



Vision Zero Traffic Fatality Protocol

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SFMTA
Municipal
Transportation
Agency





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We wish to sincerely thank Nina Fiore, Executive Secretary of the San Francisco Office of the Medical Examiner who is instrumental in providing crucial mortality data and other valuable supplementary information needed in order to implement this process.



Vision Zero Traffic Fatality Protocol

I. Purpose

Eliminating traffic fatalities by 2024 is the goal of San Francisco's Vision Zero policy. A standardized case definition across city agencies ensures consistency of fatality counting and reporting. A clear case definition for traffic fatalities is critical for data collection, data analysis, and evaluation of the burden of traffic mortality in the City and County of San Francisco, and tracking progress towards the Vision Zero goal.

II. Execution and Reporting

On a monthly basis, SFDPH's (San Francisco Department of Public Health) Vision Zero Epidemiologist will convene a meeting with SFPD (San Francisco Police Department) and SFMTA (San Francisco Municipal Transportation Agency) to reconcile all traffic fatalities occurring in the prior month as reported from the Office of the Medical Examiner (OME) and SFPD. The process is as follows:

- 1) In the first week of the month, the OME distributes a monthly death report to SFDPH, SFMTA, and SFPD.
- 2) Following receipt of this report and in the second week of the month, representatives from SFDPH, SFMTA, and SFPD will meet to evaluate the reported deaths by the OME with additional information provided by SFPD reports using the traffic fatality case definition described in this protocol to determine the number of reportable deaths for Vision Zero. Agencies will also review any new information that has emerged regarding previous cases that could potentially impact case classification. A standing meeting time will be established that facilitates attendance by representatives from all agencies. If no deaths occur during the month under review, the group will not meet, but will confirm via phone or email.
- 3) Suspected or probable cases requiring additional follow-up or investigation for case classification will be assigned to the appropriate agency representative, who will report results back to SFDPH as soon as possible.
- 4) Once suspected and probable case issues are reconciled and reviewed by all three agencies, SFDPH will report final traffic fatality counts in the Vision Zero Reporting Template (Appendix A) to identified Vision Zero Stakeholders (see Appendix B) via email and maintain associated documentation.
- 5) The final Vision Zero fatalities will also be mapped and posted on the Vision Zero website on a monthly basis once the reporting template is complete.
- 6) Final Fatality Counts are subject to revisions if new information emerges that results in revised classifications.

III. Data Sources

Two primary data sources are used to identify traffic fatalities:

- 1) **Office of the San Francisco Chief Medical Examiner's Motor Vehicle Monthly Death Report**
The OME Motor Vehicle Death data is reported to SFDPH, SFMTA, and SFPD on a monthly basis. The report provides summary level information regarding the incident, including victim name, age, gender, location of incident, circumstance of fatality, date and time of death, and the investigating agency. Included in these reports are all motor vehicle deaths occurring in the City and County of San Francisco, even where the investigating agency is non-SFPD (i.e. CHP, BART Police, or San Mateo Police). The reports also include some deaths not occurring in the City and



County of San Francisco but examined by the OME. OME defines vehicular deaths to include operators and passengers of vehicles (automobiles, motorcycles, motorized scooters, and municipal public transit vehicles), bicyclists, and pedestrians. The more detailed OME investigative reports are not available at the time of the monthly reports, but these reports are routinely requested by SFDPH once finalized. OME uses results from their investigative reports to classify vehicular deaths as Accident, Homicide, Suicide, or Undetermined, which are summarized in their Annual Report.

2) San Francisco Police Department Report on Fatal Traffic Collisions

When there is a need for case clarification, SFPD will bring CHP 555 Traffic Collision Reports or other salient documentation regarding recent fatalities to inform case identification.

IV. Traffic Fatality Case Definition

Inclusion Criteria

Fatalities included are: any person(s) killed in or outside of a vehicle (bus, truck, car, motorcycle, bike, moped, light rail vehicle (LRV), etc.) involved in a crash, or killed within the public roadway due to impact with a vehicle or road structure, or anyone who dies within 30 days of the public roadway incident as a result of the injury sustained within the City or County of San Francisco. In the event where a case dies within 30 days of the collision/incident date, but their death date occurs in the following calendar month or year, the case will be classified based on the collision date. This is consistent with the definition used by the California Highway Patrol's Statewide Integrated Traffic Records System (SWITRS), the primary data source utilized by the City for fatalities tracking prior 2013 – with the exception of the inclusion of LRV, as further addressed below.

