

Karolinska Institutet  
Department of Public Health Sciences  
Division of Social Medicine  
Norrbacka, 2<sup>nd</sup> Floor  
SE-171 76 Stockholm  
Sweden



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K A R O L I N S K A I N S T I T U T E T

## **Dr. Ime Akpan John**



### **Curriculum Vitae**

Ime Akpan John is a general practice physician, had his undergraduate training at Jos, Nigeria and Lund, Sweden. He had been in the campaign against war under the auspices of the International Physicians for the Prevention of Nuclear War, 1985, Nobel Peace Prize Recipient, where he leads the African region of the group. Dr. John is currently member of the research group on Cross-Cultural Injury Epidemiology led by Professor Marcello Ferrada-Noli.

Dr. John's current research studies at Karolinska Institutet, Stockholm, is on Epidemiological bias in assessment of war-related injuries during Iraq war, which earn him master in Safety Promotion. He intends to continue the research on "war-related injuries, prevalence of physical trauma and psycho traumatic sequelae".

ime-akpan.john.5949@student.ki.se

# Epidemiological Bias in Assessment of War-Related Injuries During Iraq War

Between 20<sup>th</sup> March 2003 To 20<sup>th</sup> March 2004

Thesis defence: Ime Akpan John, MD

Supervisor: Prof. Dr. Marcello Ferrada-Noli

## Contents

Abstract .....	55
Objective.....	56
Concepts and Definitions .....	56
Background of the War Scenario .....	56
Background of War Injuries and Fatalities in Iraq War .....	58
Methodology .....	58
Results .....	59
Coalition Forces Monthly Fatalities .....	59
Key .....	60
Injuries Reported by Agencies .....	60
Discussion .....	62
Limitation of Research Sources .....	63
Suggestions for Future Research .....	63
Conclusion .....	63
Queries .....	64
References .....	64

## Abstract<sup>1</sup>

During the period under review, 3,203 members of USA forces were wounded (CENTCOM 2004). Also, over 13,579 of the coalition forces were injured out of which 681 were fatal (Lunaville 2004). Iraqi civilians killed were between 8,230-10,000 while 25,000 were wounded (IBC 2004). This does not take into account detail reporting of the Iraqi combatants, nor specifically, the civilian casualties.

Publicised reports on fatal injuries caused by war and the armed conflicts in the aftermath of the invasion of coalition forces in Iraq are mainly focused on the so called body-counting i.e. victims as the result of direct armed engagement. Official statistics from coalition sources may as well report separately own casualties amid non-combatant circumstances, such as accidental fatalities.

However, two main flaws may be observed in several official reports. One is the absence of reporting of Iraqi combatant casualties. The other is the reporting of Iraqi civil casualties even if not directly war-related.

This poses a nosological and methodological problem related to main epidemiological parameters, namely, measurements of incidence and prevalence in the international statistics of war-related causes of death.

The present study analysed the reporting of war-related injuries and violent deaths during the Iraqi conflict 20<sup>th</sup> March 2003 – 20<sup>th</sup> March 2004, with particular focus on epidemiologic-methodological issues pertinent to recording and reporting of incidence of war-related fatalities. No significant statistical variation was observed in the data reported by Agencies assessed.



Map of Iraq

<sup>1</sup> The abstract, authored by M. Ferrada-Noli, Ime A. John & L. Svanström, was accepted for presentation at the 7<sup>th</sup> World conference on Injury Prevention and Safety Promotion. Vienna, Austria, 2004. Some of the findings in this thesis also contributed to the Vienna presentation.

## Objective

The principal aim of this investigation was to assess the possible differences in the reporting of injuries as the result of the Iraq war during the period of 20<sup>th</sup> March 2003–20<sup>th</sup> March 2004, and to provide a possible explanation of such a difference.

## Concepts and Definitions

The investigation is concerned with epidemiological nosology to the extent that aims to clarify conceptualizations on the items below.

**Fatalities:** – Online medical dictionary defines fatality as a condition or disaster that terminates in death. In this context, injuries as the result of combat or non-combat scenario that ends in the death of the victim.

**Casualties:** – The same source above, defines casualty as injury or the victim of an accident, (<http://cancerweb.ncl.ac.uk/cgi-bin/omd?query=casualties>) irrespective of the outcome.

