

A Contested Crisis: Policy Narratives and Empirical Evidence on Border Deaths in the Mediterranean

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Abstract

Death and suffering of migrants at Europe's Mediterranean Sea border has become one of the defining moral and political issues of our time. While humanitarian organisations argue that deaths result from Europe's policy of exclusion and closure, those employing a deterrence-oriented narrative have argued for even stricter border controls. Perhaps because of its contentious nature, the debate is often devoid of systematic information on the drivers and dynamics of border deaths. This study contributes to our understanding of border deaths in the Mediterranean region in three ways: it describes and evaluates the most recent data sources on migration and mortality; it provides a descriptive statistical analysis of absolute and relative mortality risks between 2010 and 2016; and it assesses the relationship between European border policy and border deaths. Our findings challenge the dominant deterrence-oriented policy narrative and highlight the failure of European authorities to address the ongoing humanitarian crisis.

Key words: Border deaths, Frontex, Irregular migration, Mediterranean, Refugee crisis, Search and Rescue, Policy narratives

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Introduction: A Contested Crisis

Between 2000 and 2016, an estimated 31,799 people have died or gone missing in their attempt to reach Europe by sea. More than 5,000 border deaths occurred in 2016 alone, a level never recorded before³. Although migrants⁴ have been dying in the Mediterranean since the 1990s, border deaths only became widely described as a 'crisis' since 2015, when an unprecedented increase in the number of arrivals placed the issue of irregular migration in the centre of public and political attention. The perception of an acute humanitarian crisis was reinforced by a number of large-scale accidents in the spring of 2015, as well as public indignation over the widely published picture of the deceased Alan Kurdi on the Turkish shore. In response, a number of humanitarian organisations deployed vessels to engage in Search And Rescue (SAR) operations, and promptly became the focus of criticism from a range of anti-migrant groups and politicians (Heller and Pezzani, 2017).

As a result of the increased attention, an intense debate over the causes and implications of border deaths has emerged in the public, political and academic arena. Within this debate two diametrically opposed positions or 'policy narratives' (Boswell et al., 2011) can be observed, which we have labelled the 'deterrence' and 'humanitarian' narratives. Policy narratives can be described as simplified 'short-circuits', in which political actors make empirical claims on the nature of a certain problem, the causal mechanisms at play and the consequences of policy interventions (Boswell et al., 2011; Carling and Hernández-Carretero, 2011). Such conflicting narratives are particularly common in migration politics, which often involve 'wicked problems'

³ Data sources are discussed in the next section.

⁴ This study uses the term 'migrant' in the inclusive sense proposed by Carling (2015), in order to avoid the misleading and counterproductive 'refugee' vs. 'economic migrant' dichotomy. The term 'irregular migration' is used, where necessary, to clarify that we are not talking about migrants arriving through formal channels.

with great levels of uncertainty. In the following paragraphs we provide a brief outline of the 'deterrence' and 'humanitarian' narratives, focusing on the main actors, arguments and proposed solutions as well as the way in which they employ the discourse of crisis to argue for changes in European migration policy.

In the deterrence narrative, which is the dominant discourse among European authorities and agencies such as Frontex, the term 'crisis' is mainly used to refer to the number of *arrivals* and Europe's perceived inability to accommodate them. Irregular migrants are seen as a burden on European societies as well as a potential security risk, an unspecified threat that needs to be contained through the erection of fences and other obstacles (Bauman, 2016; Mainwaring, 2016). Proponents of this view tend to frame border deaths as the result of Europe's inability to control its external borders and prevent irregular migration. Indeed, European authorities have strategically employed the discourse of crisis and the need to prevent further deaths to legitimize increasingly drastic deterrence measures, such as the repatriation agreement with Turkey (den Heijer et al., 2016). Consequently, "the hardships migrants face can be turned around to label control measures protective and benevolent" (Carling and Hernández-Carretero, 2011), whereas more welcoming measures are discredited as encouraging further risky crossings. An extreme example of this perspective is German far-right parliamentarian Beatrix von Storch, who suggested that migrant deaths should be blamed on Angela Merkel's overly tolerant refugee policy (Die Welt, 2016). Similar arguments have been employed by Frontex and others, however, in their criticism of humanitarian search and rescue operations in the Mediterranean (Heller and Pezzani, 2017).

