

Days of death: Injury mortality for NZ soldiers in WW1

May 2nd, 2014

Department of Public Health seminar

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Thomson G, Wilson N, Summers J, Baker M, Harper G. Fatal injury among New Zealand WW1 military personnel. Department of Public Health Seminar University of Otago, Wellington, 11 April 2014 (Also presentation to the Conference: "Rethinking War - Is there anything new that can be said about the First World War?" Wellington, Stout Centre, Victoria University of Wellington, 28-30 November 2013).



John Singer Sargent: *Gassed*

Aim

- To explore aspects of injury-related mortality amongst NZ military forces for WW1



Fatal injuries: Background

- Fatal war injury is one of the most effective and measurable indicators of the effect of war
- Most war injury epidemiology is about particular injuries, rather than deaths

Advanced dressing station, Messines

Alexander Turnbull Library Reference: 1/2-012773-G



Methods

(for detail see Wilson et al. *NZMJ* Nov 1, 2013)

- Mortality data from Roll of Honour electronic database for NZ military personnel, for **July 1914 – November 1918**:
 - Extracted **date, cause, place, ethnicity, rank, unit**
- Cenotaph database: Numbers of NZ personnel in the Northern Hemisphere each year were used to calculate annual mortality risk
- Coded for Māori, Pacific, European/other: sample of 1000

Soldier With Facial Wounds
Henry Tonks



Results: Base population at risk

- 100,444 embarked for service overseas
- Average age on-board 27 years

Soldiers in NZ 1916



Results: Total injury deaths 1914-18

- 15% of those who served overseas died of injury
- 14,946 deaths from injury: 90% of all NZ service deaths to 11 November 1918
 - 10,870 killed in action
 - 3903 died of wounds
 - 109 by ‘accident’
 - 57 drowned

Somme

2nd Battalion, Auckland Regiment: near Flers,
September 1916, after the Battle of Flers-Courcelette.
Alexander Turnbull Library ; Reference: 1/2-066895-F



Some context for the deaths



The injury deaths were:

- **1.5%** of the NZ population in the 1916 census
- Total NZ war deaths were **5%** of the male population aged 15-49 (compared to 11% for Scotland, 14% for France, **22%** for Serbia)

Niall Ferguson, *The pity of war*. London: Penguin, 1999, p. 299

Results: Injury deaths by ethnicity

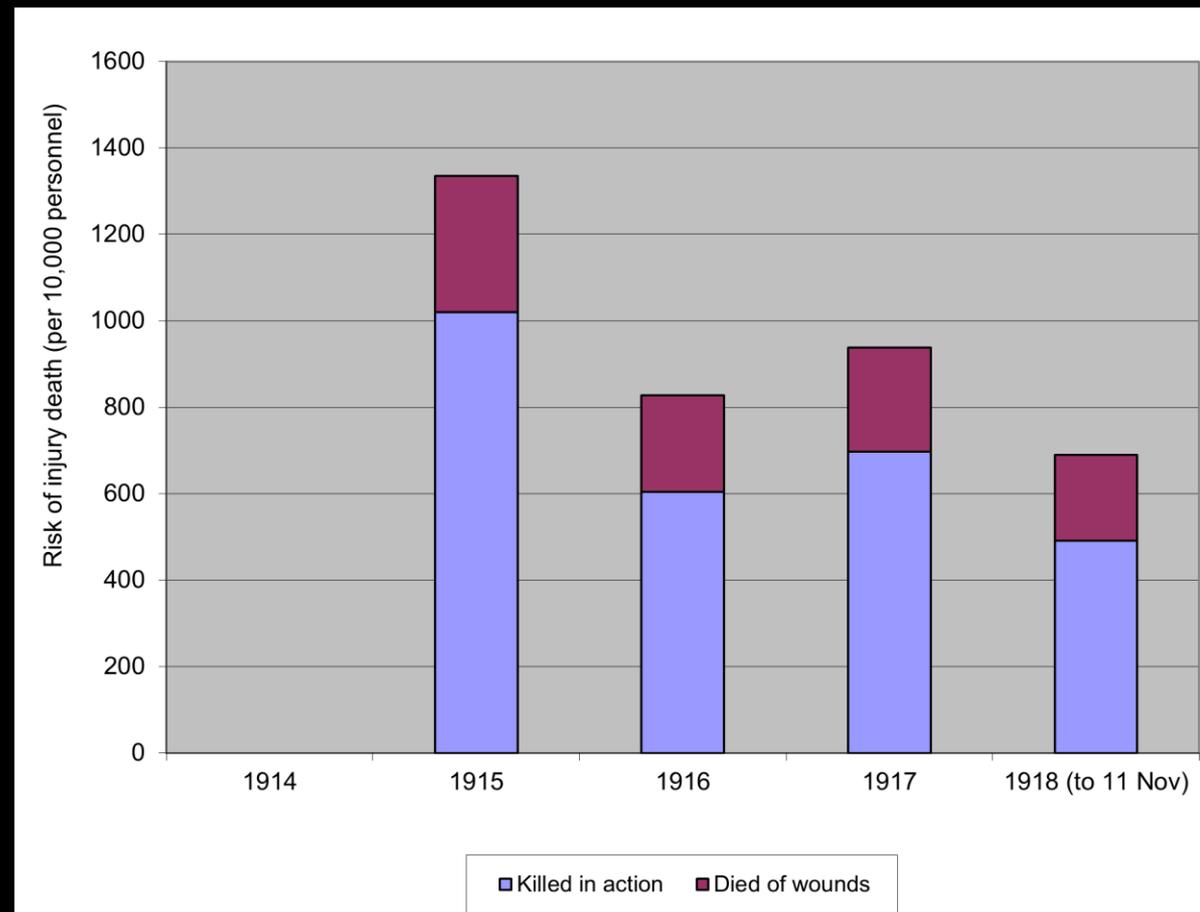
- 15% of European/other died from injury: 14762 deaths
- 11% of Māori: 179 deaths (plus another 11% by disease)
- 1% of Pacific: 10 deaths (plus another 7% by disease)