**War-related injury:** – ICD-10 in section Y36.0 classifies war related injuries as caused by operations of war, which is sub classified based on the type of warfare, include biological, nuclear, injuries after cessation of hostilities etc.

Epidemiological bias;

We regard epidemiological bias of those who systematically may confound the gathering and alter analysis of epidemiological data on the basis of objective or subjective factors. Objective factors are related to the phenomena under the observation or its sources of information. While, subjective bias relates to the process of gathering data, with limitations in the observer or of the instruments employed.

**Antiwar. COM:** United States of American based team that maintains principle of non-interventionism as paramount to freedom

**BBC:** British Broadcasting Corporation

**CENTCOM:** The United States Central Command

**CIA:** Central Intelligence Agency

**CNN:** Cable News Network. United States of American based TV channel. Also, referred to as CNN International.

**IBC:** Iraq body Count project. An independent Research group with comprehensive public database of civilian casualties in Iraq.

**Lunaville:** A team of independent monitors that report the Coalition casualties.

**UN:** United Nations

**UNICEF:** United Nations Children Fund

## Background of the War Scenario

As widely known, armed conflicts results in decimation of human lives and resources of the parties involved. The impact on the civil population of such conflicts has increased in the late years according to MEDACT, a British charity. The Iraq war is not exception of this and 'Operation Iraq Freedom' and its respective counterpart resistance has claimed

many lives and injured several thousands since its inception on 20th of March 2003. Apart from injuries, the health care system of Iraq has notably weakened by this war. Physical health affected includes disability, infectious diseases, still births, under weight of newborn, malnutrition (MEDACT 2003). During the 1st Gulf war, UNICEF observed the rise in moderate to severe malnutrition in children under five years of age. (Levy and Sidel 2001). The same edition reported over 500,000 children died during that war. Also, affected is the mental health of the people.

In addition to health, the war affects the Country's infrastructures, airports, roads, hospitals, offices, and the environments. Shortage of basic needs such, water, food and energy resources leading to epidemics diseases that may result in more deaths.

It has been acknowledged that difficulties in injury data collection during war have provided loopholes for manipulation and introduction of biases. (WHO 2002). Five years of war in the Democratic Republic of Congo resulted in the death of between 2.5 million and 3.3 million and some reports may have different figures. (WHO 2002, BBC 2003a). Also, the Rwanda genocide claimed 750,000 to 1.0 million lives in 1994. (The family 1997-2001, WHO 2002). The Third Balkan war 1991-1995 claimed over 250,000 lives. The Russian/Chechnya war of 1994-96 claimed an estimated 18,000-100,000 lives.

The second coalition war on Iraq commenced on 20<sup>th</sup> March 2003 led by coalition of United States of America and United Kingdom. By the following day, 21<sup>st</sup> March, the Coalition forces recorded 14 deaths, 8 Britons and 6 United States. (Lunaville, 2003). Iraq Body Count (IBC) reports 53 to 80 Iraqi civilians were killed in the first two days of bombings. Little is known of the Iraqi soldiers. (IBC, 2003).

Iraq is strategically located on Shatt al Arab waterway and at the head of the Persian Gulf. Shares borders with Iran to the east, Turkey, north, Jordan, and Syria west, Saudi Arabia to the south and Kuwait, southeast. (See Map on page 55)

The history of modern Iraq dates back to the Ottoman's empire. It was occupied by Britain during the First World War. She became independence as a kingdom in 1932 and by 1958, was proclaimed a republic. Several leaders of which Saddam Hussein was the last have ruled Iraq.

Iraq has a population of 24,683,313 by July 2003 est. (CIA, 2003). About half of which is less than 18 years of age. (UNICEF 2003)

UN Security Council resolutions 687 (1991) of 3 April 1991, 1284 (1999) of 17 December 1999, and 1441 (2002) of 8 November 2002 (BBC 2003b) demanded that Iraq scraps all weapons of mass destruction and long-range missiles and allow UN verification inspections at the aftermath of her withdrawal from Kuwait.

