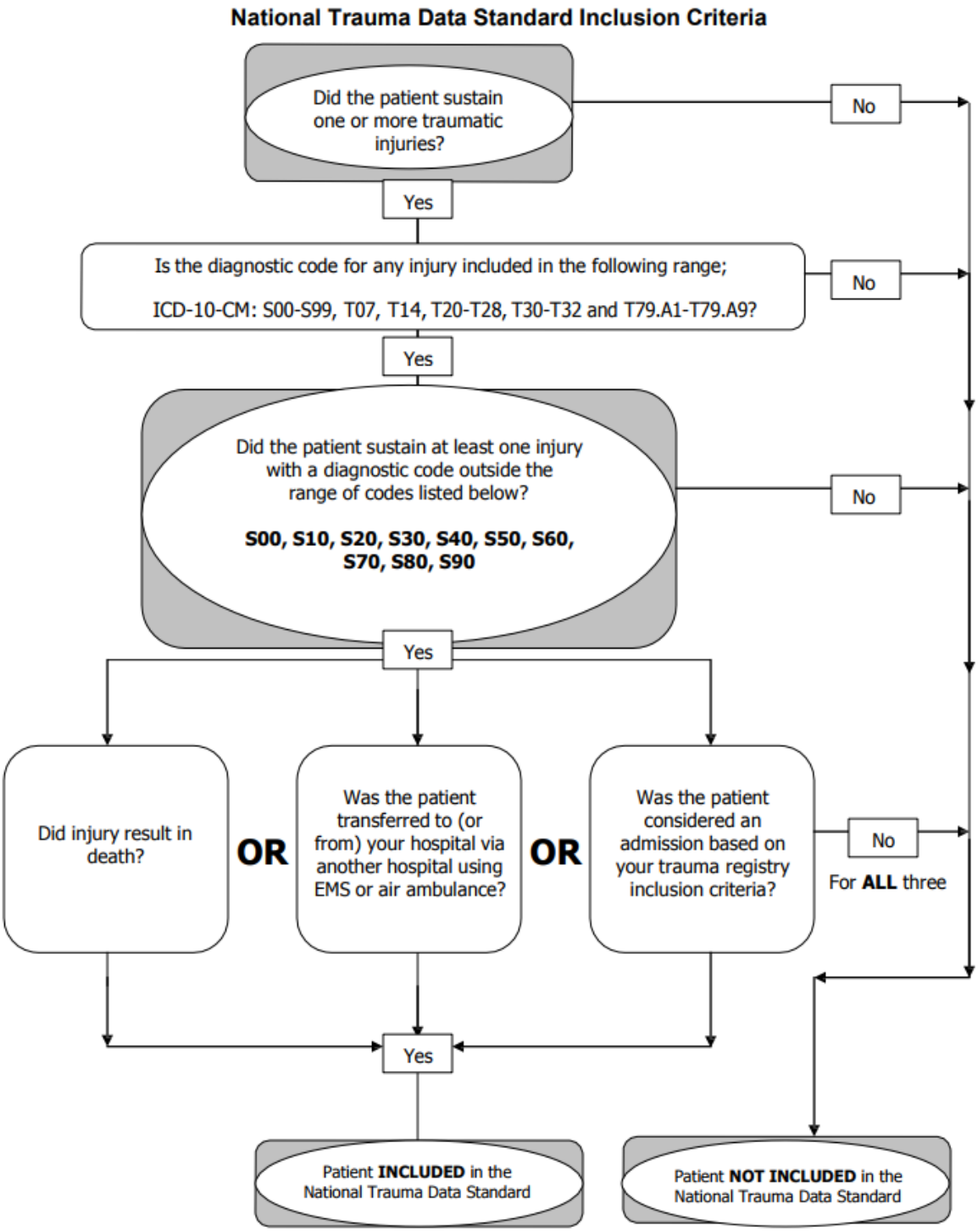


Appendix B. Licensed Community Hospitals in Nevada. Source: https://med.unr.edu/statewide/instant-atlas/county-data-map

[6] Trauma Center Levels and Capabilities. Washoe County 2017 Trauma Data Report. Source: https://www.washoecounty.us/health/files/ephp/emergency-medical-services/

Trauma Reporting in Washoe County

The National Trauma Data Bank (NTDB) is the largest combined trauma registry in the United States. Healthcare facilities across the nation report patient level trauma information to the NTDB that range from basic demographics to quantitative, and qualitative data describing the nature of the injury, level of care received, and the outcome of the injury. The National Trauma Data Standard defines a standardized set of data variables to capture and report to Nevada Trauma Registry (Appendix C). A facility does not have to be designated or a verified Trauma Center to report data on a patient experiencing traumatic injury to the Nevada Trauma Registry. Patient level trauma data is reported to Nevada Trauma Registry (NTR) by five healthcare facilities in Washoe County: Incline Village Community Hospital, Northern Nevada Medical Center, Renown Regional Medical Center, Renown South Meadows Medical Center, and Saint Mary's Regional Medical Center. Reporting facilities also admit trauma patients who sustained injuries in location(s) outside Washoe County. The NTR does capture patient level information for trauma patients transported from Northern California region(s) to healthcare facilities in Washoe County. Emergency Room (ER) at McCarran Northwest, an extension of Northern Nevada Medical Center, in Reno has been added to the NTR system. Once training and outreach for onboarding has been completed, patient level information from ER at McCarran Northwest will be reported into NTR. Appendix B illustrates inclusion criteria that a patient must meet to be reported to the NTR.



Appendix C. National Trauma Data Standard Data Dictionary 2019 Admissions. Source: https://www.facs.org/quality-programs/trauma/tqp/center-programs/ntdb/ntds

Traumatic Injuries in Washoe County

Table 3 depicts the trend of trauma cases reported in Washoe County to the Nevada Trauma Registry from 2017 to 2019. The number of patients with an injury classified as traumatic that were reported by Washoe County facilities increased by 15.7% in 2018 (n=2,130) compared to 2017 (n=1,841) and decreased by 30% in 2019 (n=1,501) compared to 2018. Nevada Trauma Registry does not mandate compliance tracking by facilities pursuant to NRS 450B.238, and NAC 450B.768. Facilities that do report trauma cases to the registry are encouraged by the state to conduct internal data check independently.

Table 3: Number & Rate of Trauma Incidents by Year, Washoe County, 2017-2019

Year	Number of Incidents	Rate per 100,000 population
2017	1,841	407.14
2018	2,130	463.99
2019	1,501	320.19

Table 3b: Race Specific Rate of Trauma Incidents, Washoe County, 2019

Year	Number (%) of Incidents	Race Specific Rate per 100,000 population [a]
White	1,243 (82.8%)	421.38
Black	26 (1.7%)	216.14
American Indian	29 (1.9%)	395.36
Asian/Pacific Islander	45 (3.0%)	134.53
Hispanic	118 (7.9%)	97.53

[a] Source population for race-specific race from ASHRO Estimates and Projections Summary 2000 to 2038.

Demographic Characteristics

Table 4 depicts demographic characteristics of trauma patients by age, and gender. In 2019, nearly eight out of ten (82.8%) trauma patients were white, non-Hispanic. Hispanics of any race accounted for 7.9%, while 3% were Asian/Pacific Islander, non-Hispanic, 2% were African American, non-Hispanic, 2% were American Indian, non-Hispanic, 2% were of an unknown race/ethnicity, and 1% were an "other" race (Figure 1). Race-specific rate calculated for trauma reveal trauma incidents affecting American Indian population disproportionately compared to other races in Washoe County (Table 3b). There's 3% to 5% increase in the percentage of trauma reported for patients aged 65 years and older from 2017 to 2019 (Figure 2).

Table 4. Number & Percent of Patients by Sex & Age Group, Washoe County, 2019

Age Group	All Incidents		Male		Female		Unknown	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0-4 years	16	1%	7	1%	9	1%	0	-
5-9 years	11	1%	6	1%	5	1%	0	-
10-14 years	28	2%	19	2%	9	1%	0	-
15-19 years	59	4%	46	5%	13	2%	0	-
20-24 years	72	5%	49	6%	23	4%	0	-
25-34 years	170	11%	132	15%	38	6%	0	-
35-44 years	133	9%	93	11%	39	6%	1	33%
45-54 years	139	9%	95	11%	44	7%	0	-
55-64 years	185	12%	117	14%	68	11%	0	-
65-74 years	234	16%	119	14%	114	18%	1	33%
75-84 years	251	17%	115	13%	135	21%	1	
85+ years	203	14%	63	7%	140	22%	0	33%
Total	**1,501**	**100%**	**861**	**100%**	**637**	**100%**	**3**	**100%**