*Shell-Shattered Area of
Chateau Wood, Flanders*
Frank Hurley, 1917

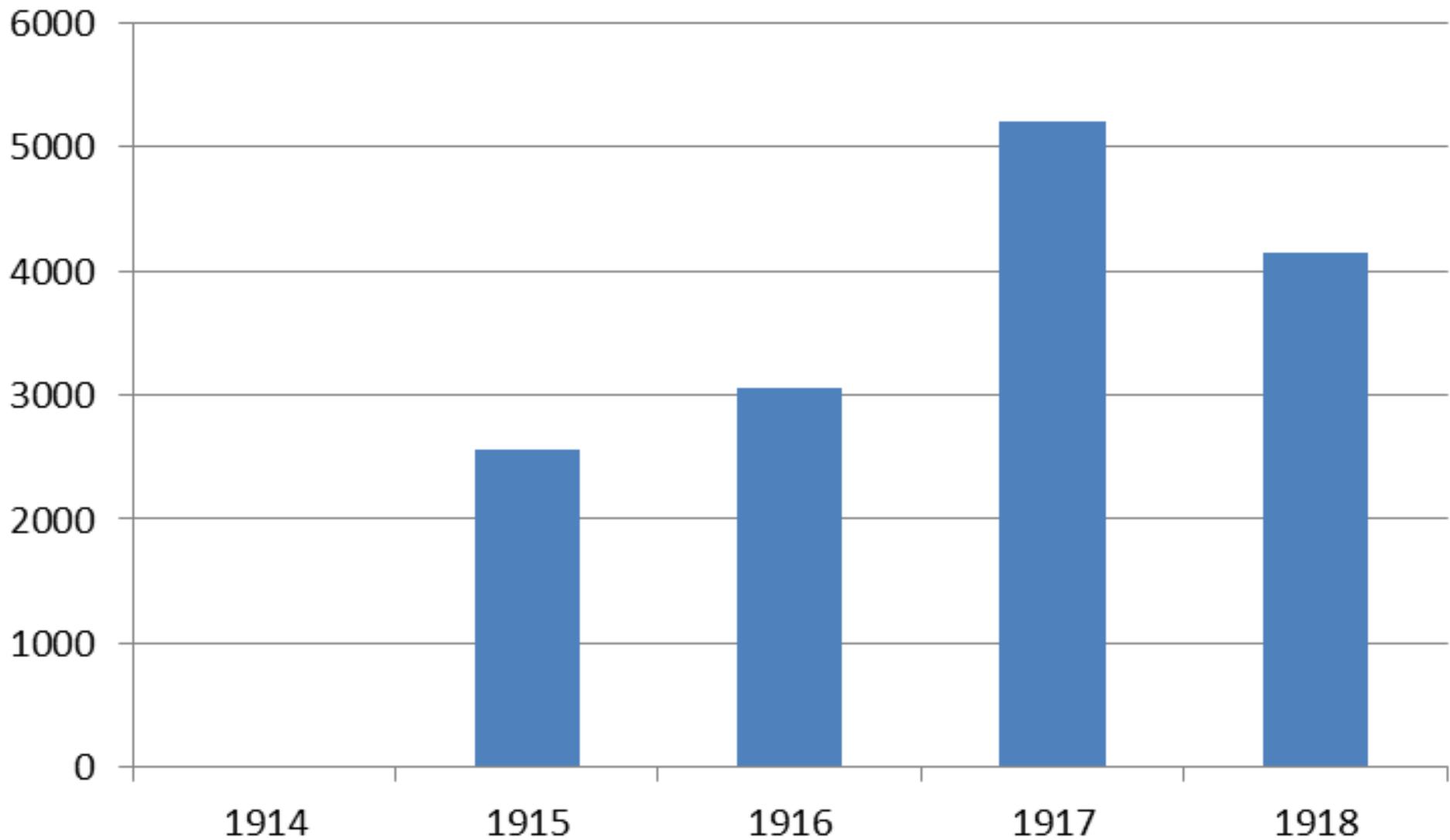


Results: Annual risk of injury death

- Highest annual *risk* of injury death in 1915 (13%)