Before this present war, Iraq had experienced two major wars (Iran-Iraq, 1980-88 and the Kuwait war Jan-Feb 1991), plus more than a decade of economic sanctions. As a result, the country's economy, infrastructure, environment, health care system, and other social indicators all deteriorated sharply. Iraq also assumed a heavy debt burden, possibly as high as \$116 billion if debts to Gulf States and Russia are counted, and even more if \$200 billion in reparations payments stemming from Iraq's 1990 invasion of Kuwait are included. (Energy Information Administration 2003).

Since the collapse of Saddam Hussein's regime, the streets of Baghdad have been overrun with homeless children, many of them hungry and addicted to drugs. Aid workers say closed and weapon-laden schools, looting of orphanages and woeful infrastructure – including a lack of electricity, running water and other basic services – have significantly worsened the problem – The new Iraq (CNN 2003)

War, has been documented as a stressor that induces several psychiatric conditions that may motivate suicidal behaviours and suicides in war veterans (Stimpson et al 2003; Drescher et al 2003; Magis 2003; Oquendo et al 2003; Spooner 2002; Begic & Jokic-Begic 2001). The war zones specifically may induce PTSD symptoms (Fontana et al 1992). Beaumont 2004 reports that Posttraumatic stress disorders (PTSD) affects 20% of the US soldiers in Iraq

and predisposes them to a higher risk of suicide, even after the combat had ended. About 1,000 US soldiers were evacuated to Landstuhl Regional Medical Centre in Germany for psychiatric or behavioural health conditions during this war (Benjamin 2004).

Late reports claiming the use of torture and maltreatment of prisoners may also have a post injury sequelae affecting the mental health of the tortured victims. In a study of (Ferrada-Noli et al 1998), torture experiences are associated with a heightening of suicidal behaviour and also characteristics of the suicidal methods involved in association with the methods of specific tortures.

Different factors may also complicate the suicide rate among Iraqi citizens. These could range from Posttraumatic stress disorder to low socio-economic status orchestrated by the war and occupation by coalition forces. Several socio-economic hypotheses on the suicide incidences have been contested by studies elsewhere (Ferrada-Noli 1999).

Oncology researches in Basra, Iraq showed that the coalition forces dropped over 800 tons of Depleted uranium, out of which 300tons were dropped in Basra (Al-Ali 2004). Increases in rate of malignancies were noticed over 10 years, after the first gulf war. Another long-term effect of this present war will therefore be a rise in morbidity and mortality from cancers and congenital anomalies.

## Background of the War-Related Injuries and Fatalities in the Iraq War

Globally, injuries from violence including war resulted in the death of 1,851,000 people in 1990 of which an estimated 502,000 deaths were war related (Reza et al 2001).

President George Bush of United States announced the reason for the unilateral pre-emptive attack on Iraq on 28<sup>th</sup> January 2003 during the State of Union address. (White House news release 20030128-19) The address quotes an alleged intelligence report that Iraq was developing weapons of mass destruction (WMD) with threats of jeopardising US National security through sponsorship of terrorists' networks such as Al-Qaeda. However, different inspection teams have proved that no such weapons were found.

The war code-named, operation 'Iraq freedom' has claimed thousand of lives of Iraqi and hundreds of the coalition forces. Also, it has recorded higher casualties compared to the first gulf war. US military casualties were 219 in the later (Helmkamp 1994). November 2003 recorded heavy dead toll (Graham, 2003). Over 15,000 Iraqis were killed in the first days of Coalition invasion; among the victims were 4,300 civilian non-combatants (Goldenberg 2003). It is also predicted that an estimate of 22,000 to 55,000 lives will be lost in this war. (MEDACT 2003).

It was also reported that the UK Gulf war I veterans had more ill health that resulted in death several years after the war. (Macfarlane et al 2000).

## Methodology

The data and information were gathered from web sites including that of the United States Central Command (CENTCOM), as well as independent research agencies.

Method adopted by some news agencies was to obtain injury data from the US government through the US Central command. However, Agencies such as Iraq body count (IBC) and the Antiwar.com also referred to, as Antiwar in this paper were independent of the Government source.

IBC review surveys, pooling data from several online media. When the media have differences in the data, editors present the range after a thorough review.

Antiwar, is one of the projects of Randolph Bourne Institute whose philosophy is based on non-interventionism. They collate the injury data independently with the view of disseminating accurate news, which encourages peace to the global audience.

