The Government’s Response to the Lancet Iraq Mortality Survey

Executive Summary

On 17 November 2004, the UK Foreign Secretary produced a written ministerial statement in response to the article ‘Mortality before and after the 2003 invasion of Iraq: cluster sample survey’ published in the Lancet on 29 October 2004. The ministerial statement dismissed the mortality estimates produced by the Lancet survey. This briefing argues that this dismissal is largely unjustified, and in parts disingenuous.

1) The UK Government rejects the Lancet study’s figures outright, arguing that the Iraqi Ministry of Health (MOH) figure of 3,853 dead civilians received in Iraqi hospitals (between 5 April 2004 and 5 October 2004) is far more accurate. This argument is untenable because:

(a) MOH officials have themselves stated that their figures are necessarily an undercount.

(b) The MOH figures and the Lancet study are fundamentally attempting to measure different things. The MOH figures attempt to record deaths from violence within the period from April to September 2004. The Lancet study attempts to measure the mortality, from all causes, before and after the invasion in March 2003. While the Lancet study nonetheless found that the largest cause of death was violence, and that the majority of that violence appeared to have been caused by Coalition forces, it also found a rise in non-violent (especially infant) mortality attributable to various deteriorating public health indicators in Iraq since the invasion.

(c) The Government criticises the Lancet study as failing to distinguish adequately between deaths caused by ‘terrorists’ and by ‘Coalition forces’, and between the deaths of civilians and anti-Coalition fighters. According to the Iraqi Minister of Health, the MOH figure aggregates these categories in precisely the same way.

2) The Government misrepresents the Lancet study’s findings and methodology, taking a standard methodological procedure and claiming that it represents an overwhelming caveat about the study’s precision. Quoting the Lancet study’s ‘95% confidence interval’ of 8,000-194,000 deaths, the Government argues both that the median figure of 98,000 extra deaths is thus imprecise, and that any figure within this interval is consistent with the data. This is misleading: given the data, the real figure is far more likely to fall around the median value of 98,000 than at the edges of this distribution. Moreover, since cluster surveys of this sort are likely to under-count rather than to over-count mortality, and that one cluster of extremely high mortality (Fallujah) was actually excluded from the study, the real figure is likely to fall towards the upper rather than the lower end of this confidence interval.

3) The Government rejects all Coalition responsibility for civilian deaths caused since May 2003. This is contrary to widespread evidence (detailed below) of military action which has failed to discriminate between civilians and combatants, and may even constitute breaches of international humanitarian law. The Government further claims that the Lancet study found that there was little wrongdoing by Coalition forces ‘on the ground’, while neglecting to mention the study’s key finding that Coalition action off the ground, in airstrikes, was failing to discriminate between civilians and combatants: 52% of deaths attributed to coalition forces by the study’s informants were of women and children.

4) Despite arguing elsewhere that reliable statistics are essential in order to determine reconstruction policy in Iraq, the Government rejects the need to keep count of civilian casualties caused by Coalition forces. The Government also ignores the Lancet study’s demonstration that, with limited resources, meaningful indicators of mortality in Iraq can be established, falsifying their claims that Coalition or Iraqi resources cannot establish such measures of the Iraqi population’s well-being.
The ministerial statement, quoted in boxes below, falls into 4 parts. The first refutes most Coalition responsibility for casualties of violence in Iraq. The second refutes its legal obligations to collect statistics of civilian casualties. The third criticises the general mortality figure produced by the Lancet study, and defends a much lower estimate of violent deaths, produced by the Iraqi Ministry of Health. The fourth criticises specific attributions of deaths recorded by the Lancet study.

I. 'The Security Context'

1) 'It is important to recall the background to the current violence in Iraq. In the period of major combat activities in Iraq between the coalition and Iraqi forces loyal to Saddam Hussein, there were inevitably civilian casualties caused by military action by both sides. Every effort was made, on the part of the coalition, to minimise the civilian casualties as required by international humanitarian law. Casualties – civilian and military – which have occurred since major combat activities ended on 1 May 2003 have done so directly as a result of those determined to undermine the political process.'

This extraordinary blanket statement appears to argue that if Coalition forces have killed civilians since May 2003, their deaths were nonetheless necessarily the fault of anti-Coalition fighters. This more or less defies justification, and logic.

