# Supplementary Online Content

This supplementary material has been provided by the authors to give readers additional information about their work.

| eTable1. Annual Case-Fatality Percentage (95% CI) by Mechanism, Ages 15 Years and Older | | | |
|---|---|---|---|
| Year | Occupant Motor Vehicle Crash | Firearm Assault | Firearm Suicide | Unintentional Firearm Injury |
| 2003 | 5.5 (4.8, 6.3) | 12.3 (10.4, 14.5) | 43.7 (38.3, 49.4) | 1.9 (1.4, 2.5) |
| 2004 | 5.2 (4.3, 6.2) | 9.0 (5.9, 13.6) | 38.6 (31.8, 45.9) | 4.4 (2.2, 8.5) |
| 2005 | 4.2 (3.6, 4.9) | 12.6 (9.4, 16.9) | 46.5 (41.0, 52.2) | 3.3 (1.8, 5.9) |
| 2006 | 4.0 (3.6, 4.6) | 14.4 (11.9, 17.4) | 40.8 (33.4, 48.6) | 2.9 (1.6, 5.5) |
| 2007 | 4.7 (4.1, 5.3) | 12.9 (11.3, 14.6) | 49.4 (40.0, 58.8) | 3.2 (2.0, 5.1) |
| 2008 | 4.8 (4.3, 5.2) | 12.6 (10.4, 15.3) | 41.1 (37.1, 45.9) | 2.4 (1.3, 4.2) |
| 2009 | 4.2 (3.7, 4.8) | 10.4 (8.9, 12.1) | 40.5 (37.8, 43.3) | 3.2 (1.9, 5.2) |
| 2010 | 3.6 (3.0, 4.2) | 9.8 (6.9, 13.8) | 47.3 (44.1, 50.4) | 2.4 (1.5, 4.0) |
| 2011 | 3.9 (3.3, 3.6) | 10.9 (7.9, 14.9) | 47.4 (42.5, 52.3) | 9.8 (8.8, 11.0) |
| 2012 | 4.1 (3.7, 4.6) | 11.9 (9.3, 15.3) | 43.6 (40.1, 47.2) | 2.0 (1.2, 3.4) |
| 2013 | 2.6 (2.3, 3.0) | 4.7 (3.6, 6.1) | 29.2 (24.7, 34.2) | 1.2 (0.6, 2.3) |

**eTable 2. Survey Weighted Total Deaths, Injuries, and Case-Fatality by Mechanism and Age Group, 2003-2013, NTDB NSP**

| Mechanism | Deaths | Injuries | Case Fatality |
|---|---|---|---|
| | N (95% CI) | N (95% CI) | % (95% CI) |
| *Ages 15-34* | 31767 (26373, 37161) | 652972 (564308, 741637) | 4.9 (4.5, 5.3) |
| Occupant Motor Vehicle Crash | 17071 (14724, 19418) | 531663 (467154, 596171) | 3.2 (2.9, 3.6) |
| Assault with Firearm | 10660 (7382, 13938) | 102627 (72454, 132800) | 10.4 (9.8, 11.2) |
| Self-Inflicted Firearm | 3619 (3120, 4119) | 9826 (7997, 11655) | 37.2 (34.6, 39.8) |
| Unintentional Firearm | 417 (339, 494) | 8857 (7642, 10071) | 4.7 (4.1, 5.4) |
| *Ages 35-54* | 18270 (15497, 21044) | 385749 (334114, 437385) | 4.8 (4.4, 5.2) |
| Occupant Motor Vehicle Crash | 11552 (9814, 13291) | 347170 (302552, 391788) | 3.4 (3.0, 3.7) |
| Assault with Firearm | 3236 (2388, 4084) | 26014 (18668, 33361) | 12.5 (11.3, 13.8) |
| Self-Inflicted Firearm | 3412 (2993, 3831) | 8367 (6901, 9833) | 41.0 (38.4, 43.7) |
| Unintentional Firearm | 71 (35, 106) | 4198 (3450, 4946) | 1.7 (1.1, 2.7) |
| *Ages ≥55* | 24891 (21512, 28270) | 296323 (255902, 336744) | 8.5 (7.9, 9.3) |
| Occupant Motor Vehicle Crash | 20671 (17810, 23533) | 283164 (244536, 321792) | 7.4 (6.7, 8.2) |
| Assault with Firearm | 823 (679, 968) | 4648 (3396, 5900) | 17.9 (16.2, 19.8) |
| Self-Inflicted Firearm | 3342 (2737, 3947) | 6183 (5285, 7081) | 54.3 (50.1, 58.4) |
| Unintentional Firearm | 55 (32, 77) | 2327 (1874, 2781) | 2.4 (1.6, 3.5) |