The second narrative, mainly espoused by humanitarian organizations and human rights groups, sees deterrence as the *cause* of the increasing death toll, rather than as a solution. It is argued that 'Fortress Europe's' policy of securitization and closure is the main reason for the occurrence of border deaths, because in the absence of safe and legal passages people are forced to

undertake dangerous sea crossings. Proponents of this view see the 'migrant crisis' primarily through a humanitarian lens, emphasizing the Europe's moral and legal responsibility towards refugees and people in need. This applies first and foremost to the need to rescue people at sea, but also extends to addressing the underlying factors that force people to risk their life at sea. Most humanitarian agencies and human rights proponents share the view that more humane migration laws and a less restrictive border policy, in combination with addressing the root causes of global migration, will reduce and eventually remove the need for irregular migration (see Cuttita (2017) and Scott-Smith (2016) for a more in-depth analysis):

"To stop more tragedies at sea, Europe's leaders (...) should offer refugees safe ways to seek asylum in Europe, so people won't see the sea as their only route to safety. Nobody should have to die just to cross a border, and every life lost at sea is a life too many" (Amnesty International, 2015a).

By emphasizing the political causes of the humanitarian crisis, organisations such as Médecins Sans Frontières (MSF) explicitly challenge the dominant deterrence narrative:

"Europe cannot continue to count on the deadly sea crossing, fences and poor reception conditions to act as a 'filter of deterrence'. The current narrative and policies cannot hold" (Medecins Sans Frontieres, 2015: 5).

Border deaths have thus become more than a human tragedy: they have become a central focus in the contentious debates surrounding migration and borders that currently engulf most of the Western world. Yet, perhaps because of the ideological and polarized nature of the issue, the debate is often devoid of factual information. In part, this is due to a lack of data: neither the EU nor its border states keep records on migrants who died or went missing in the attempt to cross EU borders, and Frontex data on monthly arrivals was not made publicly available until recently.

As a result, we used to know little about questions of major humanitarian and political relevance, such as:

- How many migrants have died, both in absolute terms and relative to the number of people that attempted the crossing?
- How do mortality risks differ between routes and over time?
- How does border policy affect border deaths?

This has changed somewhat in recent times, with the publication of investigative reports by various international organizations and advocacy groups (Amnesty International, 2015b; Brian and Laczko, 2014; Cosgrave et al., 2016; Dearden et al., 2016; Medecins Sans Frontieres, 2015). These reports and policy briefs seek to investigate, and draw attention to, the magnitude and scope of the humanitarian crisis currently unfolding at Europe's Mediterranean border, although they also tend to provide a somewhat fragmented picture, covering limited data sources, time frames and geographical areas.

The academic literature on the border deaths hardly engages with this newly available empirical data on sea arrivals and mortality⁵. Most scholarly work related to migrant death instead focuses on migration policy (Patalano, 2015; Tazzioli, 2016), its international (human rights) law implications (Follis, 2015; Grant, 2011; Trevisanut, 2014), or the lived experiences of individual migrants and aid workers (del Valle, 2016; Scott-Smith, 2016; Squire et al., 2017). We believe that each of these areas could benefit from a more comprehensive treatment of statistical data.

⁵ Among the notable exceptions are the works of Carling (Carling, 2007; Carling and Hernández-Carretero, 2011), Cattaneo & D'Amico (2016) and the Amsterdam-based research team led by Spijkerboer (den Heijer et al., 2016; Last et al., 2016; Spijkerboer, 2013). These will be discussed in more detail below.

This study therefore seeks to collate, summarize and assess recent empirical data on trends and dynamics of migrant deaths in the Mediterranean Sea. In doing so, we critically evaluate some of the underlying assumptions of the narratives described above, including the 'pull factor hypothesis'. Moreover, by pointing interested readers to the most recent and accurate data available and providing analytical templates, we prepare the ground for urgently needed further research and monitoring.