Results: Annual deaths

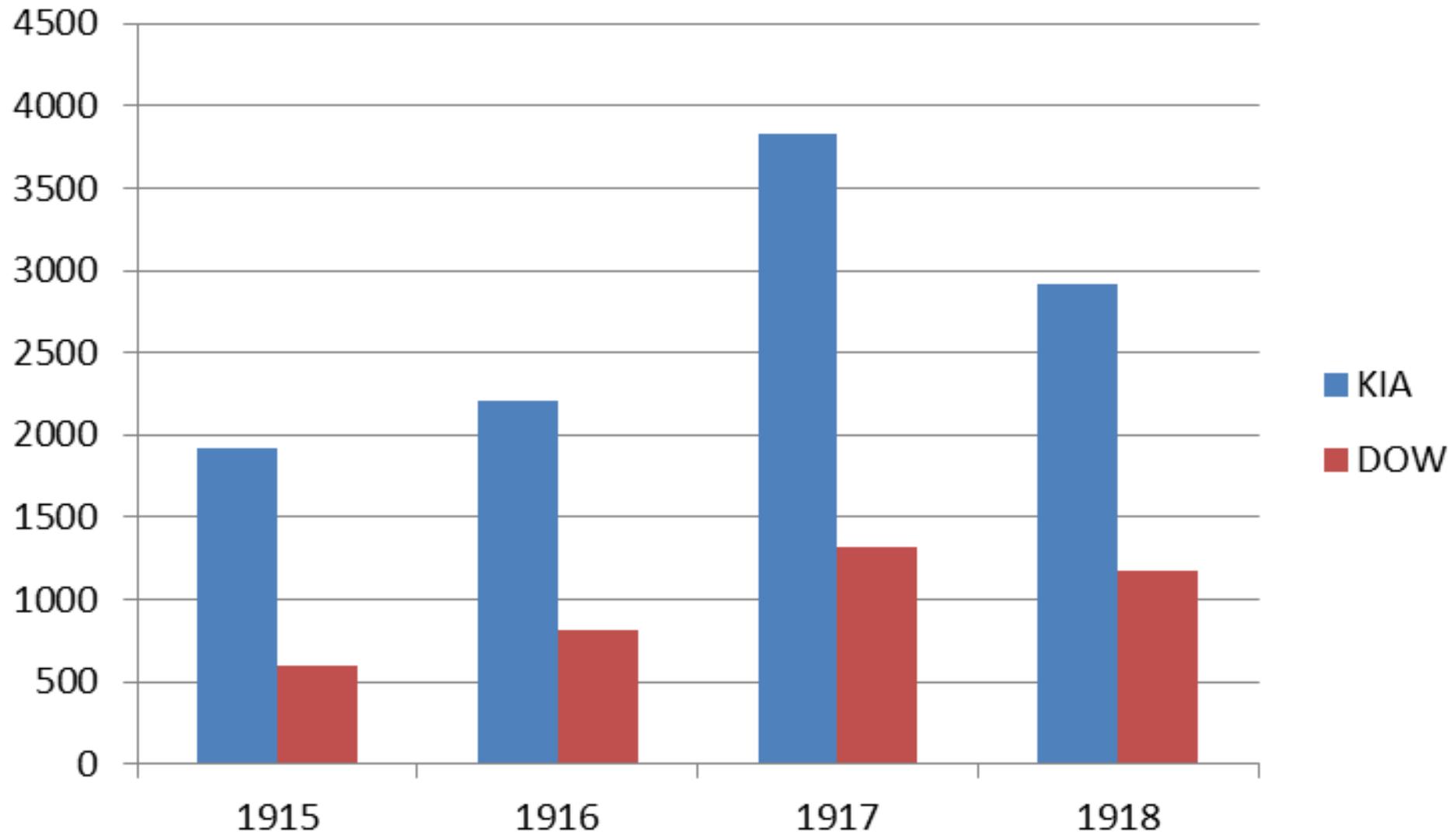






Results: Annual cause of death

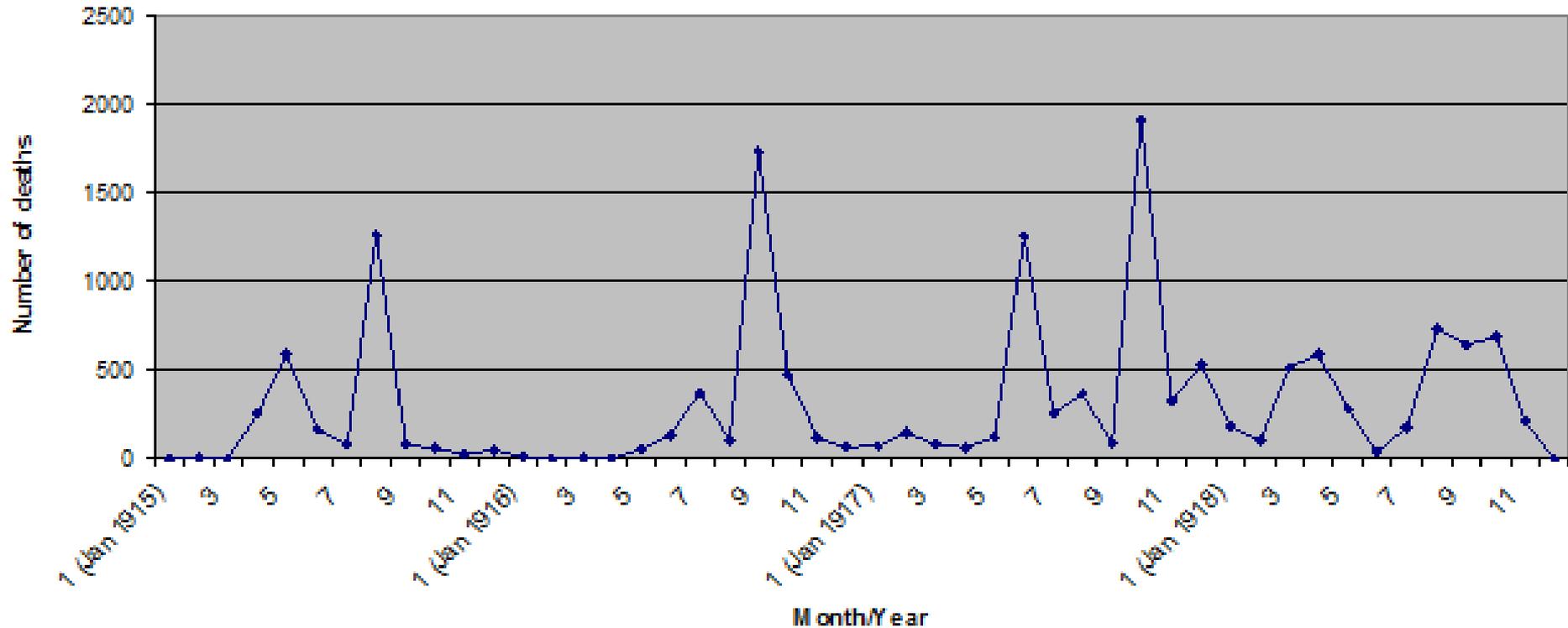
Peak proportion who Died of Wounds [DOW] in 1918 at 29%