Figure 1. Percent of Trauma Patients by Race/Ethnicity, Washoe County, 2019

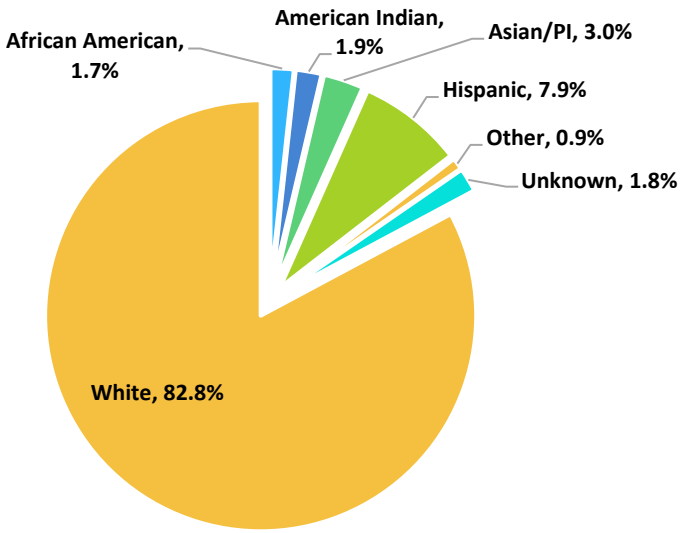
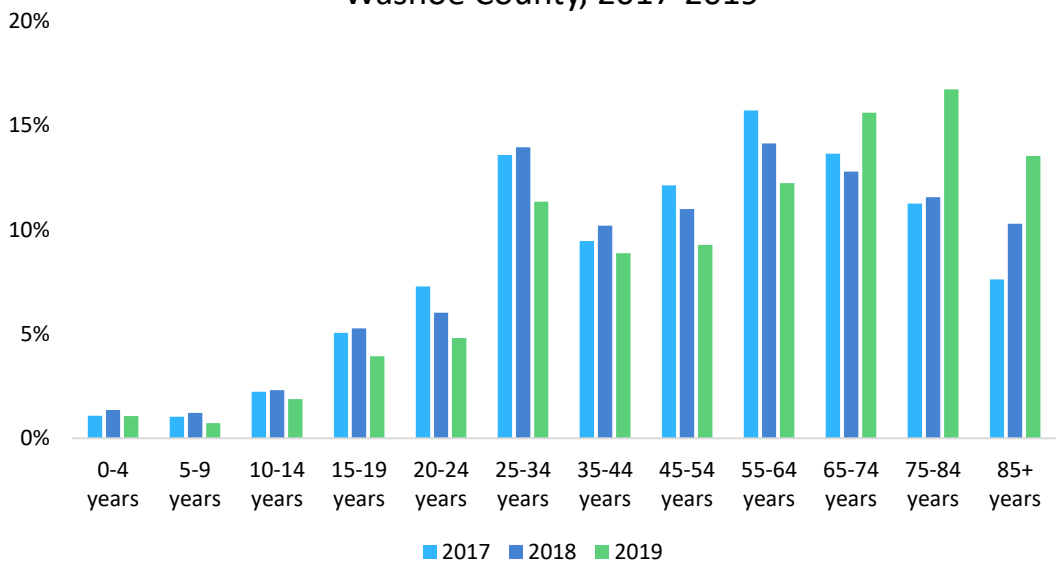


Figure 2. Percent of Trauma Patients by Age Group, Washoe County, 2017-2019



Approximately two-thirds (59%) of all trauma cases reported in 2019 were among those aged 55 and older. Nearly one in six (15%) of male trauma patients were between the ages of 25 to 34 years of age (Table 5). Female aged 75 years and older represented nearly half (43%) of female trauma patients reported to NTR in Washoe County. Overall case fatality rate for trauma patients in Washoe County in 2019 was 7.53 per 100 trauma patients. The highest case fatality rate (CFR) reported among those aged 20-24 years old (11.1 per 100), followed by 85 years and older trauma patients (9.36 per 100).

Table 5: Rate of Fatality Among Trauma Patients by Age Group, Washoe County, 2019

Age Group	Number of Incidents	Percent of Incidents	Number of Deaths	Case Fatality Rate[a]
0-4 years	16	1%	1	6.25
5-9 years	11	1%	1	9.09
10-14 years	28	2%	2	7.14
15-19 years	59	4%	4	6.78
20-24 years	72	5%	8	11.11
25-34 years	170	11%	7	4.12
35-44 years	133	9%	11	8.27
45-54 years	139	9%	6	4.32
55-64 years	185	12%	17	9.19
65-74 years	234	16%	18	7.69
75-84 years	251	17%	19	7.57
85+ years	203	14%	19	9.36
Total	**1,501**	**100%**	**113**	**7.53**

[a] Rate per 100 trauma patients

Injury Characteristics

Intent of Injury

Unintentional injuries accounted for 90.6% of trauma, with reported case fatality rate of 6.5 per 100 trauma patients. Intentional injury accounted for 9.3% of overall trauma reported, with case fatality rate of 17.1 per 100 trauma patients. The intent of injury reported over the span of three years, 2017 – 2019 has remained relative stable, with 3% increase in unintentional injuries in 2019 compared to the previous years (Figure 3).

Table 6: Rate of Fatality Among Trauma Patients by Intent, Washoe County, 2019

Intent of Injury	Number	Percent of Total	Deaths	Case Fatality Rate [a]
Unintentional	1,361	90.6%	89	6.5
Intentional	140	9.3%	24	17.1
Undetermined	1	0.1%	0	-
Total	**1,510**	**100%**	**113**	**7.5**

[a] Rate per 100 trauma patients

Mechanism of Injury

Mechanism of injury (MOI) was determined by the ICD-10-CM primary external cause code (e-code) reported as the main cause of the injury. Almost half of unintentional traumatic injuries in Washoe County (48.2%) were due to falls, the majority of which occurred in private residences in zip code areas 89511, 89521, and 89434 (Figure 5). The second highest contributing factor to unintentional traumatic injuries in Washoe County involved occupants in transportation or motor vehicles collisions (23%). In 2019, all patients sustaining intentional traumatic injuries due to asphyxiation, drowning, and firearm/handgun discharge did not survive (Table 7). The second highest contributing factor to death due to intentional traumatic injuries is self-harm by sharp objects/other means (Table 7). Case fatalities are 2-3 times higher among patients with intentional injuries (17.1 per 100 trauma patients) compared to unintentional injuries (6.5 per 100 trauma patients).

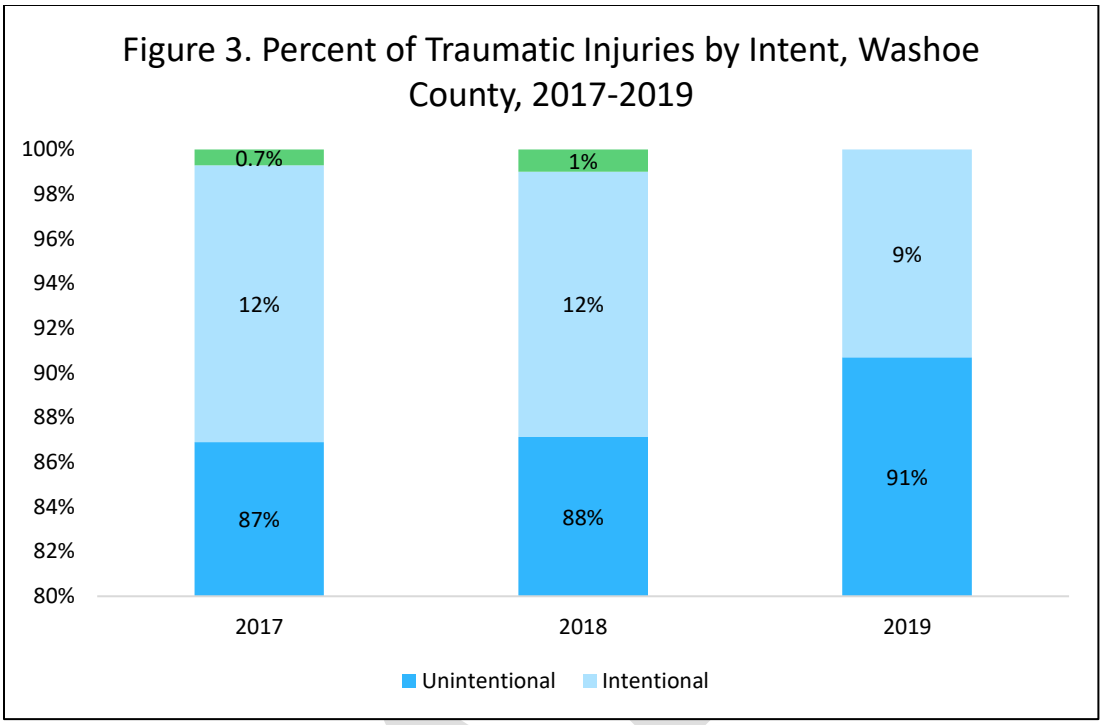


Table 7: Rate of Fatality Among Trauma Patient Due to Intentional Injuries, Washoe County, 2019

Mechanism of Injury (MOI)	Number	Percent of Total	Deaths	Case Fatality Rate [a]
Asphyxiation	4	2.9	4	100
Intentional (combined)				
Drowning and submersion	1	0.7	1	100
Firearm and gun discharge	3	2.1	3	100
Handgun discharge	10	7.1	6	60
Self-harm by sharp object	10	7.1	1	10
Self-harm by other means	1	0.7	0	-
Assault (combined)				
Firearm and gun discharge	6	4.3	2	33
Handgun discharge	13	9.3	4	30
Blunt object	20	14.3	2	10
Sharp object	24	17.1	1	4.2
Bodily force	39	27.9	0	-
Rifle, shotgun and larger firearm	2	1.4	0	-
Unspecified means	4	2.9	0	-
Legal intervention	3	2.1	0	-
Total	140	100.0	24	17.1