Lunaville, a USA based independent research team, focuses on coalition casualties' reports. To the best of our knowledge, this agency was the only Agency that had details of coalition casualties stratified by months. Also, Lunaville keeps names and country of coalition casualty including the exact day and events/circumstance that led to the injury. The casualty data are published after confirmation from CENTCOM.

CNN is Cable News Network. United States of American based TV channel that is equally on the Internet. It has a huge resource of professional journalist of excellent repute. This agency has a dedicated website for the war in Iraq. It keeps record of US casualties after confirmation from CENTCOM.

The data were presented in graphs, tables and bar charts. The report of Antiwar, CNN and IBC were highlighted in a chart since they reported most of the casualties except the number of Iraqi military wounded.

## Results

### Coalition Forces Monthly Fatalities

Casualties among the Coalition forces recorded 92 deaths in the first month of hostilities, which later dropped in May and June 2003. (Table 1). Death toll peaked in November with 110 when the coalition stepped up offensive against the insurgency. The total coalition fatality within one year of engagement was 681.

**Table 1. Coalition military fatalities by month (Lunaville. org 2004)**

Period/months	US	UK	Others	Total
March 2003	65	27	0	92
April 2003	73	6	0	79
May 2003	37	4	0	41
June 2003	30	6	0	36
July 2003	47	1	0	48
August 2003	35	6	2	43
September 2003	31	1	1	33
October 2003	42	1	2	45
November 2003	82	1	27	110
December 2003	40	0	8	48
January 2004	45	5	0	50
February 2004	20	1	2	23
March 2004	33	0	0	33
Total	580	59	42	681

A graphic representation of table 1 is seen in Figure 1 below,

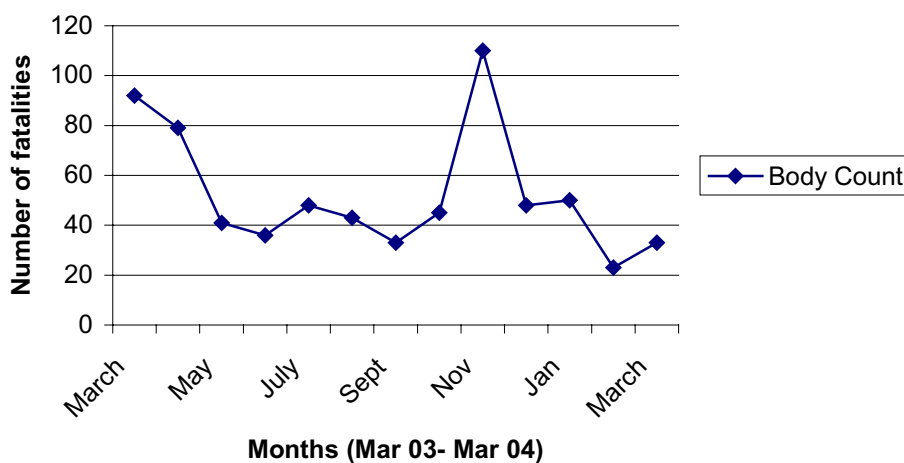


Figure 1. Monthly Coalition Fatalities (Lunaville 2004)

### Key:

- CW: Coalition military wounded
- CK: Coalition military Killed
- USW: US military wounded
- USK: US military killed
- UKK: UK military killed
- ONK: Other Nationalities military killed
- IRW: Iraqi military wounded
- IRK: Iraqi military killed
- IRCW: Iraqi civilian wounded
- IRCK: Iraqi civilian killed

### Injuries Reported by Agencies

CENTCOM reported only Coalition and US troops injuries. (Table 2). It will be noted that no agency provided any data on the Iraqi Military wounded. Lunaville offered data on all the wounded except among the Iraqi Military and Civilians. Also, it had no data on Iraqi Civilians killed. Antiwar, CNN and IBC provided the most complete data except for the Iraqi military wounded.

Antiwar reported lower number of Coalition wounded compared to other Agencies. However, the Agency was yet to confirm this data when an email was sent to them. CNN differed from IBC and Antiwar in the report of the Iraqi Civilian wounded and killed.