George Edmund Butler *Stretcher party* November 1918

Results: Monthly pattern of injury death

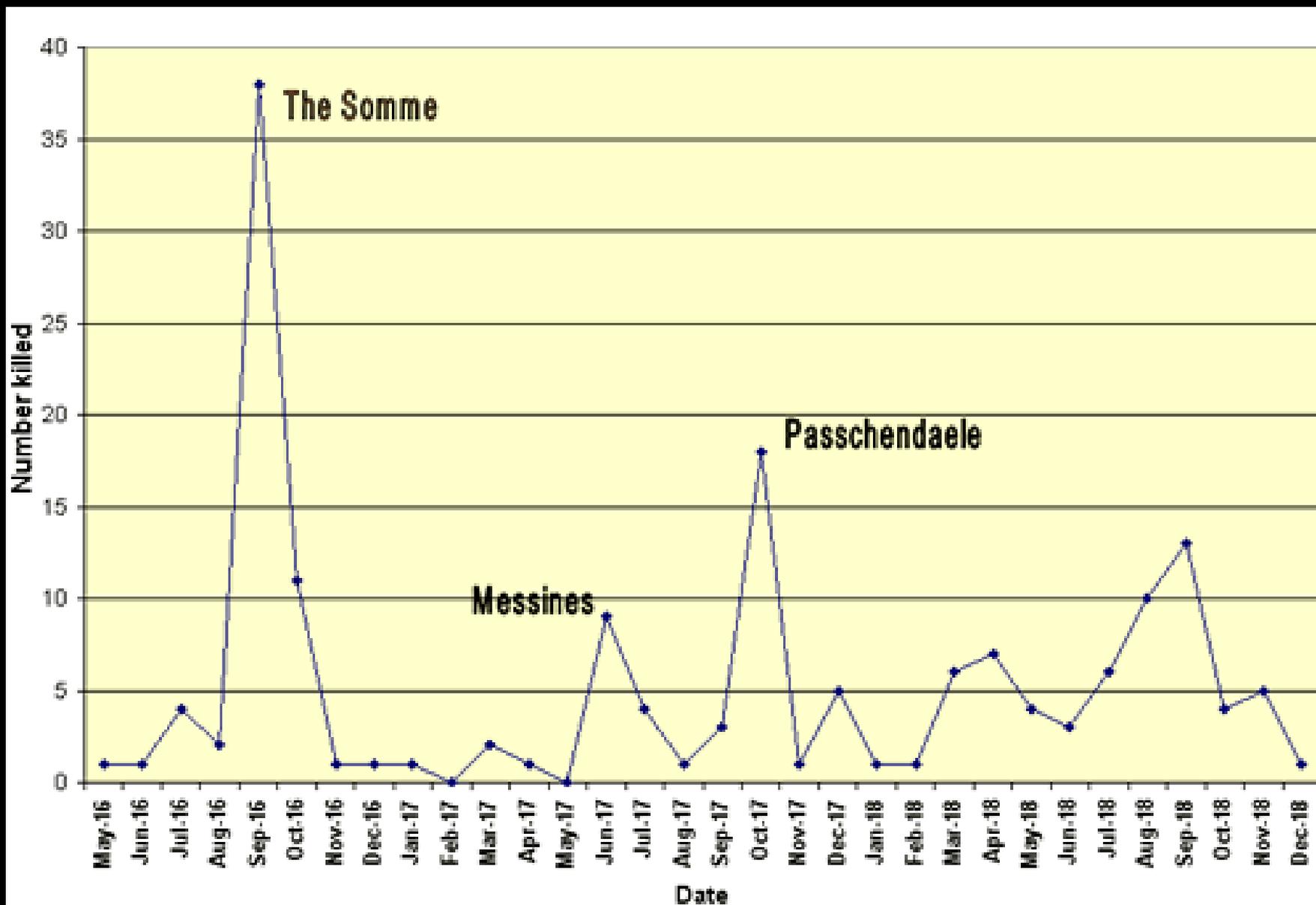


Months or groups of months with over 1000 deaths (18 months with over 200 deaths):