[a] Rate per 100 trauma patients

Table 8: Rate of Fatality Among Trauma Patient Due to Unintentional Injuries, Washoe County, 2019				
Mechanism of Injury (MOI)	**Number**	**Percent of Total**	**Deaths**	**Case Fatality Rate[a]**
Accidents				
Accident to occupant in aircraft	2	0.1%	0	0.0
Accidental discharge firearms and guns	2	0.1%	0	0.0
Accidental handgun discharge/malfunction	5	0.3%	0	0.0
Accidental hit, strike, kick, bite or scratch	2	0.1%	0	0.0
Accidental drowning and submersion	2	0.1%	2	100.0
Accidental rifle, shotgun and larger firearm	1	0.1%	0	0.0
Accidental striking by another person	5	0.3%	0	0.0
Animal-rider injured in transport accident	16	1.1%	1	6.3
Car occupant(s)				
Collision with car, pick-up truck or van	57	3.8%	7	12.3
Collision with fixed or stationary object	27	1.8%	3	11.1
Collision with heavy transport vehicle or bus	8	0.5%	0	0.0
Collision with pedestrian or animal	1	0.1%	0	0.0
Non-collision transport accident	60	4.0%	3	5.0
Other and unspecified transport accidents	2	0.1%	0	0.0
Crushed, jammed in or between objects	2	0.1%	0	0.0
Contact with specified object				
Contact with agricultural machinery	1	0.1%	0	0.0
Contact with dog	7	0.5%	0	0.0
Contact with hot air and other hot gases	1	0.1%	0	0.0
Contact with lifting and transmission devices	1	0.1%	0	0.0
Contact with nonvenomous plant	1	0.1%	0	0.0
Contact with other and unspecified machinery	3	0.2%	0	0.0
Contact with other hot fluids	1	0.1%	0	0.0
Contact with other mammals	15	1.0%	0	0.0
Contact with other sharp objects	4	0.3%	0	0.0
Contact with sharp glass	1	0.1%	0	0.0
Crushed, pushed or stepped on by crowd	1	0.1%	0	0.0
Discharge of firework	3	0.2%	0	0.0
Exposure to controlled fire in building	1	0.1%	0	0.0
Exposure to highly flammable material	1	0.1%	0	0.0

Table 8: Rate of Fatality Among Trauma Patient Due to Unintentional Injuries, Washoe County, 2019 (cont'd)				
Mechanism of Injury (MOI)	**Number**	**Percent of Total**	**Deaths**	**Case Fatality Rate[a]**
Falls				
Fall due to ice and snow	46	3.1%	0	0.0
Fall from bed	33	2.2%	3	9.1
Fall from chair	25	1.7%	2	8.0
Fall from cliff	1	0.1%	0	0.0
Fall from non-moving wheelchair, scooter	7	0.5%	0	0.0
Fall from other furniture	4	0.3%	0	0.0
Fall from, out of or through building	10	0.7%	0	0.0
Fall on and from ladder	35	2.3%	0	0.0
Fall on and from playground equipment	1	0.1%	0	0.0
Fall on and from scaffolding	2	0.1%	0	0.0
Fall on and from stairs and steps	48	3.2%	0	14.6
Fall on same level from slipping or tripping	388	25.8%	7	3.9
Fall while being carried by other persons	2	0.1%	15	0.0
Fall, jump or diving into water	1	0.1%	0	0.0
Unspecified fall	26	1.7%	2	7.7
Motorcycle				
Collision with car, pick-up truck or van	18	1.2%	6	33.3
Collision with fixed or stationary object	9	0.6%	0	0.0
Collision with heavy transport vehicle or bus	1	0.1%	1	100.0
Collision with pedestrian or animal	2	0.1%	0	0.0
Collision with two or three motor vehicle	1	0.1%	0	0.0
Non-collision transport accident	27	1.8%	2	7.4
Other and unspecified transport accidents	3	0.2%	0	0.0
Occupant in transport accidents				
Vehicle injured in non-collision	11	0.7%	1	9.1
Pick-up truck or van injured in collision	14	1.3%	5	35.7
Special all-terrain or other off-road motor	56	3.7%	0	0.0
Three-wheeled motor vehicle	2	0.1%	0	0.0
Other specified incidents				
Other fall from one level to another	21	1.4%	0	0.0
Other fall on same level due to collision	1	0.1%	0	0.0
Other slipping, tripping and stumbling	106	8.1%	16	13.1

Table 8: Rate of Fatality Among Trauma Patient Due to Unintentional Injuries, Washoe County, 2019 (cont'd)				
Mechanism of Injury (MOI)	**Number**	**Percent of Total**	**Deaths**	**Case Fatality Rate[a]**
Other specified air transport accidents	2	0.1%	0	0.0
Other undetermined intent	1	0.1%	0	0.0
Pedal cycle rider				
Collision with car, pick-up truck or van	6	0.4%	1	16.7
Collision with fixed or stationary	2	0.1%	1	50.0
Collision with other pedal cycle	1	0.1%	0	0.0
Collision with pedestrian or animal	1	0.1%	0	0.0
Non-collision transport accident	31	2.1%	0	0.0
Other and unspecified transport accidents	2	0.1%	0	0.0
Pedestrian				
Conveyance accident	99	6.6%	4	4.0
Collision with car, pick-up truck or van	31	2.1%	5	16.1
Other and unspecified transport accidents	2	0.1%	0	0.0
Assault, maltreatment and neglect	1	0.1%	0	0.0
Striking against or struck by other objects	22	1.5%	0	0.0
Contact with venomous animals or plant	4	0.3%	0	0.0
Unspecified MOI	**140**	**9.3%**	**-**	**-**
Total	**1,361**	**90.67**	**89**	**6.5**

*Rate per 100 trauma patients

Mechanism of Injury by Age Group

Table 9 indicates the top three mechanisms of intentional and unintentional traumatic injury by selection of age groups: 0-19 years, 20-54 years old, and 55 years and older. Falls and motor vehicles were among the top three mechanisms of injury across all age groups, including high reported number of intentional assaults among cases in the 20-54 years old age group. Intentional assault reported varies in mechanism of injury from assaults due to bodily force (36%), assault by sharp object (23%), assault by blunt object (17%) and assault by handgun discharge (12%), and assault by other specified/unspecified means (12%). Pedestrian were among the top three unintentional injuries across all age group with a case fatality rate of 50 per 100 trauma patients (Table 9).

Table 9: Top 3 Mechanisms of Injury by Number of Incidents by Age Group in Washoe County, 2019

Rank	0-19 years	20-54 years	55+ years
1	Pedestrian	Transport/Motor Vehicle	Falls, Stumbling, Slipping
2	Transport/Motor Vehicle	Intentional Assault	Transport/Motor Vehicle
3	Falls & Pedal Cycle (tied)	Falls & Pedestrian (tied)	Pedestrian