2) 'The Multi-National and Iraqi forces continue to act so as to minimise civilian casualties.'

It is difficult to support this view, given evidence of tactics used by Multi-National and Iraqi forces, as for instance in the recent November assault on Falluja. The US military itself estimated that 30 to 50 percent of the civilian population remained in the city at the start of the assault on 8 November. Yet as the assault began it was widely reported that troops would regard anyone still left in the city as a potential insurgent, and all cars as possible suicide bombs. US and UK troops, moreover, instituted a military cordon, blocking all roads out of Falluja. While women and children were allowed to pass out of the city, men were turned back. Thus civilians appear to have been prevented from leaving Falluja, and then turned indiscriminately into military targets. Moreover, instructions issued by the Iraqi Interim Administration to civilians to remain indoors and away from windows appear to leave them vulnerable to MNF tactics of avoiding close combat by destroying houses suspected of holding combatants with heavy arms and tank fire. Further suggestions of indiscriminate action against combatants and civilians include:

- the use of 2000-pound bombs on heavily built-up areas in Falluja;
- mine-clearing devices such as 100-metre long Miclic ropes, designed for open spaces but deployed in Falluja and described in The Times as 'highly effective but also indiscriminate, and not normally considered suitable for an urban environment';
- military action against the main Falluja hospital, apparently in contravention of Article 11 of the 2nd Protocol to the Geneva Conventions, which requires that '[m]edical units and transports shall be respected and protected at all times and shall not be the object of attack';
- evidence that water supplies were cut off to Tall Afar, Samarra and Falluja prior to US assaults, widely reported as a deliberate US tactic.

To justify its assurance about efforts to preserve civilian life, the Government should make specific statements about these actions, ascertaining whether they have taken place; and if so, whether they are compliant with International Humanitarian Law.
3) 'The MNF [Multi-National Force] is currently providing food and other supplies to civilians in the Falluja area, and working closely with the Iraqi Ministry of Health to ensure medical supplies reach there.'

This ignores the fact that the MNF refused to allow a waiting Red Crescent relief convoy to enter Falluja for several days, apparently in contravention of Article 59 of the 4th Geneva Convention, which requires that parties to military conflict shall agree to relief schemes on behalf of the said population, and shall facilitate them by all the means at its disposal. Such schemes, which may be undertaken either by States or by impartial humanitarian organizations such as the International Committee of the Red Cross, shall consist, in particular, of the provision of consignments of foodstuffs, medical supplies and clothing. All Contracting Parties shall permit the free passage of these consignments and shall guarantee their protection. MNF and Iraqi forces refused to permit relief to enter Falluja until 6 days after the conflict began, following a siege and shelling lasting several weeks.

II. 'The legal context'

4) 'The Lancet study suggests that there is an obligation deriving from Article 27 of the Fourth Geneva Convention for the multinational force (MNF) itself to have a reckoning of the number of civilian casualties it has caused. There is nothing in Article 27, or elsewhere in the Fourth Geneva Convention, to support this suggestion. The basic obligations under international humanitarian law as regards civilian casualties in an armed conflict are set out in Additional Protocol 1 to the Geneva Conventions, which also reflects customary international law. In particular, indiscriminate attacks are prohibited, and this includes any "attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated". This obligation under international humanitarian law has been fully complied with by the United Kingdom in respect of all military operations in Iraq.'

The Lancet study's actual reference to the Geneva Convention was in fact more nuanced than this. It argued that since the Geneva Conventions place an obligation on US/UK forces to look after the civilian population, they require knowledge about the effects of their actions on that population in order to know whether they are in compliance with their legal obligations:

The Geneva Conventions have clear guidance about the responsibilities of occupying armies to the civilian population they control. The fact that more than half the deaths reportedly caused by the occupying forces were women and children is cause for concern. In particular, Convention IV, Article 27 states that protected persons "... shall be at all times humanely treated, and shall be protected especially against acts of violence ...". It seems difficult to understand how a military force could monitor the extent to which civilians are protected against violence without systematically doing body counts or at least looking at the kinds of casualties they induce.