LRV: LRV traffic deaths involving motor vehicles are included and captured in the SWITRS database. However, fatality cases involving pedestrian/cyclist versus LRV are not captured in SWITRS, but will be included in the appropriate category for traffic fatality counts and will be noted with an asterisk below the table. This reporting approach facilitates long-term trend analysis of comparable datasets with previous years of SWITRS data. See Appendix C for further explanation.

Freeways: Traffic fatalities on freeways are tracked, but are not included in the Vision Zero total counts, and instead reported in a separate note below the table. Freeways are defined as grade separated highway with high-speed vehicular traffic and controlled ingress/egress. The City has plans to further engage with State agencies including CalTrans and the California Highway Patrol regarding transportation safety issues. The recording and reporting of traffic deaths occurring on the freeway and freeway ramps that are designated State jurisdiction will be included in Vision Zero traffic death reporting as a separate note and will facilitate this engagement.

Freeway Ramps: Freeway ramp deaths occurring within a City intersection or that occur at the limit line within City jurisdiction will be counted in Vision Zero Traffic Fatalities total count. (Freeway ramp intersections are ramp transitions to a City street jurisdiction at street-level intersections or designated crosswalks where jurisdiction transfers from the state to the City.)

Exclusion Criteria

A case will be excluded if the death:

- Occurs outside of the City or County of San Francisco (Presidio is considered part of the City)



- Occurs on private property
- Occurs in the underground MUNI or BART transportation infrastructure
- Is reported as a Suicide based on agency-specific investigation
- Is reported as a Homicide in which the ‘party at fault’ intentionally inflicted serious bodily harm that causes the victim’s death (See Appendix F for additional detail)
- Is a fatality caused directly and exclusively by a medical condition or where the fatality is not attributable to road user movement on a public roadway. (Note: In the event that a person driving suffers a medical emergency and consequently hits and kills another road user, the road user is included although the driver suffering a medical emergency is excluded.)

Please refer to Appendix D for a flow chart.

V. Case Classification

Deceased: Victims are classified based on the incident report as: Pedestrian, Driver, Passenger, Motorcyclist, or Cyclist. Note: Deaths of individuals travelling in a wheelchair will be captured under pedestrian counts, and denoted with a separate asterisk under the reporting table.

Freeway count: A death that occurs solely on a freeway or freeway ramp that does not intersect with a non-freeway street within the City or County of San Francisco.

LRV/Pedestrian or Cyclist count: A pedestrian or cyclist death that involves a collision with an aboveground light rail vehicle (LRV).

VI. Vision Zero Reporting Template and Internal Tracking Table

Vision Zero Reporting Table Template

A Vision Zero Reporting Table template (Appendix A) will be used to summarize all traffic deaths that meet the Vision Zero Traffic Fatality Case Definition. This table will display the distribution of San Francisco City Streets deaths by mode, with LRV-pedestrian fatalities noted with an asterisk and freeway deaths. To maintain comparability to SWITRS data, LRV-pedestrian deaths are captured and tracked separately since SWITRS data excludes that mode.

Vision Zero Tracking Table Template

In order to track the classification of all cases, a “Tracking” table will be utilized, categorizing each death by victim and traffic circumstances (Appendix E). Using the Vision Zero Traffic Fatality Case Definition, traffic deaths will be either included or excluded for Vision Zero Reporting based on the criteria, which will be reflected in this table. The “Tracking” table will be retained as documentation of the process and accountability for all reported traffic deaths in the City and County of San Francisco. For traffic deaths that fall outside of the scope of Vision Zero, efforts will be made to identify opportunities to work with other city agencies addressing these deaths.

Distribution

Once deaths are reconciled through this process, the Vision Zero Reporting Table will be distributed to the appropriate agencies and Vision Zero Stakeholders as listed in Appendix B and the website will be updated. The Vision Zero Tracking Table will also be distributed to the Fatality Reporting Team representatives from SFPD, SFMTA, and SFDPH.