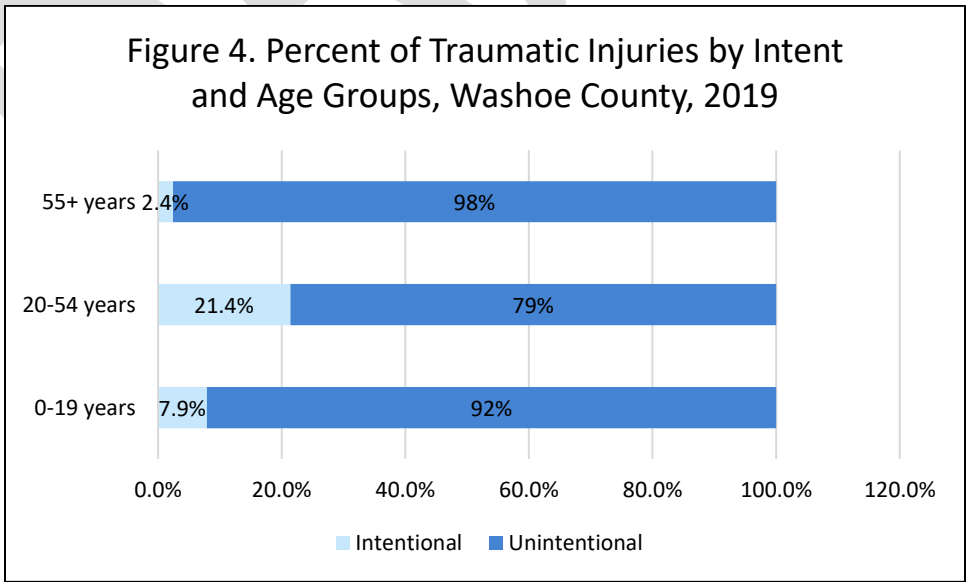


Figure 5. Unintentional Fall Incidents by Zip Code, Washoe County, 2017 - 2019

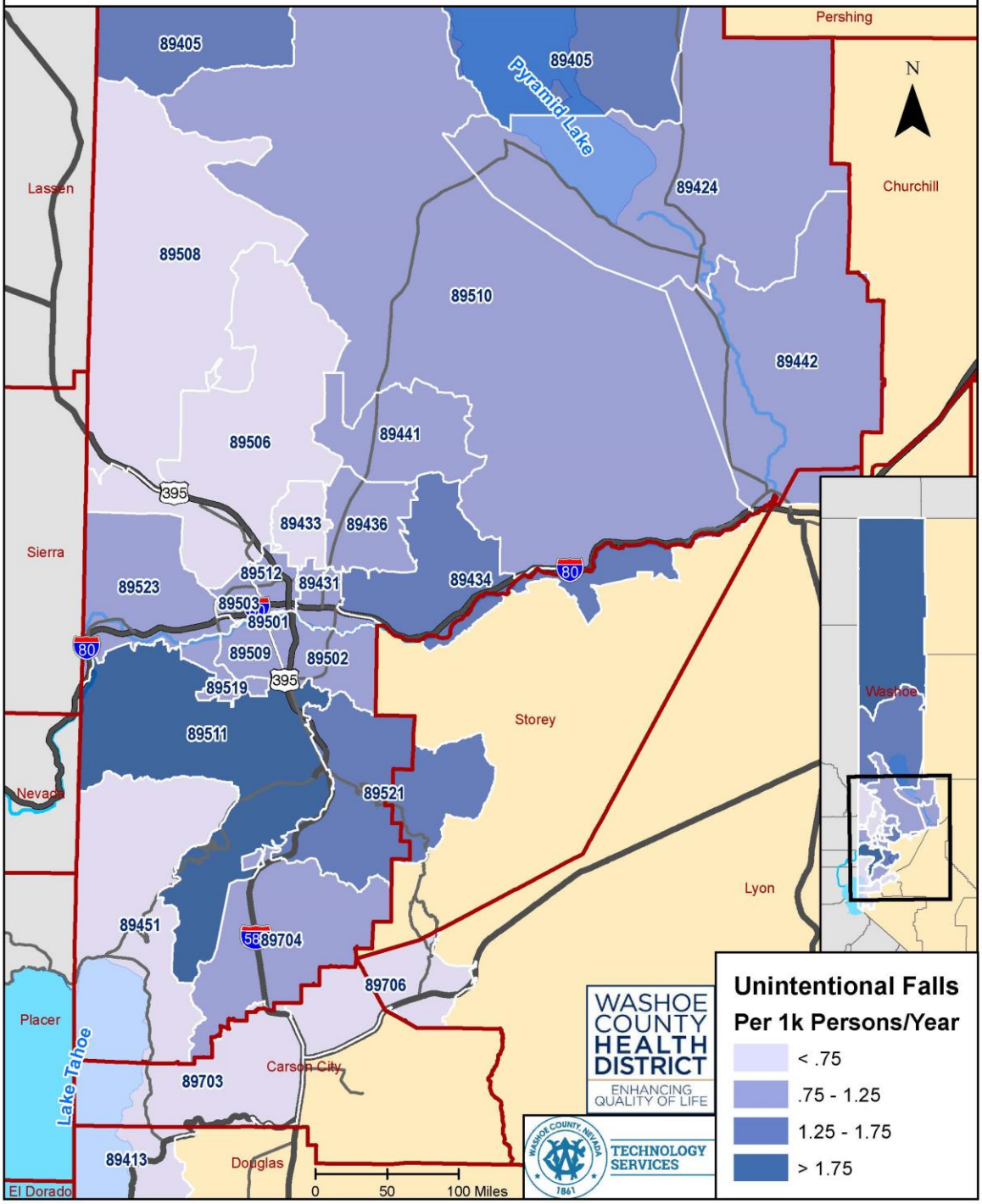


Figure 6: Unintentional Motor Vehicle Incidents by Zip Code, Washoe County, 2017 - 2019

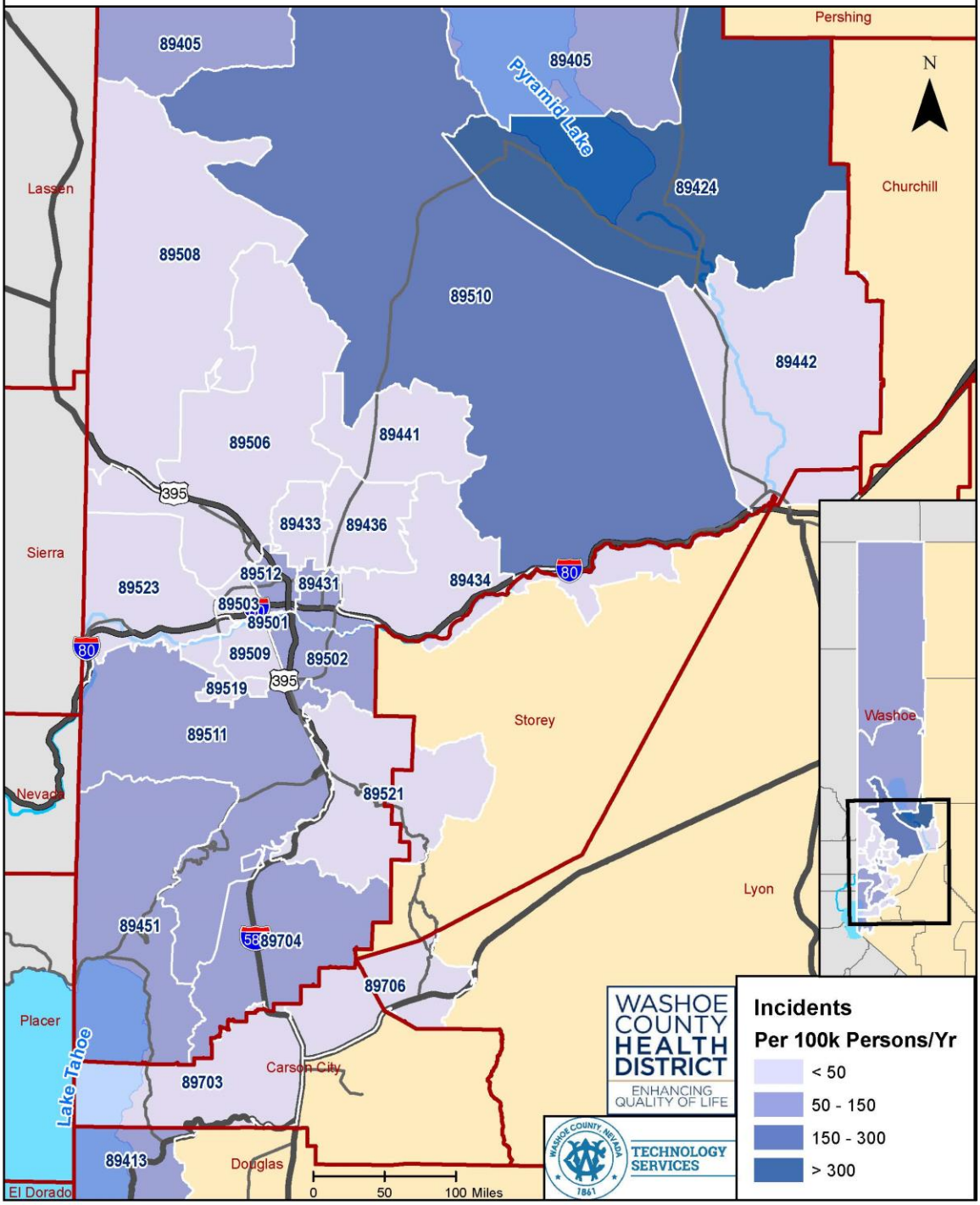


Figure 7: Intentional Cut/Pierce Incidents by Zip Code, Washoe County, 2017 - 2019