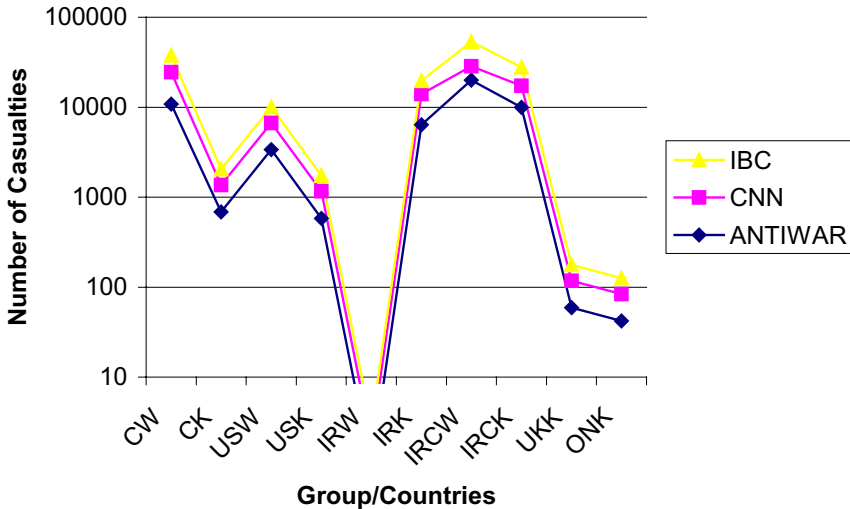
Report of United Kingdom and Other Nations fatalities was consistent in all Agencies except CENTCOM, which provided no data. However, in the mane, there were no differences in fatalities among the combatants.

**Table 2. Summary of casualties as reported by different Agencies**

Name	Lunaville	Antiwar.com	CENTCOM	CNN	IBC
CW	13,579	10,854	13,579	13,579	13,317
CK	681	683	681	682	683
USW	3203	3369	3203	3319	3369
USK	580	581	580	578	582
IRW	NA	NA	NA	NA	NA
IRK	4,895	6370	NA	7600	5633
IRCW	NA	20,000	NA	8581	25,000
IRCK	NA	10,000	NA	7350	10,430
UKK	59	59	NA	59	59
ONK*	42	42	NA	42	42

\*ONK: Other National Killed (Other coalition partners apart from UK & USA. Danish 1; Polish 2; Spanish 11; Italian 17; Ukrainian 3; Bulgarian 5; Thai 2; Estonian 1)

Figure 2. presents a graphic version of table 2, showing casualties as reported by three agencies-Antiwar, CNN and IBC.



**Figure 2. Casualties report by Agencies**

**Summing Up**

With regard to the principal aim of this investigation, the result was that no significant differences were found among the different reporting agencies in terms of figures of casualties (see Conclusion below). Attending to the possible epidemiological bias, the investigation suggest that the notion "combat casualty" may have a restricted meaning in the reporting of fatalities and which may exclude those fatalities occurred as a consequence of serious combat injury sequalae, possibly shortly after. Reporting of civil casualties as well as combatant casualties from the Iraq side were scarcely reported.

## Discussion

The aim of this investigation was to assess the differences in the reporting of injuries as the result of the Iraq war during the period of 20<sup>th</sup> March 2003–20<sup>th</sup> March 2004, which may possibly introduce bias in the numbers of injured as presented by the occupying forces and different agencies.

We observed a certain ‘bias’ in the reporting of war casualties that may be categorized as ‘subjective and objective’. The former is related to the interpretation of such a phenomenon, whereas the latter would be related to sources. (Ferrada-Noli 1996).

The results clearly show (See tables and Figures) that there is no significant difference on data offered by Agencies reviewed. The questions arise, on whether all the agencies may be using one and only source which we call ‘Objective’. Our second question is whether there is a consensus in the usage of the term, war casualties, i.e. what we have described elsewhere.

A particular confounding may occur when the variables of the study are ill defined or the conceptual extension of the entities under study is used in a too broad meaning. A too broad conceptual entity-assignment may entail the reference to diverse phenomena, which eventually have own singular characteristics (Ferrada-Noli et al, 2004). One example is if we assign to “casualties” both fatalities and injured victims and in the third part analysis the toll is read as only fatalities ipso facto at the time of the referred armed clash or combat. Epidemiologic nosology attempts to solve the problem by means of manifestation of inclusive respectively exclusive criteria for the main entities used in the study (id).