1. **Gallipoli** allied offensive (August 1915)
2. **Somme** offensive (Flers–Courselette - 607 dead on 15 September, 1916)
3. Battle of **Messines** (June 1917)
4. Battle of **Passchendaele** (October 1917)
- 5,6 March-April 1918 (**Arras, Ancre**) & August-October 1918 (**Albert, Bapaume, Havrincourt, Cambrai**)



Monthly deaths 1916-18: Wgtn College Old Boys





George Edmund Butler, *Fight at quarry outside Bapaume*, August 1918

Location of deaths

From cemeteries/ Memorials



France	7207	48%
Belgium	4588	31%
Ottoman Empire (Gallipoli & Palestine)	2495	17%
Egypt	278	2%
UK	193	1%



ENGLAND

Strait of Dover

Ypres

BRUSSELS

BELGIUM

Armentières

Lille

Fromelles

German held

Arras

Cambrai

Bapaume

Pozières

Albert

Amiens

Péronne

FRANCE

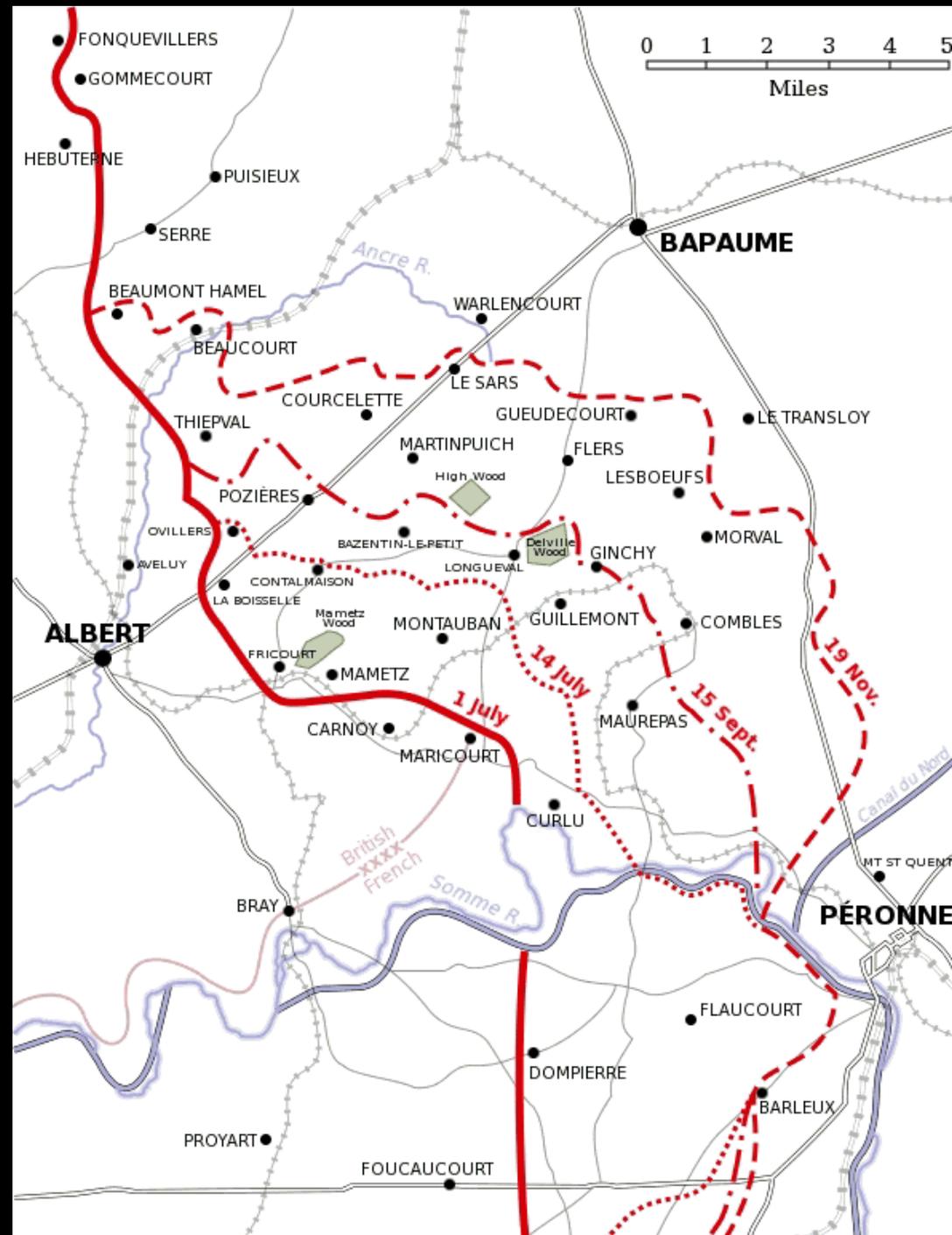
Compiègne

Aisne

Rheims

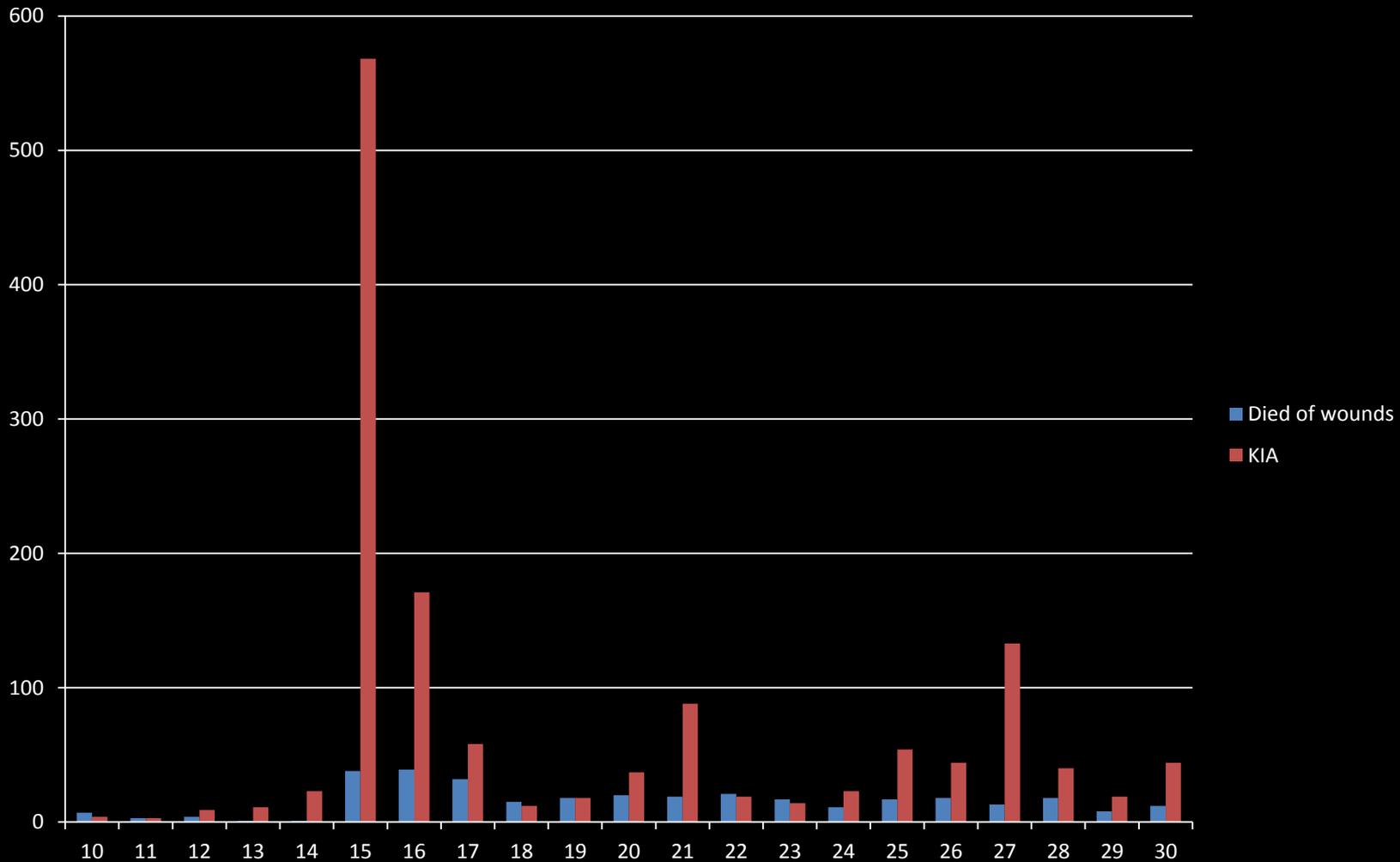
Somme 1916

- Note scale and distance between 15 Sept -19 Nov front lines
- Note NZ 1918 battles: Ancre, Albert, Bapaume