The structure of this paper is threefold. First, we describe the available data sources on border deaths and migrant arrivals, and assess their scope and reliability. Second, we provide a systematic analysis on Mediterranean border deaths from 2010 to 2016, collating data from multiple sources. By combining sea arrivals and fatality statistics, we calculate absolute and relative mortality rates, by route and over time—including the most recent data (until December 2016). Third, we discuss the policy implications of the observed mortality patterns, particularly in relation to European border policy.

Border Deaths in the Mediterranean: Data Availability and Statistics 2000-2016

Recording border deaths

Counting the number of 'missing migrants' gives us an idea of the sheer scale of the humanitarian crisis, and can serve as an impetus for policy change (Last et al., 2017). Since neither the EU nor its member states keep a centralized register of dead or missing migrants, a number of organisations have sought to compile databases on migrant fatalities (see Appendix Table 1).

Initially, these databases used media reports as their primary source of information. The most comprehensive source is *The Migrants Files* (<http://www.themigrantsfiles.com/>), which is managed by a consortium of European media outlets.

With the publication of the first volume of the Fatal Journeys report (Brian and Laczko, 2014), the International Organization of Migration (IOM) started to draw attention to migrant deaths worldwide, including the Mediterranean. The organization has since provided updated information on the Missing Migrants Project (MMP) homepage (<http://missingmigrants.iom.int/>). The MMP constitutes a substantial improvement over previous efforts, because it is no longer based on media reports alone. In addition to media coverage, the IOM receives data from various organizations that receive survivors at landing points along the Mediterranean coast, as well as from national authorities such as coast guards and medical examiners.

Finally, a team of researchers at the VU University Amsterdam has compiled the 'Deaths at the Borders Database' (www.borderdeaths.org) covering migrant deaths from 1990-2013 (Last et al., 2017). This database has a somewhat different focus since it is derived from death certificates, and thus records confirmed deaths only. Since not all drowned migrants are found and/or issued a death certificate, this database should not be seen as an approximation of actual death toll. Compared to the other sources, however, it does have a number of advantages. First, it allows for a comparison of the number of migrants that are found and identified to the (estimated) overall number of deaths. Comparing the "Death at the Borders" figures to those based on other data sources, it becomes clear that only a small number of disappeared migrants are eventually found, and an even smaller number can be identified. Moreover, the database shows how the rate of identification differs between countries and by region of origin. Second, because death certificates contain various details about the deceased person, this database

provides more detailed information on demographic characteristics (gender, age, nationality) of border deaths than the previously discussed sources.

Although each of these data sources contribute to our understanding of migrant mortality in the Mediterranean, they also suffer from a number of limitations (Laczko et al., 2016). Due to the nature of unauthorized migration, counting fatalities presents numerous difficulties. First, not all accidents may be picked up by the media or registered by the authorities in the country of arrival. This is particularly likely in accidents that have no survivors, or that occur close to the point of departure. Second, survivor reports may be inaccurate, particularly if the vessel they travelled in was carrying many people. Although recent efforts such as the MMP attempt to triangulate and cross-validate sources where possible, under- as well as over-reporting of deaths remains a real possibility. Because the former is more likely than the latter, it is appropriate to consider the figures provided to be a lower-bound estimate (International Organization for Migration, 2017).

For the purpose of this study, we combine the two most comprehensive sources of mortality data currently available: the Migrants Files for the period 2000-2013 and the Missing Migrant Project from 2014 to 2016. A total number of 31,799 deaths were recorded in the combined period⁶. Because both databases provide the date and location of accidents, it is possible to classify the number of fatalities by year and by route (see Figure 2). We distinguish between three main sea routes to Europe: the western route (from North-West Africa to Spain, including the Canary Islands), the central route (from Libya and other North African countries to Italy and Malta) and the eastern route (from Turkey to Greece) (a map is provided in the Online Appendix).

⁶ We use the term 'deaths' to refer to both confirmed dead and missing persons.

Figure 1 shows that the number of border deaths varied greatly between routes and over time. For example, while 2010 was a year with comparatively low mortality, 2011 saw a massive increase, particularly on the central route. In the last three years the number of deaths remained very high, increasing from 3,279 in 2014 and 3,246 in 2015 to 5,083 in 2016, the highest level ever recorded. Between 2000 and 2008, the highest number of deaths was recorded on the western route. Post-2008, however, the largest number of deaths occurred on the central route.