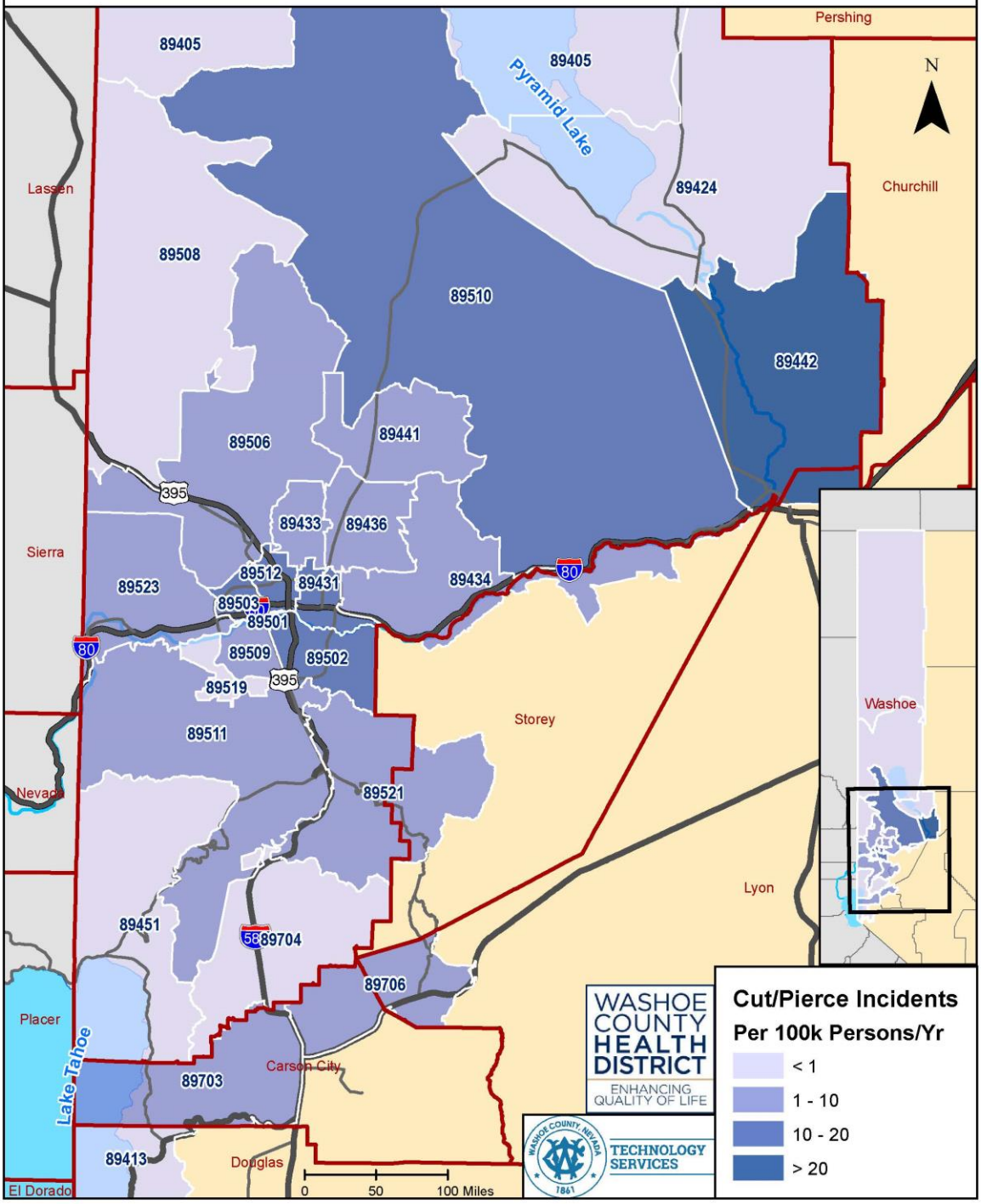
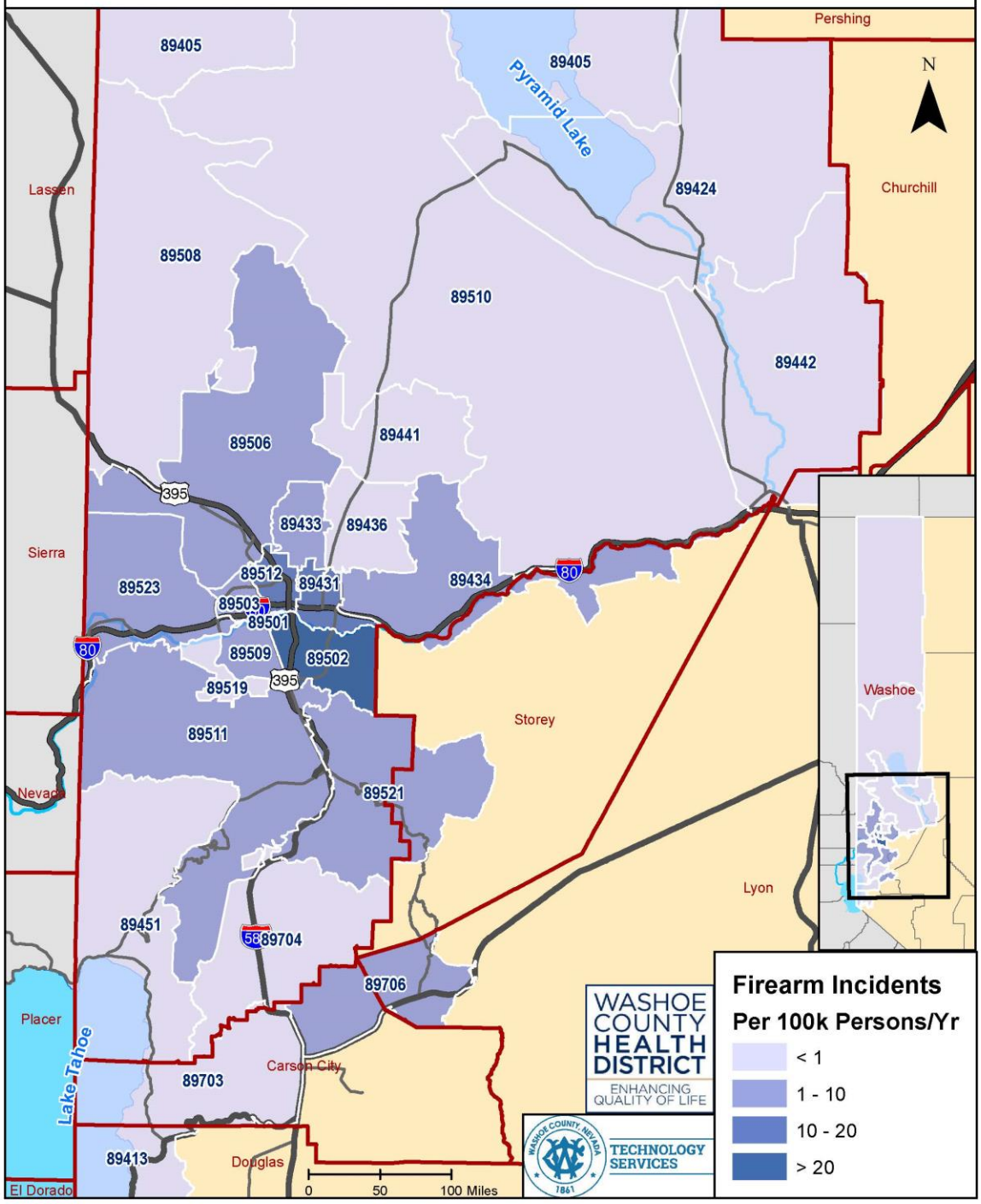


Figure 8: Intentional Firearm Incidents by Zip Code, Washoe County, 2017 - 2019



Spatial Pattern of Injury by Zip Code

In 2019, unintentional falls were the primary mechanism of unintentional injury (48.2%), followed by motor vehicle incidents (23%). Figure 5 depicts spatial pattern of unintentional fall injuries in Washoe County over the span of three years from 2017 – 2019 with more than 2 incidents per 1,000 persons/year in zip codes 89511, 89521, 89434 and 89405. Figure 6 depicts spatial patterns of unintentional motor vehicle injuries as primary MOI. Unintentional motor vehicle incidents highest in zip codes 89510 and 89424 with 150 - 300 incidents reported per 100,000 persons/year.

Intentional injuries accounted for 9.3% of all traumatic injuries in Washoe County (Table 6). Among all intentional injuries, two out of three trauma cases reported due to assault by sharp/blunt object (31.4%), and bodily force (27.9%). Figure 7 depicts intentional injuries due to cut/pierce by sharp/blunt object with high incidents reported in zip code 89442 (>20 incidents per 100,000 persons/year. Among the zip codes in the metropolitan city areas in Washoe County, zip code 89503, 89502, 89512 and 89431 reported 10 – 20 cut/pierce incidents per 100,000 persons/year.

Firearm related incidents accounted for only 20% of intentional incidents reported in 2019, with alarming case fatality rates in Washoe County (Table 7). Figure 8 depicts intentional injuries due to firearm incidents in Washoe County. Zip codes areas in 89502, 89512, 89501, 89431 reported more than 20 firearm incidents per 100,000/year.

Place of Injury

The Nevada Trauma Registry database captures place of injury through ICD-10-CM codes, which allows for detailed classification of the place of injury. Over half of trauma cases reported in Washoe County occurred in a specified place in private residence, streets and highway (Table 10).

Table 10: Detailed Place of Injury, Washoe County, 2019

Place of Injury	Number	Percent
Airport	**1**	**0.08**
Baseball field	**1**	**0.08**
Basketball court	**1**	**0.08**
Bathroom	**63**	**4.81**
Bathroom in apartment	8	0.61
Bathroom in mobile home	1	0.08
Bathroom in nursing home	3	0.23
Bathroom in other non-institutional residence	1	0.08
Bathroom in other specified residential institution	2	0.15
Bathroom in prison	1	0.08
Bathroom of single-family (private) house	39	2.97
Bathroom of unspecified non-institutional residence	8	0.61
Beach	**3**	**0.23**
Bedroom	**95**	**7.24**
Bedroom in apartment	15	1.14
Bedroom in mobile home	3	0.23
Bedroom in nursing home	26	1.98
Bedroom in other non-institutional residence	2	0.15
Bedroom in other specified residential institution	3	0.23
Bedroom of single-family (private) house	37	2.82
Bedroom of unspecified non-institutional residence	9	0.69
Campsite	**2**	**0.15**
Cell of prison	**3**	**0.23**
Courtyard of prison	**1**	**0.08**
Daycare center	**1**	**0.08**
Derelict house	**25**	**1.91**
Desert	**21**	**1.60**
Dining room	**5**	**0.39**
Dining room in other specified residential institution	1	0.08
Dining room of single-family (private) house	3	0.23
Dining room of non-institutional residence	1	0.08