From reports, most Agencies rely on the United States Central command (CENTCOM) for their reports. However, CENTCOM does not provide tally of the press releases that announces the casualties of US troops. Also CENTCOM does not provide the casualties for Iraqi army and the civilians. Being a government agency, most reports may be tailored to meet the requirement of the Authority it serves.

The Coalition and in particular, the United States will be careful about reporting the true numbers of their combatants for obvious reasons of public opinion of the Government in power and moreover, in an election year. It therefore implies that many injuries were masked, which could render the statistics invalid. (Fisk 2004). To reduce the morbidity and maintain the morale of their forces, the Coalition employed services of mercenaries as reported by several media. Past experience of public outcry during the Vietnam War informed the United States action, not keeping a list of the Iraqi civilians or military wounded or killed. (Fisk 2004, Gorilovskaya 2004). This phenomenon, leads to under estimation of the actual number of casualties among the Iraqi population. Several Iraqi children were killed as the result of unexploded ordnance and blister bombs, which looked like fanciful toys. This fact has been collaborated by several authors.

The Iraqi Civilian suffered high casualties despite some pro – US commentators who claim that world II claimed several more lives in single bombings such as Mussolini’s attack on Ethiopia, Nazi bombing of London and the atomic bombs on Hiroshima and Nagasaki. Pentagon claims that the increased civilian casualty is due partly to the ‘asymmetrical war’ against Al Qaeda and other insurgencies. (Knickerbocker 2004).

The high number of wounded coalition force members, killed and the US troops wounded is consistent in all reports. November 2003, recorded the highest fatality among the coalition forces since, there was increase assault to repel guerrilla tactics of the Iraq militants. Also, the high death toll may have been linked to the coalition’s determination to hunt for Saddam Hussein.

It is also observed that all Agencies report the body counts of the injured or killed victims without comparable and standardized rates. This anomaly may have been due to the Coalition troops transitory deployments. This poses difficulties in calculation of incidences/prevalence of wounded/killed combatants.

Casualties of war were ill defined. The data revealed only the dead or injured as the result of a direct assaults during the combat. However, this does not exclude the casualties from other causes such as automobile accidents, self-inflicted injuries and injuries where firearms were not employed. Though these injuries may be classified as the result of operations of war E990-E999 in ICD-9 and revised as Y36.4/1,2,3,4,5,9 in ICD-10 (NCHS 2002,WHO 1992) provided firearms perpetuated them, but do we have a guarantee that all deaths were as the direct injuries from firearms?

Also, a profound underestimation may arise from non-inclusion of severely wounded victims who dies long after sustaining previously nonfatal injuries. Bias will definitely be introduced in such estimates that will compound epidemiological assessments.

## Limitation of Research Source

1. Incomplete data from Agencies.
2. Few independent Agencies since most Agencies rely on CENTCOM.
3. Censorship of Iraq ministry of Health, which prevented the release of local data.
4. The Researcher was unable to be physically present at any of the Agencies to access the methodology employed.

## Suggestions for Future Research

### Short-term:

- Inter-sectoral cooperation within Agencies to encourage more balanced reports as an interim measure.
- Willingness of Agencies to release data to Researchers may assist in the improvement of Assessment.

### Long term:

- Surveillance by Independent team of Scientists commissioned by neutral organizations is highly desirable.
- The participation of the Researchers on the Field in partnership with Agencies will hopefully, provide detail and concise results.

## Conclusion

Results compared from Agencies accessed exhibited no significant variations. However, high injury toll were observed among the coalition troops with an average of 682 fatalities within 12 months of the war in Iraq. November 2003, recorded the highest fatality among the coalition, six months after the declaration of the end of war.

Iraq civilians suffered over 20,000 injuries and an average of 9,260 fatalities. The study raised questions about the definition of war-related fatalities and how they should be reported with a challenge on epidemiological bias facing the global community. Scientific epidemiology requires that the item or variable to be described should have clear defined inclusive and exclusive criteria. With regard to war-related injury we were not able to conform on that a consensus or clear definition is currently used by the reporting agencies with regard to the nosological items under work i.e. combat fatalities and such.