This is an argument which the Government has itself made strongly in other circumstances. For instance, the 'Country Assistance Plan' produced by the UK Department for International Development (DfID) in February 2004 argues that one of the best services it can offer the Iraqi government is to help it to collect accurate statistics, to enable it to develop and monitor policy:

Our priority will be to ensure that economic policies take account of the needs of the
poor and vulnerable and that appropriate social safety nets are put in place. We will offer help to the Central Statistics Office to provide reliable data as the basis for deciding policy, and monitoring impact.

If DFID thinks that such monitoring is necessary for government planning, why does the Foreign and Commonwealth Office not think that it is necessary for military planning?

### III. Casualty estimates

5) In many cases it would be impossible to make a reliably accurate assessment either of the civilian casualties resulting from any particular attacks or of the overall civilian casualties of a conflict. This is particularly true in the conditions that exist in Iraq. However, since 5 April 2004 the Iraqi Ministry of Health has sought to collect casualty data. Explaining the procedure, the Iraqi Minister of Health stated on 29 October: "Every hospital reports daily the number of civilians (which may include insurgents) who have been killed or injured in terrorist incidents or as a result of military action. All casualties are likely to be taken to hospital in these circumstances except for some insurgents (who may fear arrest) and those with minor injuries. The figures show that between 5 April 2004 and 5 October 2004, 3,853 civilians were killed and 15,517 were injured. I am satisfied that this information is the most reliable available."

The Iraqi Minister of Health’s confidence that ‘[a]ll casualties are likely to be taken to hospital’ contradicts statements made to Knight Ridder newspapers, which supplies 31 newspapers across the US, by his ministry’s officials and hospital administrators, as reported on 25 September:

Iraqi health and hospital officials agreed that the statistics captured only part of the death toll....The numbers also exclude those whose bodies were too mutilated to be recovered at car bombings or other attacks, the ministry said. Ministry officials said they didn’t know how big the undercount was. "We have nothing to do with politics,” [Dr. Shihab Ahmed] Jassim [member of the Ministry of Health Operations Section] said.

It is implausible to believe that in conditions of war - when access to roads and health facilities are so severely disrupted that even humanitarian organisations cannot reach hospitals and other facilities, as was the case in the recent action in Falluja; and when it might seem pointless to risk the journey for the sake of someone who is already dead, or whose body is simply irretrievable - hospital-collated figures can be anything but an undercount, whose degree will arguably increase with the severity of military action. It would be extremely surprising if there was not a significant difference between a study (the Iraqi Department of Health) which counted the number of people who were brought to hospitals dead or died there, and a study (the Lancet survey) which attempted to estimate the total number of people who died, whether in or out of hospital. This is the discrepancy for which the Government complains the Lancet study does not account (see Section 6 below).

6) 'We share this view [of the Iraqi Minister of Health]. The Ministry’s figures do not of course cover the whole of the period since military action was taken, but they do include the months of April and August, when casualty figures were particularly high... Other questions about the Lancet study relate to the significant differences between its estimate and other evidence, notably the figures on casualties produced by the Iraqi Ministry of Health and quoted above. If the Lancet survey is accurate we could have expected Iraqi Ministry of Health figures, compiled by hospitals, to show many more times the number of people killed and wounded
over that period than they in fact do. Hospitals in Iraq have no obvious reason to under-report the number of dead and injured. The Lancet article does not explain this discrepancy.

Firstly, the difference in time periods between the two sources is significant. The Lancet study compares deaths in a 14½-month period before the invasion, with an 18-month period starting at the date of the invasion. It will thus include deaths caused by the invasion, which the ministerial statement accepts ‘inevitably’ caused ‘civilian casualties’, while MOH figures do not. Even without their methodological differences in recording deaths (which, as explained above, would account for precisely such an ‘under-report [of] the number of dead or injured’, as MOH officials have themselves stated), one would thus expect them to diverge.

More fundamentally, one would expect them to differ even without methodological differences in the collection of data because they are measuring fundamentally different things, and so contrary to the Government’s insistence are not directly comparable. The MOH figures attempt to record deaths from violence within the period from April to September 2004. The Lancet study attempts to measure levels of mortality, from all causes, before and after the invasion in March 2003; and tries to measure the increase in the mortality rate between these two periods: a rise which they seek to explain in terms of a variety of changes in Iraq’s humanitarian conditions (including nutrition, sanitation, disease, disruption of essential services, and violence) since the invasion.