Appendix A

Vision Zero Reporting Template

Traffic Fatalities through Current Month, Year

Traffic Victim	Current Month Count	Year to Date Count
People Killed While Walking*	0	0
People Killed While Cycling*	0	0
People Killed While Riding in a Motor Vehicle	0	0
People Killed While on a Motorcycle	0	0
People Killed While Driving	0	0
TOTAL	0	0

*X of those cases involved collisions between above-ground light rail vehicle (LRV) and a pedestrian or cyclist on city streets; LRV/pedestrian or cyclist injury collisions are not captured in the CHP's Statewide Integrated Traffic Records System

Note: The table does not reflect X freeway deaths occurring on grade-separated freeways under Caltrans jurisdiction in the City and County of San Francisco.



Appendix B

Vision Zero Fatality Reporting

Upon finalization of traffic fatality counts, the monthly and year-to-date reporting templates will be distributed to key Vision Zero Stakeholders as listed below on a monthly basis:

Mayor's Office

- Senior Advisor on Vision Zero

SFMTA

- SFMTA Director
- SFMTA Vision Zero Co-Chair
- SFMTA Vision Zero Lead
- SFMTA Traffic Engineer
- SFMTA Vision Zero Communication Leads
- SFMTA Vision Zero Project Coordinator

SFPD

- SFPD Police Chief
- SFPD Commander of the Municipal Transportation Agency

SFDPH

- SFDPH Director and Health Officer
- SFDPH Vision Zero Co-Chair
- SFDPH Vision Zero Communication Leads

Vision Zero Traffic Fatality Reporting Team Representatives from SFPD, SFMTA, SFDPH



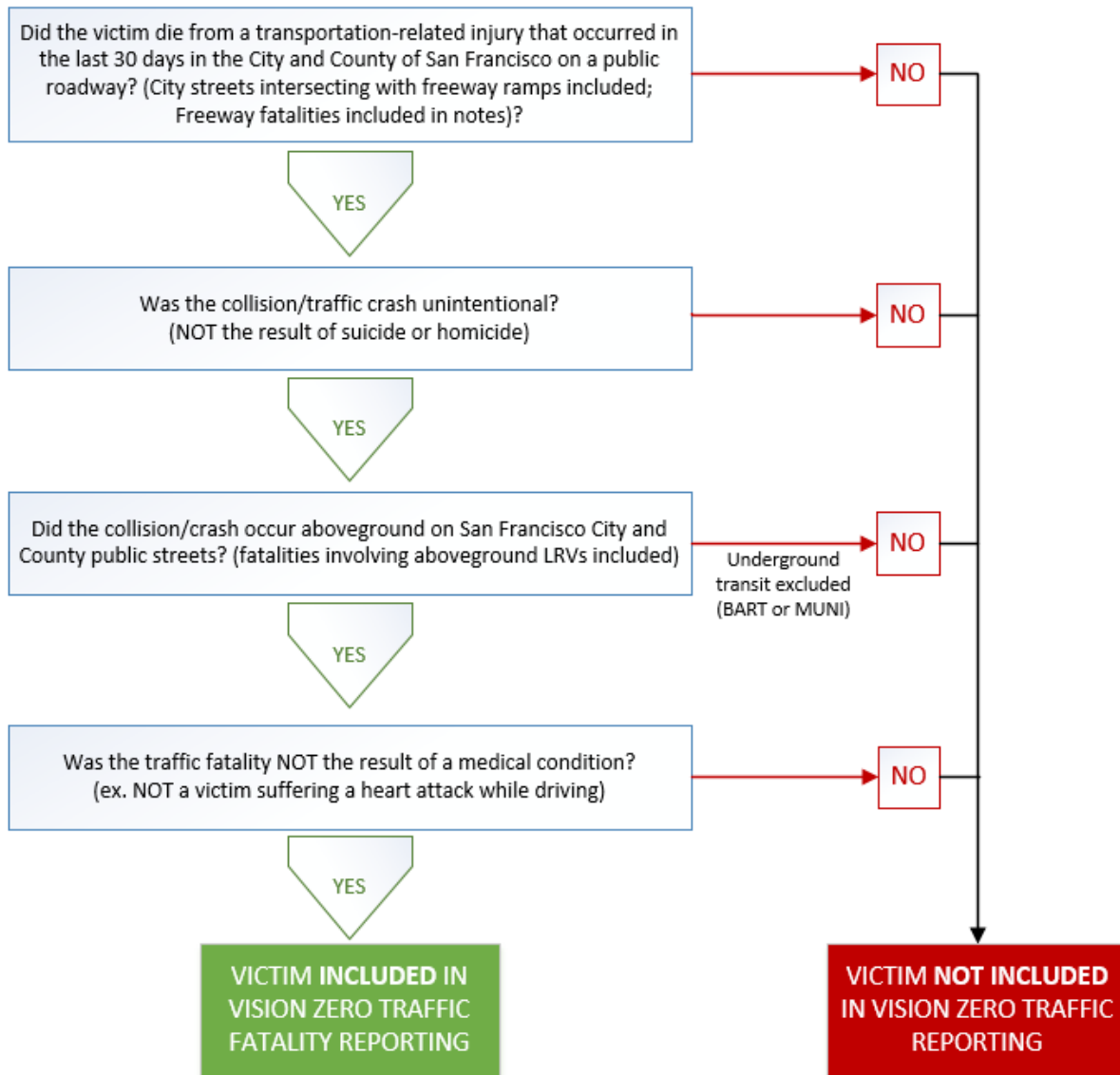
Appendix C: Pedestrian and Cyclist Fatalities Involving Aboveground Light Rail Vehicles