NZ daily deaths: Somme 1916

Number
of
deaths



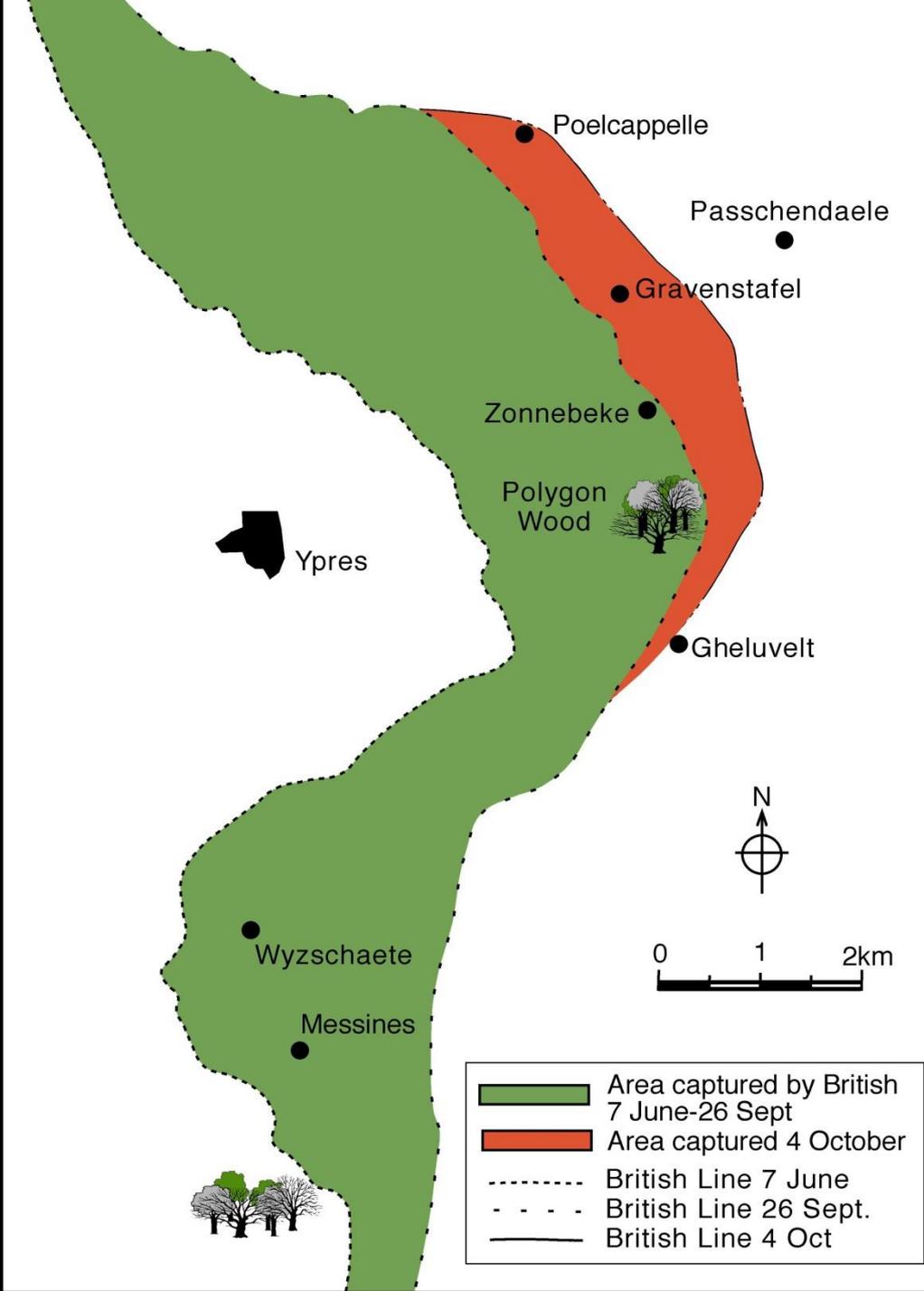
Day of September 1916



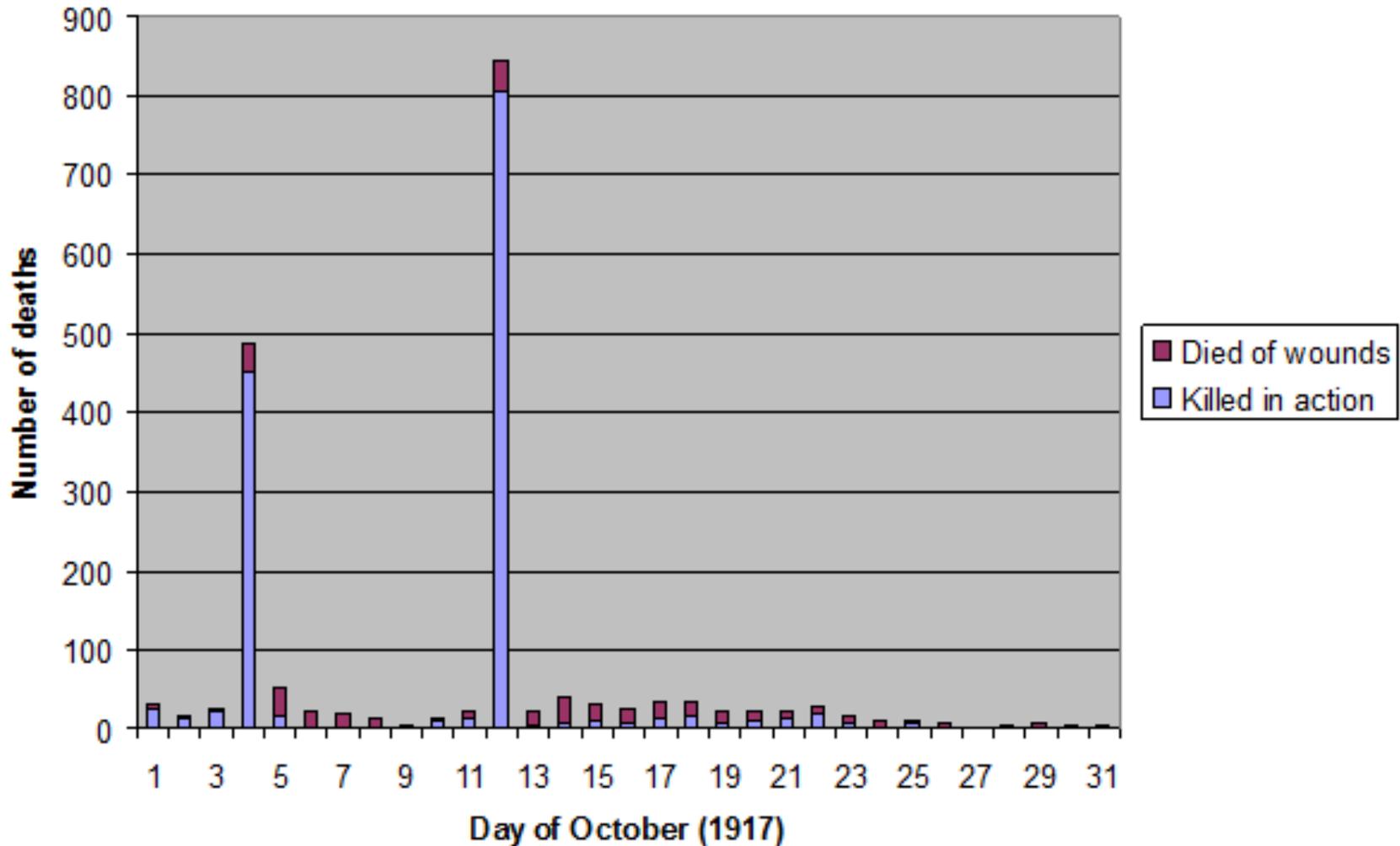
Mametz, Western Front Frank Crozier
Rear area of Anzac Corps, winter of 1916-17, towards the end of the Battle of the Somme

Messines Passchendaele June, October, December 1917

Note scale



NZ daily deaths, October 1917



October 4th: Battle of Gravenstafel Spur; **October 12th**: Battle of Passchendaele



George Edmund Butler *The Crucifix, Polygon Wood*

Discussion

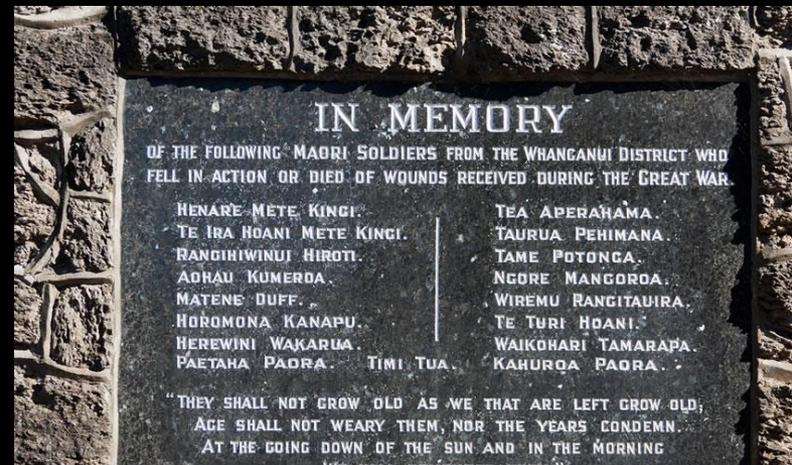
NZ WWI

- Higher number of injury deaths than for:
 - all causes in WW2 (~11,600 deaths)
 - NZ 1918 pandemic flu (~8600 deaths)
- Much greater injury than disease death toll: (diseases deaths 1297- 8% of all causes), compared to US Civil War, or South African War



Study strengths/limitations

- Conservative injury death numbers
- Limiting the analysis to the end of the war has excluded the 1604 further service deaths to December 1923, some of which may have been from war injuries
- Lack of age, rank denominators
- Lack of rain, mud data





Eric Kennington: *Gassed and Wounded* 1918

Prevention of war?

Can NZ war deaths be reduced or NZ wars reduced?

- *If there is war*
 - who runs it
 - who fights
 - who dies
- ‘Solutions’
 - civilianisation
 - remote control