As a point of accuracy, the MOH figures appear to show more deaths recorded in May (749 deaths, 1983 wounded) than in April 2004, the month of the first assault on Falluja (when the MOH recorded 344 deaths and 1415 injured). This again casts doubt on their accuracy in accounting for violent deaths in areas of extreme conflict like Falluja.

The Government is correct to suggest that the Iraq Body Count figures are unlikely to be accurate. But contrary to the Government, these figures are likely to be an undercount rather than an overcount, since press reports of casualties will be incomplete, not least because the areas where people are being killed are the same areas into which journalists don’t dare go. As Iraq Body Count itself states on its website:

Our maximum therefore refers to reported deaths - which can only be a sample of true deaths unless one assumes that every civilian death has been reported. It is likely that many if not most civilian casualties will go unreported by the media.

The Government is also being inconsistent in dismissing Iraq Body Count’s figure because it fails to distinguish between deaths caused by ‘terrorists’ and by ‘Coalition forces’, and between deaths of civilians and anti-Coalition fighters. Their preferred Ministry of Health figure does precisely the same: according to the Iraqi Minister of Health, it includes those ‘who have been killed or injured in terrorist incidents or as a result of military action’, and ‘may include insurgents’.
The [Lancet] article estimates that between 8,000 and 194,000 more people died following the invasion of Iraq than previous rates of mortality would have predicted, with the “most likely” figure being 98,000 extra deaths. 73% of the total of 142 deaths recorded by the survey in the period since the invasion are judged to have occurred through violence from the coalition forces or from terrorists. Other deaths recorded were the result for example of heart attacks or road accidents, not of coalition or terrorist action. As the authors of the study themselves acknowledge, it was carried out under exceptionally difficult conditions which in particular restricted the size of the samples surveyed. In general they have noted that the data on which they based their projections was of “limited precision”. This limited precision is reflected in the very large range which they use for their estimate of excess mortality (8,000 – 194,000). Although the levels of probability vary across its range, any figure within this range is consistent with the data.

(i) Precision of data: The authors in fact go to some lengths to justify the precision of the data in their sample, for instance by requesting death certificates for those claimed to have died, which were provided in 81% of cases where death certificates were requested. They accept that the projections from their data were of ‘limited precision’, a statement directly followed by their insistence, not quoted in the Government’s statement, that ‘[i]n this case, the lack of precision does not hinder the clear identification of the major public-health problem in Iraq—violence.’

(ii) Probability of the 98,000 figure: The Lancet study estimated that the most likely size of the mortality rise since the invasion was 98,000 deaths. The range from 8,000-194,000 is a ‘95% confidence interval’: broadly, this represents the range of values within which the actual numbers of deaths are 95% certain to fall, given the figures produced by the sample. It does not mean, however, that all values within the confidence interval are equally likely. Figures near the centre of a symmetrical confidence interval are substantially more likely to be accurate than those at the edges. The single most likely value is the central estimate of 98,000 excess deaths. The Government’s claim that ‘any figure within this range is consistent with the data’ is formally true, but essentially meaningless: indeed, any figure at all over the recorded figure itself of 142 deaths is formally consistent with the data - which might somehow have captured an unusually high proportion of the actual deaths - but is massively unlikely beyond and at the edges of the confidence interval.

Moreover, further evidence suggests that the central figure of 98,000 deaths is not likely to be a massive overestimate. As the report’s authors explained in a subsequent statement:

Research is more than summarizing data, it is also interpretation. If we had just visited the 32 neighborhoods without Falluja and did not look at the data or think about them, we would have reported 98,000 deaths, and said the measure was so imprecise that there was a 2.5% chance that there had been less than 8,000 deaths, a 10% chance that there had been less than about 45,000 deaths...all of those assumptions that go with normal distributions. But we had two other pieces of information. First, violence accounted for only 2% of deaths before the war and was the main cause of death after the invasion. That is something new, consistent with the dramatic rise in mortality and reduces the likelihood that the true number was at the lower end of the confidence range. Secondly, there is the Falluja data, which imply that there are pockets of Anbar, or other communities like Falluja, experiencing intense conflict, that have far more deaths than the rest of the country. We set aside these data in statistical analysis because the result in this cluster was such an outlier, but it tells us that the true death toll is far more likely to be on the high-side of our point estimate than on the low side.
Finally, the Lancet study does not claim that 98,000 people died from violence, but that violence was the largest cause of these deaths. Within its sample, 51% of the deaths recorded were due to violence, or 24% if the Falluja sample is discounted. Given the difficulties of the study, it is hard to estimate where the true proportion lies; given the prevalence of violence in Falluja, it is arguably likely to lie in the upper part of the range between these two figures.