Part of the variation in death tolls, both over time and between routes, is due to fluctuations in the number of migrants. The number of crossings is highly volatile and responsive to push- and pull factors in the respective countries of departure and destination (De Bruycker et al., 2013; Fargues and Bonfanti, 2014). The total number of deaths in a given region or period does therefore not provide much information about the actual risk involved in crossing. In the next section, we will compare the number of deaths to the number of migrants attempting the crossing.

Arrival data and patterns

In order to calculate the relative risk involved in forced migration, we need to know the number of fatalities as well as the number of people that attempted the crossing. Data on arrivals is collated and provided by various organizations, notably the European Border and Coast Guard Agency (Frontex), the IOM and the United Nations Refugee Agency (UNHCR) (see Appendix Table 2).

All three organizations provide information on migrant sea arrivals in Europe. Yet, as IOM "harmonizes" the data of the Migration Flows Europe page with the UNCHR portal, these two should not be understood as alternative sources. Both provide data on arrivals as of 2014. Information provided includes the nationality of migrants as well as the date and country of

arrival. UNHCR also provides a breakdown by age (minor/adult) and gender. Frontex records 'detections of illegal border crossings' since 2009, based on data provided by member states. The Frontex database is the official source on migrant arrivals in Europe and covers the longest time period, which is why the analyses presented in this study are based on this data⁷.

Figure 2 displays the monthly number of arrivals (border crossings) as reported by Frontex. It is important to pay attention to the different scales on the y-axes: while the number of monthly arrivals during this period never exceeded 2,000 on the western route, the eastern route saw over 200,000 arrivals during a single month (October 2015). These graphs show that there is a seasonal pattern in the number of arrivals on each route, with fewer arrivals in the winter months. They also show different longer-term time trends for each route. While the western route shows a relatively constant pattern of seasonal fluctuation, the central route has seen structurally higher numbers of arrivals since 2014. Arrivals through the eastern route were largely concentrated in 2015, and remained at a low level following the closure of the Balkan route and the implementation of the EU-Turkey agreement in March 2016 (see the next section for a more detailed discussion) (den Heijer et al., 2016).

The risk of crossing

By combining data on the number of fatalities and the number of arrivals, we can calculate relative risks or mortality rates. The mortality rate represents the actual risk involved in

⁷ It is important to note that the data provided by Frontex refer to the number of (external) border-crossings rather than the number of individuals. We are only concerned with sea-crossings, however, where the likelihood of the same person making the crossing several times is probably very low. For a more in-depth discussion of challenges in collecting arrival data see Laczko et al. (2016).

crossing, and can thereby provide an important contribution to our understanding of irregular migration. Following Carling (2007), we define the mortality rate (MR) as:

$$MR_{tr} = \frac{F_{tr}}{D_{tr}} \times 1000$$

where D is the number of attempted crossings in year t and route r , and F is the corresponding number of fatalities. Because D is not observed, it is approximated by the number of arrivals plus the observed number of fatalities. Using the above methodology, the overall MR in the period for which we have data (2009-2016) was 8.75 per 1,000 attempted crossings, or 1 out of 114. Moreover, by calculating the MR in this way, we can observe how the risk involved in crossing differs between routes and time periods. Before doing so, however, we would like to point out a number of limitations that need to be taken into account in their application and interpretation.

First, to calculate relative risks, one needs reliable information on both the number of migrants that attempt the crossing and the number that die in the attempt. As described above, however, data on border deaths and irregular border crossings is by definition incomplete and subject to measurement error. It is likely that the number of deaths and missing migrants (the numerator) is underestimated to a larger extent than the number of attempted crossings (the denominator). The mortality rates presented in this paper thus provide a lower bound, and the actual risk of crossing is probably higher. That being said, as long as the methodology for data collection is consistent across time and space, there is no reason to assume time trends or relative differences (e.g. between routes) will be biased⁸. Second, because migrants generally attempt the crossing in groups rather than alone, mortality risks are not statistically independent: the survival chances

⁸ This assumption is violated, of course, if the method of tracking and registering dead and missing migrants improves over time. In that case, an increase in the mortality rate may merely be a function of the improvements in data collection.

of migrants crossing in the same boat are highly correlated. As a result, mortality statistics calculated over a short period may be biased by one or more high-casualty accidents, and not reflect the actual risk faced by migrants during that period (or, vice versa, the absence of deaths in a given timeframe does not necessarily imply that the risk was zero). This problem becomes more pronounced when 1) migrants travel in larger boats, and thus the degree of 'clustering' is higher and 2) the number of attempted crossings is smaller.