Table 10: Detailed Place of Injury, Washoe County, 2019 (cont'd)		
Place of Injury	**Number**	**Percent**
Driveway of mobile home	**1**	**0.08**
Driveway of other non-institutional residence	**1**	**0.08**
Exit ramp or entrance ramp of street or highway	**2**	**0.15**
Football field	**1**	**0.08**
Forest	**19**	**1.45**
Garden	**99**	**7.55**
Garden or yard in single-family (private) house	70	5.34
Garden or yard of mobile home	3	0.23
Garden or yard of nursing home	2	0.15
Garden or yard of unspecified non-institutional (private) residence	24	1.83
Gas station	**1**	**0.08**
Ice skating rink (indoor) (outdoor)	**1**	**0.08**
Interstate highway	**96**	**7.32**
Kitchen	**43**	**3.28**
Kitchen in apartment	3	0.23
Kitchen in mobile home	2	0.15
Kitchen in other specified residential	1	0.08
Kitchen of single-family (private) house	27	2.06
Kitchen of unspecified non-institutional (private) residence	10	0.76
Local residential or business street	**121**	**9.23**
Other	**232**	**17.71**
Other athletic field	1	0.08
Other paved roadways	7	0.53
Other place in apartment	11	0.84
Other place in mobile home	3	0.23
Other place in nursing home	3	0.23
Other place in other non-institutional residence	3	0.23
Other place in other specified residential institution	1	0.08
Other place in prison	2	0.15
Other place in single-family (private) house	43	3.28
Other place in unspecified non-institutional (private)	11	0.84
Other public administrative building	2	0.15
Other recreation area	114	8.70
Other school	1	0.08
Other transport vehicle	1	0.08

Table 10: Detailed Place of Injury, Washoe County, 2019 (cont'd)		
Place of Injury	**Number**	**Percent**
Other wilderness area	29	2.21
Parking lot	**31**	**2.36**
Parkway	**3**	**0.23**
Patient room in hospital	**1**	**0.08**
Private driveway to single family (private) house	**21**	**1.60**
Private garage of single family (private) house	**12**	**0.92**
Public park	**7**	**0.53**
Railroad track	**1**	**0.08**
Restaurant or café	**14**	**1.07**
Shop (commercial)	**4**	**0.31**
Sidewalk	**68**	**5.19**
State road	**6**	**0.46**
Supermarket, store or market	**8**	**0.61**
Truck	**1**	**0.08**
Unspecified place	**290**	**22.13**
Unspecified place in apartment	30	2.29
Unspecified place in mobile home	3	0.23
Unspecified place in nursing home	25	1.91
Unspecified place in other non-institutional residence	4	0.31
Unspecified place in other specified residential institution	3	0.23
Unspecified place in prison	10	0.76
Unspecified place in single-family (private) house	86	6.56
Unspecified place in unspecified non-institutional (private)	71	5.42
Unspecified street and highway	58	4.42
Unspecified place in apartment	30	2.29
Unspecified place in mobile home	3	0.23
Unspecified place in nursing home	25	1.91
Unspecified place in other non-institutional residence	4	0.31
Missing	195	12.9
Total	**1,501**	**100.0**

Table 11: Rate of Fatality by Place of Injury, Washoe County, 2019				
Place of Injury	**Number of Incidents**	**Percent of Incidents**	**Number of Deaths**	**Case Fatality Rate [a]**
Athletic court/Field	**9**	**0.6**	**0**	**0**
Farm	**15**	**1.0**	**0**	**0**
Industrial/Construction	**10**	**0.6**	**0**	**0**
Institutional residence	**83**	**5.4**	**5**	**6.0**
Hospital	1	0.0	1	100.0
Nursing home	56	3.7	4	7.1
Other	9	0.6	0	0
Prison	17	1.1	0	0
Movie house	**2**	**0.1**	**0**	**0**
Other	**40**	**2.6**	**5**	**12.5**
Non-institutional residence	8	0.5	1	12.5
Paved roadway	6	0.4	0	0.0
Specified place	26	1.7	4	15.4
Parking lot	**29**	**1.9**	**2**	**6.9**
Private commercial establishment	**26**	**1.7**	**1**	**3.8**
Private residence	**551**	**37.2**	**41**	**7.4**
Public building	**4**	**0.2**	**0**	**0.0**
Recreation area	**125**	**8.4**	**6**	**4.8**
Service area	**29**	**1.9**	**3**	**10.3**
Sidewalk	**68**	**4.5**	**2**	**2.9**
Street/Highway	**282**	**19.0**	**41**	**14.5**
Unspecified place/NA	**138**	**9.3**	**3**	**2.2**
Wilderness area	**69**	**4.6**	**2**	**2.9**
Missing	**21**	**-**	**-**	**-**
Total	**1,501**	**100%**	**111**	**7.5**

[a] Rate per 100 trauma patients

Table 11 depicts pattern of injuries and fatalities by place of injury in Washoe County. Highest incidence of injury reported in 2019 occurred in private residence (37.2%), followed by street/highway (19.0%). Highest case fatality rates were among incidents in non-institutional residence [CFR:15.4], street and highway [CFR:14.5], and service areas [CFR:10.3].

Injury Severity

The Injury Severity Score (ISS) is an ordinal anatomical scoring system that provides an overall score for patients with multiple injuries. The score may range from 1-75. The ISS score is calculated as the sum of the squares of the highest Abbreviated Injury Score (AIS) for the three most severely injured region out of six AIS grouped regions: head or neck, face, chest, abdominal, or pelvic contents, extremities or pelvic girdle, and external[7]. The category of the injury severity is minor, moderate, severe, or very severe. Categories derived based on the 2016 National Trauma Data Bank Annual Report which assigns ISS into the groups identified in Table 12.

Table 12: Injury Severity Score & Category

Injury Severity Score (ISS)	ISS Category
1 to 8	Minor
9 to 15	Moderate
16 to 24	Severe
25 or higher	Very Severe

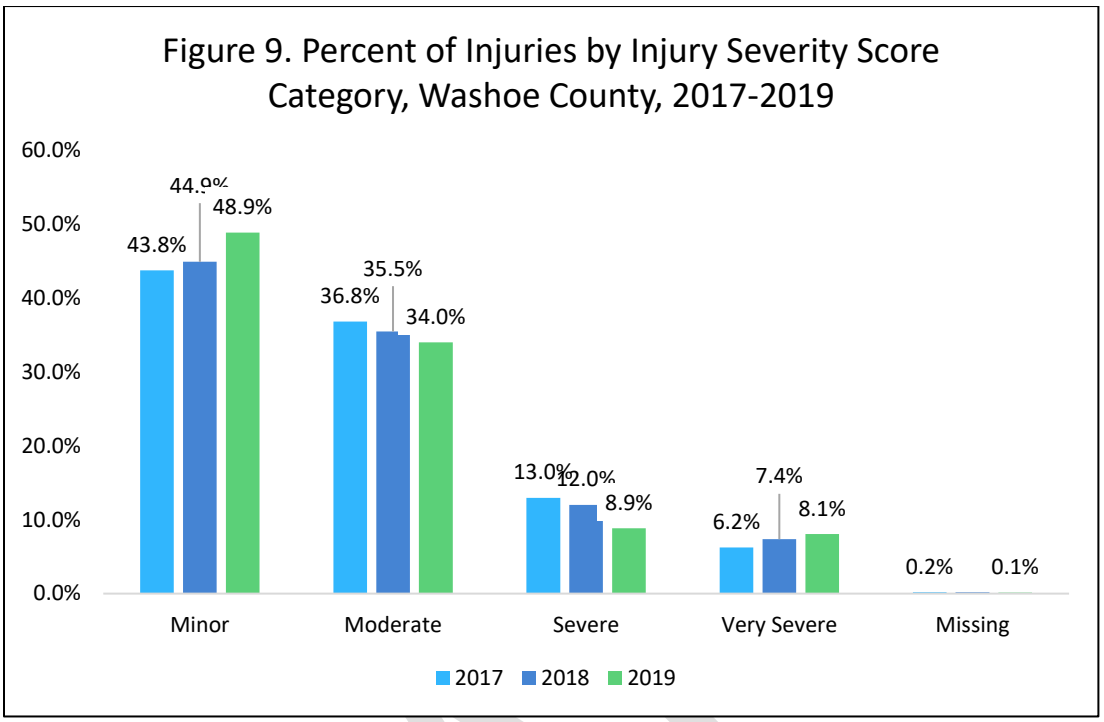
Table 13: Rate of Fatality by Injury Severity Score Category, Washoe County, 2019

Injury Severity Score Category	Number of Injuries	Percent of Injuries	Number of Deaths	Case Fatality Rate*
Minor	734	48.9%	11	1.5
Moderate	511	34.0%	17	3.3
Severe	133	8.9%	16	12.0
Very Severe	121	8.1%	69	57.0
Missing	2	0.1%	0	0
Total	**1,501**	**100%**	**113**	**7.5**

[a] Rate per 100 trauma patients

Eight in ten traumatic injuries in Washoe County were categorized as minor or moderate injuries (Table 13). While nearly one in ten incidents were categorized as severe or very severe. The case fatality rate increases dramatically with each increase in ISS category. In 2019, trauma cases with very severe injuries accounted for more than half of deaths reported (57.0%).