(iii) Sample size: Conditions did indeed restrict the size of the sample surveyed, but this was duly reflected in the wide confidence interval of the results. These nonetheless show that even at the very low (and thus much less likely) end of this confidence interval, mortality is still overwhelmingly likely to have risen in Iraq since March 2003, and by an amount several thousands greater than that accounted for by violent deaths reported to hospitals, which constitutes the Ministry of Health figure.

IV. Responsibility for violent deaths

9) The Lancet’s researchers acknowledge that they encountered no evidence of widespread wrongdoing on the part of individual Multi-National Force (MNF) soldiers on the ground...Since 58 of the 61 deaths attributed to Coalition forces were said to have been caused by “helicopter gunships, rockets or other forms of aerial weaponry”, it cannot have been possible for the families in every case to have known for certain who was responsible. It is also possible that they would have been afraid to have blamed the deaths of their relatives on the insurgents.'

This is technically correct: the Lancet study found that ‘only three of 61 incidents (5%) involved coalition soldiers (all reported to be American by the respondents) killing Iraqis with small arms fire. In one of the three cases, the 56-year-old man killed might have been a combatant. In a second case, a 72-year-old man was shot at a checkpoint. In the third, an armed guard was mistaken for a combatant and shot during a skirmish.’

The Government neglects to mention, however, that the study’s finding that most of the violent deaths were caused by ‘Coalition air strikes’ arguably constitutes wrongdoing on the part of Multi-National Force soldiers off the ground. It suggests that claims that Coalition air strikes are precise, and discriminate between combatants and non-combatants, are overplayed. A central principle of International Humanitarian Law, according to the International Committee of the Red Cross, is that ‘[t]he parties to a conflict must at all times distinguish between the civilian population and combatants in order to spare the civilian population and civilian property. Neither the civilian population as a whole nor individual civilians may be attacked.’ The Lancet study suggests that the Coalition’s aerial bombardment does not allow such a distinction [see point 2]. It is perhaps significant that the Government gives an assurance that the obligation under Protocol 1 of the Geneva Conventions to avoid indiscriminate attacks ‘has been fully complied with by the United Kingdom in respect of all military operations in Iraq’, but does not include US or Iraqi Interim Government forces in this assurance. The UK Government should clarify whether it is indeed confident that US forces have complied with international law; and if not, why they have not condemned such a failure on the part of their ally, as the International Committee for the Red Cross has done in strongly criticising abuses of international humanitarian law on all sides of the Iraq conflict on 19 November 2004.

10) The figures derived from the survey’s data on Falluja would have resulted in an estimated 200,000 excess deaths within Falluja alone over the past 18 months. This would amount to almost two-thirds of the total population of the town - which is just not credible.
The authors of the study understandably discounted the data.

Since this Falluja data is discounted in the study's final analysis, it is unfair to use it as an implicit criticism that the data produced by the study was 'not credible'. As a point of accuracy, moreover, the 'Fallujah' cluster in the Lancet study represented 739,000 people in the region, a larger proportion of the population than the inhabitants of the city alone.

11) 'We doubt the survey’s attribution of 61 violent deaths to action by Coalition forces. Only 2 deaths are attributed in the survey to "anti-coalition forces". This is an astonishingly small proportion of those said to have died from violence, given the large numbers of Iraqis we know have died in individual incidents at the hands of terrorists.'