## Queries:

- Do we have international consensus in epidemiological reports as how to define "casualty of war" or "war-related fatality"?
- What are the prevalent boundaries to discriminate between directly and indirectly caused of war injuries in epidemiological reports?
- Should the fatalities of the assailed forces also be reported in separate statistics such as listing the incidence and death-cause of all adversary combatants?
- Should World Health Organisation simultaneously record and publish the annual combined incidence of war-related fatalities per area of conflict?

## References

- Al-Ali J. 2004: *The Effects of War and Depleted Uranium Weapons in Iraq*. Environmentalists Against War. <http://www.envirosagainstar.org/edit/index.php?op=view&itemid=1111> Accessed 18/2/2004.
- BBC News 2003a: DR Congo: Africa's worst war. <http://news.bbc.co.uk/go/pr/fr/-/1/hi/world/africa/2928127.stm> Accessed 05/05/2004.
- BBC News 2003b: *UN Iraq resolution: Full text*. [http://news.bbc.co.uk/go/pr/fr/-/1/hi/world/middle\\_east/3012847.stm](http://news.bbc.co.uk/go/pr/fr/-/1/hi/world/middle_east/3012847.stm) Accessed 14/04/2004.
- Beaumont Peter 2004: *Stress epidemic strikes American forces in Iraq*. The Guardian.
- Begic D, Jokic-Begic N. 2001: Aggressive behaviour in combat veterans with post-traumatic stress disorder. *Mil Med.*166(8):671-6.
- Benjamin Mark 2004: *Ten Percent of US Casualties Evacuated from Iraq have Psychiatric Conditions*. <http://www.upi.com/view.cfm?StoryID=20040218-023102-6557r>. Accessed 19/4/2004.
- CENTCOM 2004: *News Releases*. [http://www.centcom.mil/CENTCOMNews/release\\_list.asp](http://www.centcom.mil/CENTCOMNews/release_list.asp)
- Central Intelligence Agency (CIA) 2003. Iraq .The World fact book. U.S.A <http://www.cia.gov/cia/publications/factbook/geos/iz.html> Accessed 14/10/2003.
- CNN 2003. *Special report on War in Iraq*. CNN. <http://www.cnn.com/SPECIALS/2003/iraq/forces/casualties/> Assessed 10/12/2003.
- Drescher KD, Rosen CS, Burling TA, Foy DW. 2003: *Causes of death among male veterans who received residential treatment for PTSD*. *J Trauma Stress*. Dec;16(6):535-43.
- Energy Information Administration (EIA) 2003. *Iraq Country analysis Brief*. EIA <http://www.eia.doe.gov/emeu/cabs/iraq.html> Accessed 23/01/2004.
- Ferrada-Noli 1996: *Post-traumatic stress disorder and suicidal behaviour in immigrants to Sweden. An epidemiological, cross-cultural and psychiatric study*. PhD Dissertation Karolinska Institutet.
- Ferrada-Noli M, Asberg M, Ormstad K. 1998: *Suicidal behavior after severe trauma. Part 2: The association between methods of torture and of suicidal ideation in posttraumatic stress disorder*. *J Trauma Stress*. Jan; 11(1):113-24.
- Ferrada-Noli M 1999: Marcello Ferrada-Noli Contents of the courses <http://www.hig.se/~mnf/pages/cont.htm> Accessed 12/2/2004.
- Ferrada-Noli M, John I.A, Svanström L 2004: Epidemiological bias in assessments of war-related injuries: the case of Iraq. *Safety* 2004.P. 230 Institut Leben/Kuratorium fur Schutz und Sicherheit, Vienna, Austria.
- Fisk Robert 2004: *New Iraq? Hooded Protest and masked statistics*. The Independent <http://www.occupationwatch.org/article.php?id=3702> Accessed 04/05/2004.
- Fontana A, Rosenheck R, Brett E. 1992: *War zone traumas and posttraumatic stress disorder symptomatology*. *J Nerv Ment Dis*. 180(12): 748-55.