[7] An overview of the injury severity score and the new injury severity score. BMJ Injury Prevention. Accessed https://injuryprevention.bmj.com/content/7/1/10



Over the span of 2017 – 2019, the trend for minor injuries based on ISS increased from 43.8% to 48.9% and very severe injuries increased from 6.2% to 8.1% in Washoe County. Severe injuries decreased by 5.0% over the span of three years from 13.0% in 2017 to 8.9% in 2019 (Figure 9).

Figure 10. Percent of Arrivals by Mode of Arrival, Washoe County, 2017-2019

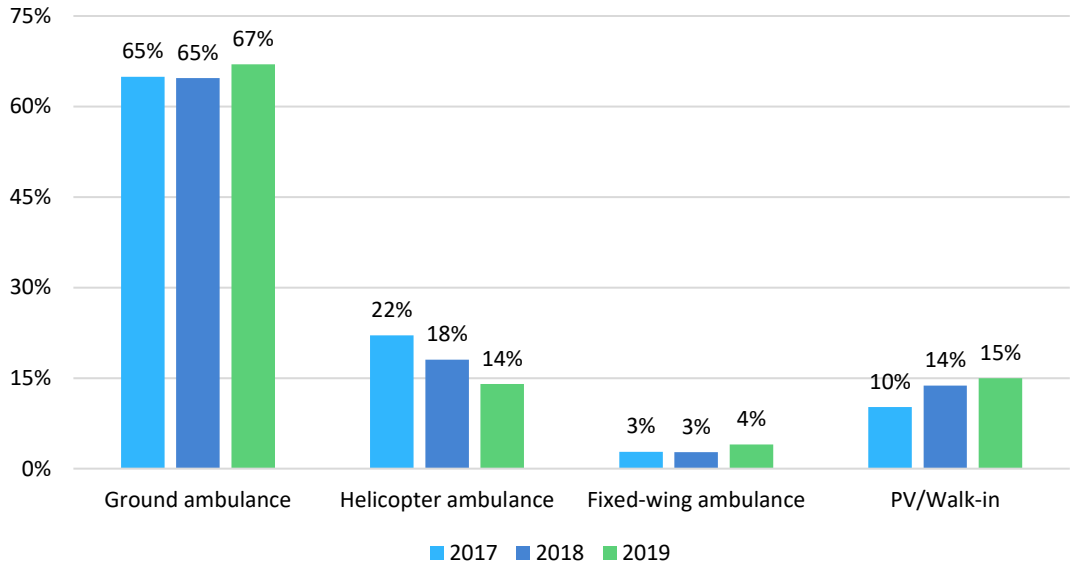


Figure 11. Mode of Arrival by Injury Severity Score Category, Washoe County, 2019

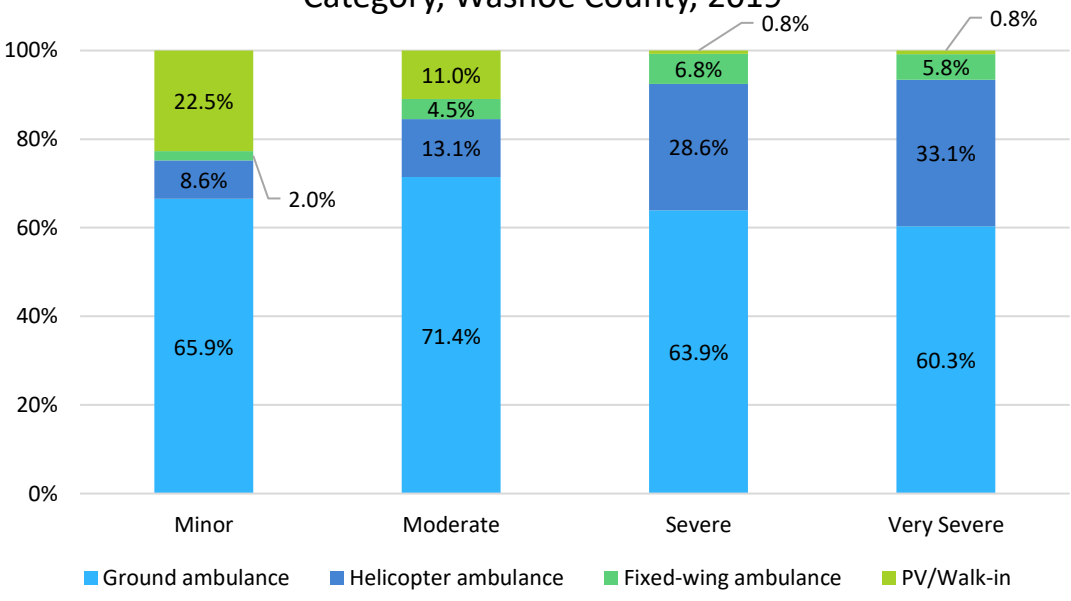


Table 14: Rate of Fatality by Mode of Arrival, Washoe County, 2019				
Mode of Arrival	**Number of Incidents**	**Percent of Incidents**	**Number of Deaths**	**Case Fatality Rate[a]**
Ground ambulance	1,008	67%	81	8.0
Helicopter ambulance	208	14%	30	14.4
Fixed-wing ambulance	54	4%	2	3.7
PV/Walk-in	223	15%	0	0.0
Police	7	0%	0	0.0
Missing	1	0%	-	-
Total	**1,501**	**100%**	**92**	**7.5**

[a] Rate per 100 trauma patients

Table 10 summarizes the distribution of transport by mode of arrival from 2017 – 2019. Majority of trauma patients in Washoe County was transported by ground ambulance (67%), followed by PV/Walk in (15%), and by helicopter ambulance (14%). In 2019, about one in three patients with injuries classified as severe (28.6%) or very severe (33.1%) were transported by helicopter ambulance (Figure 11). Trauma patient transport by helicopter ambulance decreased by 8% from 2017 – 2019 in Washoe County (Figure 10).

Highest case fatality rate reported in Washoe County were among trauma patients transported by helicopter ambulance [CFR:14.4]. Case fatality rate (CFR) by transport increases by almost two folds among patients transported in helicopter ambulance compared to ground ambulance. About one third of trauma patients with severe (28.6%) and very severe (33.1%) are transported by helicopter ambulance.

Substance Use

Approximately 47.9% of patients with traumatic injury in Washoe County were not tested for alcohol use, which is an increase from 38.0% in 2017. There has been a significant reduction in the proportion of patients who had no alcohol use, as confirmed by test (Table 18).

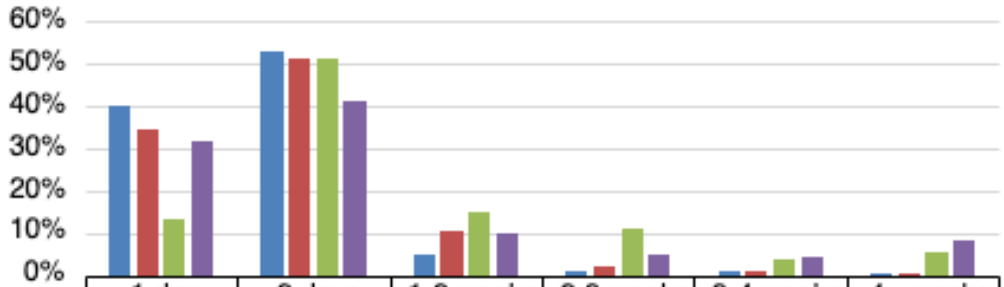
Table 15: Detected Substance Use Among Trauma Patients, Washoe County, 2017 – 2019

Alcohol Use	2017		2018		2019	
	Number	Percent	Number	Percent	Number	Percent
No/Not Tested	700	38.0%	834	39.2%	719	47.9%
No/Confirmed by Test	656	35.6%	841	39.5%	535	35.6%
Yes/Confirmed by Test, Trace Levels	249	13.5%	196	9.2%	116	7.7%
Yes/Confirmed by Test, > Legal Limit	226	12.3%	256	12.0%	129	8.6%
Unknown	10	0.5%	3	<1%	1	<1%

Patient Outcomes

Patient outcomes highlighted in this section include median length of stay spent in an intensive care unit, total length of stay by injury severity score (ISS) category and top ten highest median length of stay by mechanism of injury (MOI). Similar to previous years, four in ten (40%) of patients with traumatic injury classified as minor were discharged within one day. The length of stay increase as the severity of the injury increases, as demonstrated by nearly 35% of patients with severe traumatic injury, and 27% of patients with very severe traumatic injuries being hospitalized for longer than one week.

Figure 12. Incidents by Injury Severity Score and Length of Stay, Washoe County, 2019



	1 day	2 days	1-2 weeks	2-3 weeks	3-4 weeks	4+ weeks
Minor	40%	53%	5%	1%	1%	0%
Moderate	35%	51%	10%	2%	1%	1%
Severe	14%	51%	15%	11%	4%	5%
Very Severe	31%	41%	10%	5%	4%	8%

Intensive Care Unit

The median number of days spent in an intensive care unit (ICU) increased as the severity of injury increased every year (Table 16). Incidents involving motor vehicle collision(s) and pedal cycling had the longest median length of stay in an ICU, 17.5 days and 15.0 days, respectively (Table 17).