| eTable 3. Annual Trends in Case-Fatality by Mechanism and ISS Category |||||
|---|---|---|---|---|
| ISS category | Occupant MVC | Firearm Assault | Self-inflicted Firearms | Unintentional Firearm Injury |
| 1-15 | -0.09 (-0.15, -0.03)*¥ | -0.16 (-0.41, 0.08)¥ | -0.52 (-1.04, -0.00)*¥ | -0.00 (-0.14, 0.13)¥ |
| 16-24 | -0.30 (-0.51, -0.009)*¥ | 0.58 (-0.26, 1.42)¥ | -1.36 (-2.59, -0.14)*¥ | 0.41 (-1.05, 1.87)¥ |
| 25-40 | -0.52 (-1.19, 0.15)¥ | -0.04 (-2.26, 2.17)¥ | -0.07 (-1.44, 1.29)¥ | 0.30 (-2.34, 2.94)¥ |
| 41-66 | -0.72 (-1.22, -0.21)*¥ | 0.04 (-2.84, 2.93)¥ | -0.87 (-4.19, 2.45)¥ | Insufficient observations** |
| 67-75 | -0.87 (-1.39. -0.35)* | 0.12 (-4.26, 4.51)¥ | -1.75 (-5.35, 1.86)¥ | -0.53 (-3.48, 2.43)¥ |
| All models are run as ordinary least squares with 2-year moving averages and tested against the Durbin-Watson statistic. Results from Prais-Winsten models are shown when the Durbin Watson statistic was <1.95 |||||
| *p<0.05 |||||
| ** Multiple years with no deaths and/or no injuries |||||
| ¥Prais-Winsten-Winsten Model |||||

**eTable 4. Sensitivity Analysis, Durbin-Watson Statistic and Annual Change in Case Fatality Percentage Overall and by Age-Groups (2003-2013) Using Prais-Winsten Method**

| Mechanism | Age Group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ages >=15 | | | 15-34 | | | 35-54 | | | >=55 | | |
| | | MA | No MA | | MA | No MA | | MA | No MA | | MA | No MA |
| | | Annual % Point Change (95%CI)** | | | Annual % Point Change (95%CI)** | | | Annual % Point Change (95%CI)** | | | Annual % Point Change (95%CI)** | |
| | DW**** | PW | PW | DW**** | PW | PW | DW**** | PW | PW | DW**** | PW | PW |
| Occupant Motor Vehicle Crash | 1.55 | -0.18 (-0.26, -0.10)* | -0.19 (-0.29, -0.08)* | 1.88 | -0.14 (-0.19, -0.08)* | -0.15 (-0.22, -0.07)* | 1.66 | -0.15 (-0.22, -0.08)* | -0.16 (-0.26, -0.07)* | 1.21 | -0.38 (-0.62, -0.15)* | -0.38 (-0.64, -0.11)* |
| Assault with Firearm | 1.29 | -0.28 (-0.68, 0.11) | -0.39 (-0.89, 0.12) | 1.3 | -0.32 (-0.70, 0.06) | -0.41 (-0.90, 0.07) | 1.36 | 0.13 (-0.24, 0.50) | 0.05 (-0.31, 0.43) | 1.95 | -1.04 (-2.11, 0.03) | -1.14 (-2.64, 0.36) |
| Self-Inflicted Firearm | 1.58 | -0.05 (-0.67, 0.58) | -0.29 (-1.31, 0.73) | 1.71 | 0.03 (-0.80, 0.86) | 0.06 (-1.02, 1.14) | 1.46 | -0.25 (-1.25, 0.74) | -0.24 (-1.47, 0.98) | 1.14 | -0.23 (-1.92, 1.46) | -0.80 (-3.00, 1.39) |
| Unintentional | 1. | 0.15 (- | 0.07 (- | 1. | 0.29 (- | 0.24 (- | 1. | -0.05 | -0.1 | 1. | -0.1 | -0.38 |

| Firearm | 75 | 0.14, 0.44) | 0.35, 0.49) | 78 | 0.20, 0.77) | 0.41, 0.90) | 55 | (-0.36, 0.26) | 6 (-0.50, 0.17) | 36 | 3 (-0.64, 0.38) | (-0.82, 0.05) |

*p<0.05

**Generalized Least Squares Estimator using Prais-Winsten method

***From ordinary least squares regression in main analysis using moving averages

MA = Moving Average

DW = Durbin-Watson Test Statistic

PW = Prais-Winsten

**eTable 5. Sensitivity Analysis, Durbin-Watson Statistic and Annual Change in Percentage of Out-of-Hospital Deaths by Mechanism (2003-2013)**

| | Included Deaths | | | | |
|---|---|---|---|---|---|
| | DOA, Home, Other | | Home, Other only | | |
| | Durbin-Watson Test Statistic*** | Prais-Winsten Annual % Point Change (95%CI)** | OLS Annual % Point Change (95% CI)** | Durbin-Watson Test Statistic | Prais-Winsten Annual % Point Change (95%CI)** |
| Occupant Motor Vehicle Crash | 1.47 | -0.22 (-0.44, 0.00) | 0.03 (-0.13, 0.20) | 1.27 | 0.07 (-0.14, 0.28) |
| Firearm Homicide | 1.06 | 0.11 (-0.25, 0.48) | 0.36 (0.10, 0.62)* | 1.24 | 0.36 (0.04, 0.69)* |
| Firearm Suicide | 1.43 | 0.06(-0.28, 0.40) | 0.20 (-0.06, 0.45) | 1.54 | 0.21 (-0.09, 0.50) |
| Unintentional Firearm Death | 1.37 | 0.56 (-0.06, 1.18) | 0.65 (0.16, 01.13)* | 1.62 | 0.63 (0.09, 1.16)* |
| *p<0.05 | | | | | |
| **Generalized Least Squares Estimator using Prais-Winsten-Winsten method | | | | | |
| ***From ordinary least squares regression in main analysis using moving averages | | | | | |