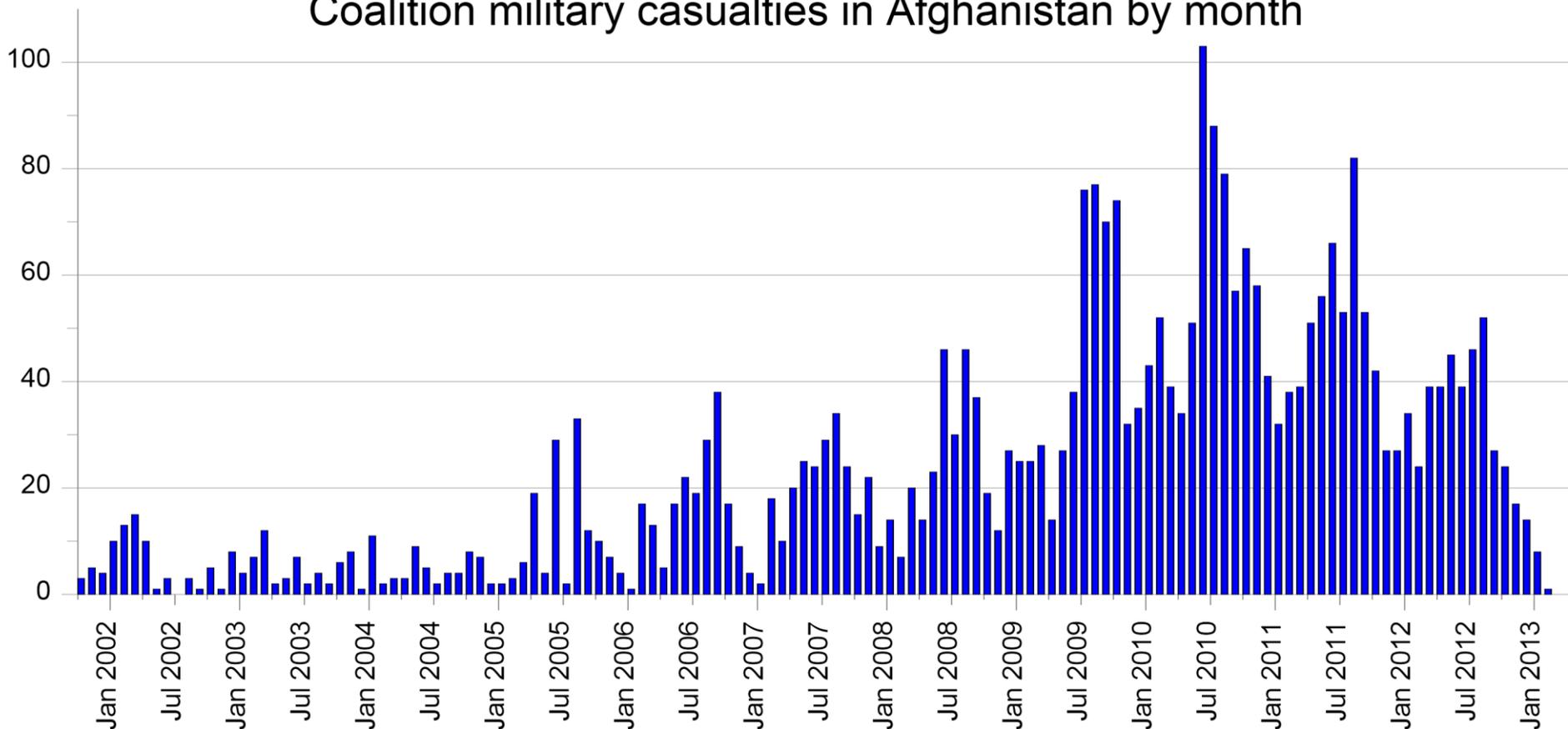


'Coalition' casualties in Afghanistan 2002-2012

As of 2 August 2013, there had been 3,274 'coalition' deaths in Afghanistan

<http://icasualties.org/oef/>

Coalition military casualties in Afghanistan by month



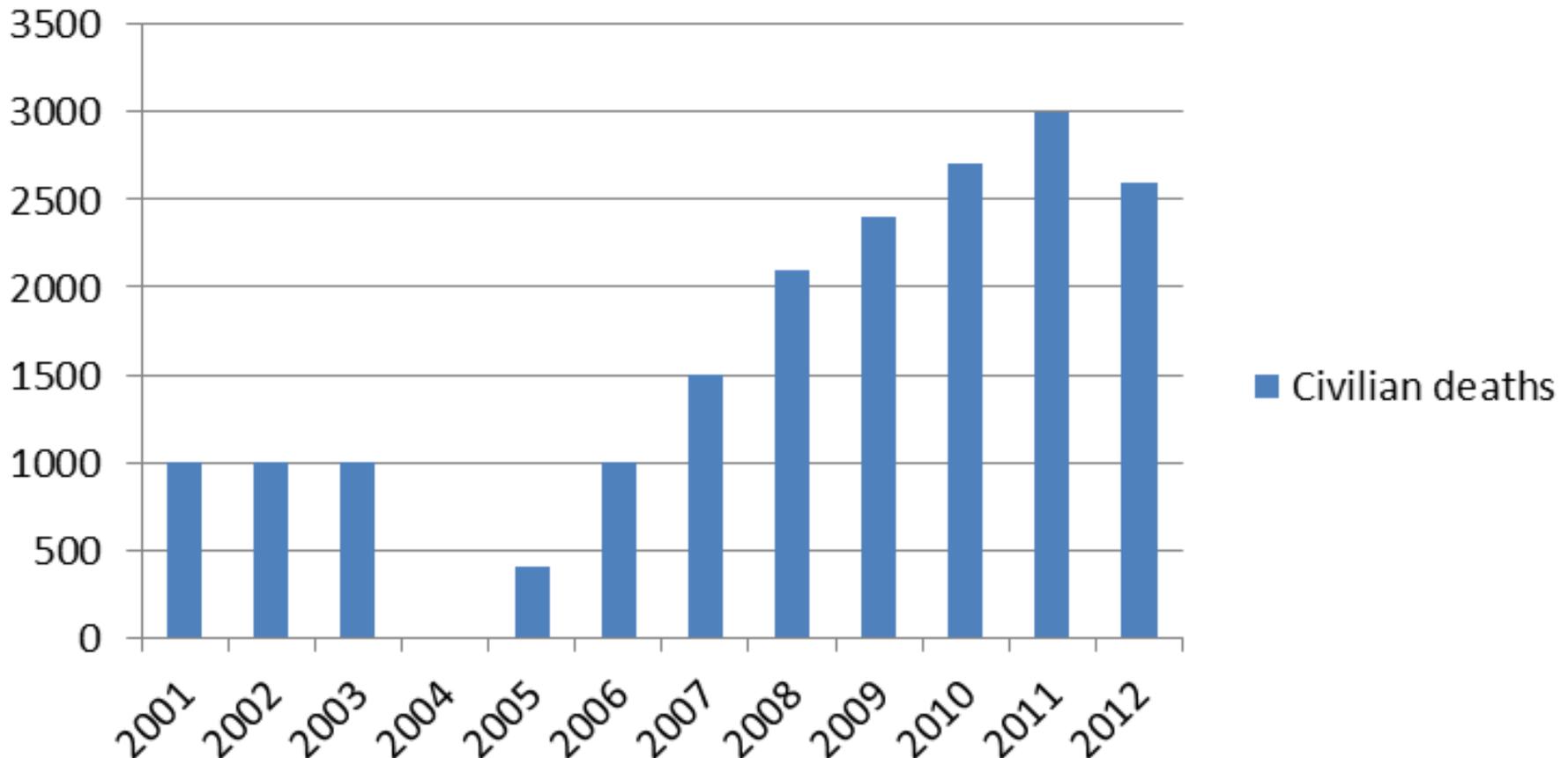
Estimated minimum civilian war deaths in Afghanistan 2001-2012