Table 16: Incidents by Injury Severity Score and Median Days, Washoe County, 2017 - 2019

ISS Category	2017	2018	2019
Minor	0	0	0
Moderate	2	2	2
Severe	3	4	4
Very Severe	5	6	4
Missing	1	-	-

Table 17: Top Ten Highest Median Days in ICU by Mechanism of Injury, Washoe County, 2017 - 2019

Mechanism of Injury	2019 (Days)
Occupant of motor vehicle injured in collision	17.5
Pedal cycle rider injured in unspecified transport accident	15.0
Contact with unspecified machinery	13.5
Motorcycle rider injured in collision with transport vehicle or bus	11.0
Pedestrian injured in unspecified transport accident	8.0
Occupant of railway train or vehicle injured in transport accident	7.0
Pedal cycle rider injured in collision with fixed stationary object	6.5
Intentional self-harm by sharp object	6.0
Intentional self-harm by other or unspecified firearm discharge	5.0
Intentional self-harm by hand-gun discharge	5.0

Conclusion

Falls, transportation and motor vehicle, and pedestrian incidents are very common preventable injuries in Washoe County. Spatial pattern provided in this report show incidence of common intentional and unintentional injuries across various region and jurisdiction(s) in Washoe County. The number and severity of traumatic injuries can be largely prevented by identifying high risk areas and populations, concurrent with implementing safety and prevention guidelines to reduce injury severity where most accidents occur. Adoption of best-practice policy, as recommended in this report, would also greatly reduce contributing risk factors for traumatic injuries, specifically those involving falls, and occupants of motor vehicle injury. The findings in this report is appropriate source of current research and information for various community agencies concerned with reducing the likelihood and effects of traumatic injury and contributing to safety and injury prevention efforts in Washoe County.

For further reading, the American College of Surgeon's National Trauma Reports can be accessed at https://www.facs.org/quality-programs/trauma/ntdb/docpub

Suggested Citation

Washoe County Health District, Division of Epidemiology and Public Health Preparedness. (February 2021). Washoe County 2019 Trauma Data Report. Reno, NV.

Acknowledgement

Spatial zip code maps in this report was created by Paulo Vandenberg, Washoe County Regional Technology Services

Additional Information

For additional information regarding the Washoe County Trauma Report contact

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STAFF REPORT
EMERGENCY MEDICAL SERVICES ADVISORY BOARD
MEETING DATE: May 6, 2021

TO: EMS Advisory Board Members

FROM: *Adam Heinz, MBA, NRP, AEMD, Executive Director of Integrated Health*
775-353-0782, aheinz@remsa-cf.com

SUBJECT: *REMSA Quarterly EMS Advisory Report*

SUMMARY

A brief overview of operational, clinical and community highlights from the past quarter.

DATA PERFORMANCE REPORTS.

REMSA Ground EMS			
	January	**February**	**March**
REMSA Responses	7192	6048	6605
REMSA Transports	4092	3863	4182
ILS unit Responses	72	94	114
ILS unit Transports	33	39	57
REMSA Clinical Communications			
EMS calls triaged by medically trained Emergency Medical Dispatchers	6098	5309	5774
Average emergency call duration	4:42	4:35	4:37
Average time from call to EMS unit assigned	18 seconds	24 seconds	24 seconds
Low Acuity EMS calls transferred to Emergency Communications Nurse for secondary triage	228	216	165

Mutual Aid Received to REMSA			
	January	**February**	**March**
Reno Fire Department	0	1	2
Truckee Meadows Fire Rescue	161	166	185
Storey County Fire	0	1	2

Mutual Aid Provided by REMSA			
	January	**February**	**March**
Storey County Fire	5	7	14

Hospital Offload Delays			
	January	**February**	**March**
Offload Delays	216	111	193
Median Offload Delay	26m14s	23m19s	26m45s
Maximum Offload Delay	2h27m	1h55m	2h19m

COMMUNITY RELATIONS, EMPLOYEE ENGAGEMENT & CELEBRATIONS

COVID-19 Vaccination News

- REMSA estimates that 85 percent of our employees are fully vaccinated against COVID-19. To ensure that no vaccinations are wasted, a waiting list is in place to provide vaccinations to employee family members and/friends should doses remain at the end of an employee event.

- REMSA participated in the Faith and Healthcare Community Vaccination program co-hosted by BIPOC community leaders

Education

- REMSA's Center for Prehospital Education graduated 22 paramedics, nine of which are from area fire agencies.

- REMSA Public Education Coordinator, Alma Marin was featured on KTVN's Someone to Know segment for her tireless work across the region to educate community members about the importance of knowing how to perform high-quality and hands-only CPR.

- REMSA Center for Prehospital Education launched Grand Rounds which takes an in-depth look at topics relevant to out-of-hospital healthcare, presented by subject matter experts. These events are open to all healthcare providers. They are free and offered virtual and provide continuing education credits.

Employee Engagement

- Paws 4 Love therapy dogs visited REMSA spreading delight and unconditional love

Community Connections

- REMSA's medical dispatchers were named by the Nevada Donor Network as First Responders of the Year.

- As part of heart month, REMSA donated one AED to Girls on the Run and one to the Washoe County District Attorney - Investigations Division. The availability of AEDs, along with community education about hands-only CPR are force multipliers to improving survivability from a cardiac arrest.

REMSA in the News

- NBC News Digital featured REMSA in an article highlighting the important role that ambulance providers and out-of-hospital healthcare providers, like REMSA play in navigating patients to the right level of healthcare.

- KTVN featured REMSA's participation in the homebound COVID-19 vaccination program

EMS OPERATIONS REPORT

COVID -19 impacts remain problematic with residual staffing losses. Coupled with high call volume, workload and fatigue remain high. REMSA is transitioning field staff to a 10-hour work week (from 12hours), beginning the month of May, to help mitigate fatigue. Overload conditions returned for the month of April and continue to persist. REMSA continues to partner with Truckee Meadows Fire and Rescue for primary ambulance responses in Sun Valley and Washoe Valley. We are thankful for this partnership and thank TMFR for their support.

CLINICAL STANDARDS & PRACTICES REPORT

	January	February	March
Clinical cases reviewed by Clinical Standards & Practices	326	377	339
STEMI Alerts	12	13	8
Stroke Alerts	36	36	32
Cardiac Arrests	35	47	45
Advanced Airways	31	45	48
Drug Facilitated Airways	4	1	2

STAFF REPORT
EMERGENCY MEDICAL SERVICES ADVISORY BOARD
MEETING DATE:

TO: EMS Advisory Board Members

FROM: Jim Reid, Fire Chief
(775) 353-2254, jreid@cityofsparks.us

SUBJECT: EMS Updates

SUMMARY

EMS updates for the City of Sparks (Jan 1st – march 31st, 2021)

DATA PERFORMANCE REPORTS

EMS calls

- 2,922 (Jan 1st-March 31st 2021)

EMS Mutual Aid Response

- Automatic Aid Given- 24
- Mutual Aid Given- 21
- Enhanced Aid Given- 2
- Total- 47

Number of EMS Mutual Aid Canceled Response

- Automatic Aid Given- 14
- Mutual Aid Given- 7
- Enhanced Aid Given- 0
- Total- 21

Additional Information

- Sparks Fire has run approx. 2,922 EMS related calls from Jan 1st to March 31st 2021. EMS calls account for close to 85% of our call volume.
- Vaccination PODs continue to be held weekly and are well received by the community.
- In person/hands-on EMS & suppression training has increased significantly as well as preparation for the upcoming wildland season.

Other – No action will be taken

TRUCKEE MEADOWS FIRE PROTECTION DISTRICT
STAFF REPORT
Meeting Date: May 6, 2021

TO: Emergency Medical Services Advisory Board

FROM: Joe Kammann, Division Chief
Phone: (775) 240-5863 Email: jkamman@tmfpd.us

SUBJECT: Truckee Meadows Fire Protection District (TMFPD) Advisory Board Update

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SUMMARY

Brief update of Emergency Medical Services (EMS) Operation and incident Data for Quarter. 1 of 2021

DATA PERFORMANCE REPORTS

TMFPD Incident Response Data:

Truckee Meadows Fire Protection District			
	January	February	March
District Wide EMS Responses	629	583	665
Mutual Aid Responses	161	166	185
Mutual Aid Transports	118	126	119

COVID -19 Vaccination News

1. 86% of TMFPD Staff are fully vaccinated

2. Full time COVID-19 Vaccination Coordinator created. Duties include but are not limited to the following
   - Coordinate COVID19 Vaccination PODS
   - COVID-19 Testing
   - Oversee Vaccination documentation requirements
   - Health District COVID-19 Liaison

3. TMFPD has partnered with Dr. Pasternack at Silver Ridge Center to provide vaccinations to over 1000 Citizens

4. TMFPD and Washoe County Health District (WCHD) to provide COVID-19 and influenza vaccinations and COVID-19 testing to the citizens of Gerlach and Rural Washoe County.

5. Over 4200 Doses Administered by TMFPD as of April 24, 2021

EMS Operations Report

1. 19 new Firefighters/Paramedics (FFPM) currently on probation.

2. 10 FFPM's are currently in a recruit academy set to graduate on June 18th.

3. 101 Total State Certified Paramedics on TMFPD Staff

4. 25 Qualified Wildland Fire-Line Medics are available to provide Advanced Life Support medical care to wildland firefighting personnel throughout the United States

5. Medic 30 and Medic 45 ambulances are staffed and responding to mutual aid requests in Washoe Valley and Sun Valley