Aboveground light rail vehicle fatality collisions involving pedestrians or cyclists have been identified as important categories of victims to track separately under Vision Zero Traffic fatalities, as they meet the traffic fatality definition criteria, but are not captured in the police-reported data from the Statewide Integrated Traffic Records System (SWITRS). SWITRS protocol captures LRV injury collisions that involve motor vehicles, but do not include LRV injury collisions that involve pedestrians or cyclists. In the Vision Zero Reporting table, we include an asterisked note below the table indicating the number of these fatalities, so that comparison with past data reported can still be done easily if desired. The utilization of OME’s Motor Vehicle Deaths data addresses this data gap as a consistent and reliable source to monitor and collect this data forward from 2014.

According to the Collision Investigation Manual, which informs SWITRS data collection and data standardization protocols, only LRV collisions involving a motor vehicle are captured in SWITRS reporting¹. The manual defines trains as “a series of rail vehicles that move along guides to transport freight or passengers from one place to another...[which] includes a cable car or trolley which is on rails (p 8-18)”. Specifically, in Section 13.4 of the manual, a “train is not a motor vehicle by definition for the purposes of reporting, therefore a train versus vehicle collision is only reported if the collision involves a motor vehicle – a train versus pedestrian is not documented on a CHP 555” (CHP 555 = Traffic Collision Report). LRV injury collisions involving motor vehicles are identified as “Railroad Collisions”, as defined in Section 2.52 as “any collision involving a train and a motor vehicle in transport” and are coded as “F – Train” in the Motor Vehicle Involved With” field in the Collision Table of the SWITRS dataset. Specific investigation procedures for vehicle versus train collisions are provided in chapter 13 of the CHP manual.

¹ California Highway Patrol. 2003. Collision Investigation Manual HPM 110.5. pp 1-236.

Appendix D: Traffic Fatality Case Definition Flow Chart



Appendix E

Vision Zero “Tracking” Table Template

20XX Traffic Fatalities

Mode/ Incident Circumstance	People Walking	People Driving	People Riding in a Vehicle	People Riding a Motorcycle	People Riding a Bike	Total
Vision Zero Reporting						
City Streets						0
Freeway ramp intersecting with City Street						0
LRV/Pedestrian or Cyclist ^α						0
Freeways/Presidio						
Freeway						0
Presidio						0
Medical Examiner's Exclusions						
Non-SF Jurisdiction						0
Private Property						0
Underground						0
Suicide						0
Homicide						0
Fatality in non-moving vehicle						0
Other, Death > 30 days						0
Other, Medical						0
Total	0	0	0	0	0	0

^αAboveground light rail vehicle (LRV) fatalities involving pedestrians are tracked separately, as they are not captured in the CHP's Statewide Integrated Traffic Records System (See Appendix C)

Appendix F: Definition of Homicide Exclusions For Vision Zero San Francisco Traffic Fatality Protocol

MEMORANDUM

TO: Commander Ann Mannix, Traffic Chief, San Francisco Police Department
James Shahamiri, Associate Engineer, San Francisco Municipal Transportation Agency
Ricardo Olea, City Traffic Engineer, San Francisco Municipal Transportation Agency

FROM: Leilani Schwarcz, Vision Zero Epidemiologist, San Francisco Department of Public Health
Megan Wier, Co-chair, San Francisco Vision Zero Task Force, San Francisco Department of Public Health