Minimum 22,700 civilian deaths during 2001-2012

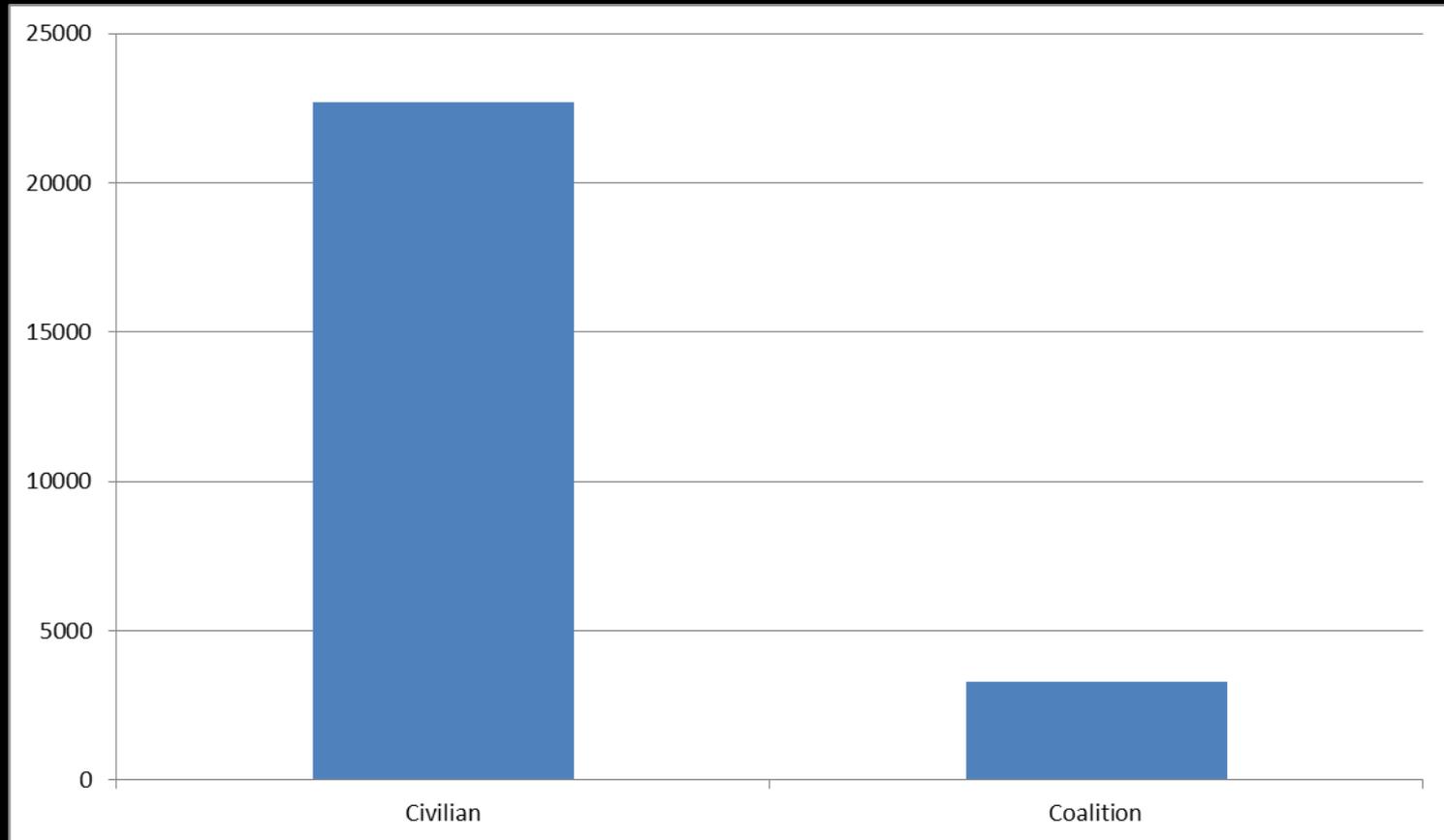
Marc Herold's <http://pubpages.unh.edu/~mwherold/AfghanDailyCount.pdf>

<http://www.hrw.org/reports/2008/09/08/troops-contact-0> and UN Assistance Mission Afghanistan (UNAMA)

Civilian deaths



Civilian and Coalition war deaths in Afghanistan: 2001-2012



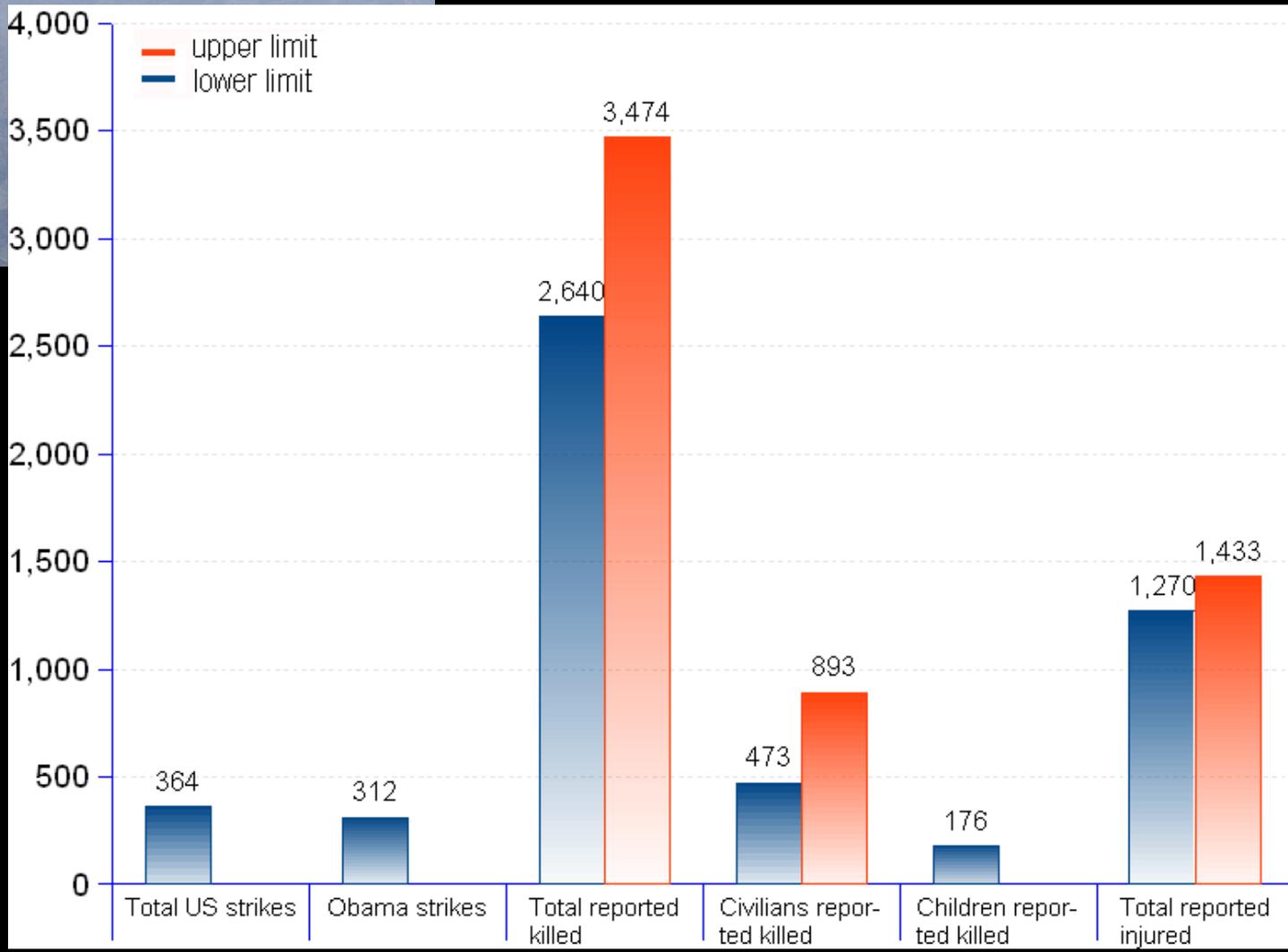


Remote control war

Drone strike casualties

in Pakistan

2004-2012



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