- Goldenberg Suzanna 2003: *Up to 15,000 people killed in invasion, claims thinktank*. The Guardian/Project on Defense Alternatives. October 29, 2003. [http://www.occupationwatch.org/print\\_article.php?id=1618&print=1](http://www.occupationwatch.org/print_article.php?id=1618&print=1) Accessed 10/12/2003.
- Gorilovskaya Nonna 2004: *Uncounted Dead*. Mother Jones. [http://www.motherjones.com/news/daily mojo/2004/03/03\\_661.html](http://www.motherjones.com/news/daily mojo/2004/03/03_661.html). Accessed 04/05/2004.
- Graham Bradley 2003: *GI death toll sets monthly record: 79 Iraq guerrillas refine tactics, step up attacks*. Washington Post. Saturday November 29 2003. <http://sfgate.com/cgi-bin/article.cgi?file=/c/a/2003/11/29/MNGNT3CO0V1.DTL>. Accessed 1/12/03.
- Knickerbocker Brad 2004: *Who counts the civilian casualties?* Christian Science Monitor. <http://www.occupationwatch.org/article.php?id=3926> Accessed 04/05/2004.
- Helmkamp JC. 1994: *United States military casualty comparison during the Persian Gulf War*. J Occup Med. 36(6): 609-15.
- Iraq Body Count 2003 <http://www.iraqbodycount.net/> Accessed 14/10/2003.
- Iraq Body Count 2004: <http://www.iraqbodycount.net/> Accessed 23/01/2004.
- Levy B.S and Sidel V.W (eds). 2001. *War and Public Health*. Oxford University Press, 2001 Cary, NC. USA. Pp 254-269.
- Lunaville 2003. *Iraq Coalition Casualty Count*. <http://lunaville.org/warcasualties/Summary.aspx> Accessed 14/10/2003.
- Lunaville 2004. *Iraq Coalition Casualty Count* <http://lunaville.org/warcasualties/Summary.aspx> Accessed 23/01/2004.
- Macfarlane GJ, Thomas E, Cherry N. 2000: *Mortality among UK Gulf War veterans*. Lancet. 1;356(9223):17-21.
- Margis R. 2003: *Comorbidities in posttraumatic stress disorder: rule or exception?* Rev Bras Psiquiatr. 25 Suppl 1:17-20.
- MEDACT 2003: *Continuing Collateral damage—the health and environmental costs of war on Iraq 2003*. MEDACT. London.
- NCHS 2002: ICD-9. *International Classification of Diseases, Ninth Revision*. CDC. <http://www.cdc.gov/nchs/icd9.htm>
- Oquendo MA, Friend JM, Halberstam B, Brodsky BS, Burke AK, Grunebaum MF, Malone KM, Mann JJ. 2003; *Association of comorbid posttraumatic stress disorder and major depression with greater risk for suicidal behaviour*. Am J Psychiatry. 160(3): 580-2.
- Reza A, Mercy JA, Krug E. 2001: *Epidemiology of violent deaths in the world* Inj Prev. Jun; 7(2): 104-11.
- Spooner MH. 2002: *Suicide claiming more British Falkland veterans than fighting did* CMAJ May 28; 166(11): 1453.
- Stimpson NJ, Thomas HV, Weightman AL, Dunstan F, Lewis G. 2003: *Psychiatric disorder in veterans of the Persian Gulf War of 1991. Systematic review*. Br J Psychiatry. May; 182:391-403.
- The Family 1997-2001: *Deaths in wars*. [http://www.countdown.org/end/war\\_08.htm](http://www.countdown.org/end/war_08.htm). Accessed 05/05/2004.
- The White House. 2003: Bush, George W in: *President delivers State of the Union*, January 28 2003. Office of the Press Secretary. Washington DC. <http://www.whitehouse.gov/news/releases/2003/01/print/20030128-19.html>
- UNICEF 2003: *Iraq - Country in crisis*. <http://www.unicef.org/emerg/iraq/> Accessed 23/01/2004.
- WHO 1992: ICD-10. *International Statistical Classification of Diseases and Related Health Problems, 1989 Revision*, Geneva, World Health Organization.
- WHO 2002: *World Report on Violence and Health*. World Health Organization. Geneva.

***Mankind must put an end to war, or war will put an end to mankind — John F. Kennedy***