DATE: June 4, 2015

RE: Definition of Homicide Exclusions For Vision Zero San Francisco Traffic Fatality Protocol

The Definition of Homicides for San Francisco Vision Zero Fatality Tracking

Surveillance of traffic fatalities occurring in San Francisco has raised the issue of the death classification of 'homicide'. The term 'homicide' presents an inherent layer of complication because it is a legal term, broadly defined as any killing of a human being by another human being, which are sometimes lawful or unlawful depending on circumstance.² The Office of the San Francisco Chief Medical Examiner emphasizes that the classification of 'homicide' for the purposes of death certification is a neutral term and neither indicates, nor implies criminal intent or wrongdoing, which remains a determination or province of legal processes.³ In the current version of the Vision Zero Traffic Fatality Protocol, a death is excluded if it 'is reported as a homicide based on an agency-specific investigation'. In the practical application of this definition to evaluate traffic deaths occurring in San Francisco, this can lead to excluding traffic deaths that are a result of the 'party at fault' behaving in a way that displays extreme, reckless disregard for life. An example would be the exclusion of a pedestrian death that was the result of a police pursuit of a criminal who committed a violent crime, fleeing the scene in a motor vehicle, speeding and disregarding traffic rules, who consequently hits and kills a pedestrian in the roadway. Police investigation or Medical Examiner investigation may classify this pedestrian death as a homicide; however, we are recommending this death to be captured as a Vision Zero reported traffic fatality. This example parallels the fatal consequences of a drunk driver who kills a fellow road user due to their disobedience of traffic laws and reckless behavior, which would be a death included as a Vision Zero reportable traffic fatality.

²NOLO Law For All. Homicide: Murder and Manslaughter. (2015, May 20). Retrieved from <http://www.nolo.com/legal-encyclopedia/homicide-murder-manslaughter-32637.html>

³City and County of San Francisco Office of the Chief Medical Examiner. (2013). *Fiscal Year 2013-2014 Annual Report*. Retrieved May 20, 2015 from <http://sfgsa.org/modules/showdocument.aspx?documentid=10737>



In order to capture these deaths that are a result of reckless human behavior, the proposed revision to the Vision Zero Traffic Fatality Protocol exclusion language reads:

“A case will be excluded if the death is reported as a homicide in which the ‘party at fault’ intentionally inflicted serious bodily harm that causes the victim’s death.”

Specifically, this would allow for the exclusion of deaths resulting from the intentional use of violent weapons against victims who are actively using the transportation system (i.e. victims who suffer a gunshot wound while driving). This proposed definition is consistent with California SWITRS (Statewide Integrated Traffic Records System), FARS (Fatality Analysis Reporting System) definition and the Australian road fatality definition and would ensure that San Francisco is not underestimating traffic fatalities. As Vision Zero Traffic Fatality Reporting is conducted on a monthly basis, any corrections or revisions regarding unresolved homicides would have to be reconciled at the end of the year.

Background: California and US Traffic Fatality Definition

In the SWITRS CHP (California Highway Patrol) Manual, a fatal injury is defined as death as a result of injuries sustained in a collision, or an injury resulting in death within 30 days of the collision. The manual further explains that the following are not classified as motor vehicle collisions: (1) Suicide or self-inflicting injury (2) Homicide, Injury, or Damage Purposely Inflicted.⁴ More specifically, the manual details examples of circumstances that would qualify as homicide and consequently be excluded, such as: a person who deliberately intended to cause death, injury, or damage by driving a motor vehicle against persons, vehicles, or property; or a person who fired a gun into a motor vehicle that was travelling along a highway, where the driver was struck and subsequently lost control of the vehicle, resulting in a traffic collision; or a passenger who grabs the steering wheel of a vehicle with the intent to harm themselves and/or the driver, resulting in a traffic collision. FARS, which is a nationwide census providing NHTSA (National Highway Traffic Safety Administration), Congress and the American public yearly data regarding fatal injuries suffered in motor vehicle traffic crashes, define a traffic fatality as at least one motor vehicle involved in a crash while in transport on a traffic way and at least one person involved in the crash died as a direct result of the crash within 720 hours (30 days), which is consistent with the California SWITRS traffic fatality definition. FARS excludes cases of: deliberate intent (homicide, suicide), legal intervention (except when the fatality is an innocent victim), cataclysm (earthquake, flood, landslide, etc.), not on a traffic way (private property, parking lot), and a fatally injured person who expires after 720 hours from the time of the crash.⁵