This small number is indeed puzzling. However, 12 (over 16%) of the violent deaths in the sample were in fact attributed to perpetrators other than coalition forces: 'of these [twelve], two were attributed to anti-coalition forces, two were of unknown origin, seven were criminal murders, and one was from the previous regime during the invasion'. In particular, the 7 deaths described as 'criminal murders' represented nearly 5% of all reported deaths in the survey, both violent and non-violent: an incredibly high criminal murder rate if this is indeed the case. It is possible that some of these may have been caused by what might also be categorised as 'terrorism'.

12) 'The authors also acknowledge that "many of the Iraqis reportedly killed by US forces could have been combatants". The greatest increase in deaths which they report was among 15-59 year old men, while for instance among the elderly in the survey there was effectively no increase in the death rate at all.'

Combatants may well have been amongst those reportedly killed, as is also the case with their preferred Ministry of Health figures. There are, however, also a number of other possible explanations for the mortality rise being concentrated in males between 15 and 59. As the Lancet report states:

It is not clear if the greater number of male deaths was attributable to legitimate targeting of combatants who may have been disproportionately male, or if this was because men are more often in public and more likely to be exposed to danger. For example, seven of 12 (58%) vehicle accident related fatalities involved men between 15 and 60 years of age.

Crucially, the Government’s arguments in Points 9-12 all concern the attribution of immediate blame for the increase in violent deaths. They do not diminish the Lancet study’s main finding about the existence and size of this mortality increase. The Lancet report finds that the most significant cause of the overall increase in Iraqi mortality was violence, and regardless of how these violent deaths are disaggregated into ‘combatants’ and ‘civilians’, and its perpetrators into ‘Coalition’ and ‘insurgent’ combatants - disaggregations which the Iraqi Ministry of Health (MOH) figure cited by the Government does not make either - it nonetheless attests to a much larger rise in violent deaths than other (passive) counts. For reasons explained in section 8, the Government does not credibly refute the larger scale of this increase in comparison to its own preferred figures produced by the MOH.

The Lancet study also shows a substantial rise in infant mortality, suggesting a significant decline in standards of living in Iraq. In short, it argues that the public health situation has deteriorated since the invasion of Iraq. The Coalition must take this into account when
insisting that conditions since the invasion of Iraq have improved for the Iraqi people, instead of simply dismissing it; and take steps to ensure that their actions do not further exacerbate the rising mortality in Iraq. In order to do so, it is not unreasonable to ask that they make their own efforts, based on active investigation rather than the passive reporting systems of Iraq Body Count and the Iraqi Ministry of Health, to discover the scale of both violent and non-violent mortality in Iraq.

This briefing has been prepared for Iraq Analysis (www.iraqanalysis.org) by Michael Lewis. Advice and material has also been provided by Dan O’Huiginn, Ali Draper, Jonathan Stevenson, Glen Rangwala and Colin Rowat. Especially valuable have been the superb analyses of the Lancet study’s findings and its critics produced by Chris Lightfoot and Daniel Davies, on whose arguments sections 6 and 8 of this briefing substantially draw.26

Contact: Michael Lewis, Christ’s College, Cambridge CB2 3BU
Tel: (+44) 7712 655130
Email: mhl24@cam.ac.uk


3. e.g. Lindsey Hilum, ‘Fallujah can only be won when the battle ends and the people have water’, The Observer (UK), 7 November 2004; Scott Peterson, ‘Marines prep for a shifting enemy’, Christian Science Monitor, 3 November 2004


7. Paul Wood, ‘Fearsome power of marines in Falluja’

8. Michael Evans, ‘Deadly rockets blast their way through’, The Times (UK), 10 November 2004

9. ‘US attacks Iraq rebel stronghold’, BBC News Online, http://news.bbc.co.uk/1/hi/world/middle_east/3992263.stm; Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II), http://www.icrc.org/ihl.nsf/1eaf7c4d03d9b287942141256739003e636b/d67c3971bcff1c1d0c125641e0052b545


15. See Section 5

16. Yousef, ‘Iraqi Civilian Casualties Mounting’

17. http://iraqbodycount.net/ \ position

18. See Section 5


22. http://www.icrc.org/Web/Eng/siteeng0.nsf/html/5ZMEEM


http://ex-parrot.com/~chris/wwwitter/20041102
_but_one_hundred_thousand_deaths_is_an_easily-abused_statistic.html;
http://www.crookedtimber.org/archives/002858.html