Background: International Road Traffic Fatality Definitions

The Vision Zero Policy is a systematic approach that originated in Sweden in 1997, and was imported to San Francisco in part due to its remarkable road safety success, which aims to eliminate all roadway

⁴California Highway Patrol. (2003). *Collision Investigation Manual* (HPM 110.5). Sacramento, CA: Office of the Commissioner. Retrieved May 20, 2015 from

http://www.nhtsa.gov/nhtsa/stateCatalog/states/ca/docs/CA_CHP555_Manual_2_2003_ch1-13.pdf

⁵Chidester A. (2008). *Overview of NHTSA’s Investigation Based Programs: NASS CDS, SCI, and NMVCCS*. National Highway Traffic Safety Administration Retrieved May 20, 2015 from

http://www.nhtsa.gov/DOT/NHTSA/NVS/Public%20Meetings/SAE/2010/Chidester_SAE2010.pdf



fatalities and serious injuries. Since Sweden and other European countries have been the pioneers of this initiative, research of their definitions for a traffic fatality was undertaken. Internationally, according to OECD (Organization for Economic Co-operation and Development), IRTAD (International Traffic Safety Data and Analysis Group), WHO (World Health Organization) and UNECE (United Nations Economic Commission of Europe), a road fatality is a person who died in a traffic crash within 30 days of the crash. Suicides, but not homicides, involving the use of a road motor vehicle are excluded.⁶ Globally, approximately 80 countries use a 30-day definition for a road traffic fatality.⁷ In Sweden, road fatalities adhere to the international definition established at the Vienna convention from 1968: “Any person who was killed outright or who died within 30 days as a result of an accident”, which would have included suicides. However, as of 2010, Sweden started separating out reports into natural cause and suicides, which are then excluded from the national statistics.⁸ In Australia, another Vision Zero pioneer, a road fatality is defined as a person who dies within 30 days as a result of injuries sustained in a road traffic crash. Fatalities caused directly and exclusively by a medical condition, suicide or other deliberate act (such as homicide) or where the fatality is not attributable to vehicle movement (such as an insect or animal bite, or the accidental discharge of a weapon) are excluded. However, associated fatalities caused as a result of excluded casualties are included. For example, if a driver suffers a heart attack and subsequently dies after being involved in a road traffic crash which results in a pedestrian fatality, the pedestrian fatality is included although the driver fatality is excluded.⁹

Differences in these Approaches

Only the US and Australia specifically address the circumstance in which a road fatality is identified as a deliberate or intentional homicide, where both countries have deemed these as exclusions. However, in Australia there is a stipulation that includes deaths of innocent victims resulting from circumstances that are classified as ‘exclusions’, such as the scenario described in the previous section.

Consistently across all road fatality definitions, both international and domestic, deaths occurring within 30 days of the crash as a result of the injuries sustained from the crash are included and deaths determined as suicides are excluded. The US appears to be the only country that restricts the inclusion of deaths to crashes that occurred on public roadways.

⁶Organization for Economic Co-operation and Development. (2013). *Road Fatalities* (OECD Factbook 2013: Economic, Environmental and Social Statistics). Retrieved May 20, 2015 from <http://www.oecd-ilibrary.org/sites/factbook-2013-en/06/02/03/index.html?contentType=&itemId=/content/chapter/factbook-2013-50-en&containerItemId=/content/serial/18147364&accessItemIds=&mimeType=text/html>

⁷World Health Organization. (2009). *Global Status Report on Road Safety*. Retrieved May 20, 2015 from <http://www.un.org/ar/roadsafety/pdf/roadsafetyreport.pdf>

⁸ Email correspondence with Dr. Matts-Åke Belin, Project Manager Vision Zero Academy, Swedish Transport Administration. May 20, 2015.

⁹Queensland Government. (2012). *2011 Fatal Road Traffic Crashes in Queensland: A report on the road toll* (Transport and Main Roads). Retrieved May 20, 2015 from http://www.tmr.qld.gov.au/~media/Safety/Transport%20and%20road%20statistics/Road%20safety/Fatal_road_traffic_crashes_in_qld_2011.pdf



As the widely accepted '30-day international definition' reads, **any** road fatalities resulting from a traffic crash would be tallied, which would capture both intentional and unintentional deaths that fall under the category of homicide.