Consequently, mortality statistics that cover short time periods or periods with few attempted crossings should be treated with caution, because they may not be reflective of longer-term trends. When applied in an inappropriate way, mortality rates can easily lead to misguided conclusions and policy prescriptions. We therefore advise that they should always be supported by in-depth case studies and contextual knowledge. Moreover, they should be based on the most accurate data available and calculated over extended periods of time.

Taking these caveats into account, we calculated mortality rates by year and route, and plotted them in Figure 3. Figure 3 shows that mortality rates strongly differ between routes. The eastern route has consistently been the least dangerous, and the central route the most dangerous. In peak year 2015, the risk of dying on the central route was over 19 times higher than on the Eastern route (15.4 vs. 0.83 out of 1,000 crossings). The reasons for these differences lie in the length of the routes and means of operation of smugglers (Dearden et al., 2016; Pastore et al., 2006).

Contrary to Fargues & Bonfanti (2014), who argued that relative risks continuously increased between 1998 and 2014, we find no clear time trend in the overall MR. Instead, it appears that crossing has always involved a high risk, particularly on the central and western routes, although there is considerable variation between years. It is particularly worrying that the MR on the central route appears to have increased substantially in 2016, which saw a relatively

high number of arrivals (see Figure 2). During this year, 24.6 out of 1,000 migrants (or one in 41) died on this route. The overall mortality rate was lowest in 2015, mostly because the increase in arrivals during that year was concentrated in the comparatively safer route from Turkey to Greece (see also Brian and Laczko, 2016). Contrary to differences between routes, variations over time in the risk of crossing cannot be explained by geographic factors. While part of it may be the result of random fluctuation, changes in smugglers' strategies and operations are also likely to play a role. For example, it was suggested that the 2016 increase in mortality on the central route was related to the emergence of a militia-led smuggling model in Libya, which had even lower regard for migrants' lives (Heller and Pezzani, 2017)⁹. Moreover, mortality rates may be affected by European border policy, as we will discuss in the next section.

Border Deaths and Border Policy: What We Can Learn from the Most Recent Data

The opposing policy narratives outlined in the introduction are not abstract discourses: they inform and legitimize policy decisions. Such narratives provide "the assumptions needed for decision making in the face of what is genuinely uncertain and complex" (Roe, 1994: 51). In the highly contentious debate over migrant deaths, proponents of each faction do not only mobilize moral affects, but also make claims about the expected relationship between policy interventions and migrant mortality. Two emblematic examples in this regard are the debates related to the supposed 'pull factor' emanating from Search and Rescue (SAR) missions and the effectiveness of deterrence measures such as the EU-Turkey agreement in preventing migrant death. In both cases, advocates of the 'humanitarian' and 'deterrence' perspectives have taken

⁹ For an extensive discussion on the complex interaction between smugglers' strategies, border policing practices and their potential consequences for mortality, see the recent investigative report 'Blaming the Rescuers' (Heller and Pezzani, 2017).

linearly opposed views, informed by their respective framing of the issue.

Our focus here is not on how such policy narratives are constructed or how they resonate with the institutional interests and traditions of the actors involved (Boswell et al., 2011; Carling and Hernández-Carretero, 2011). We rather seek to evaluate the plausibility of their empirical claims, using the data on border deaths and mortality risks described previously. Before doing so, however, we would like to mention a number of caveats that apply when seeking to establish the association between particular border policies and mortality rates.

First, border deaths may result from a combination of border policies and a number of other factors, including smuggling operations as well as the root causes ("push factors") of forced migration (del Valle, 2016; den Heijer et al., 2016). Since these other factors are difficult to measure and subject to constant change, it is almost impossible to disentangle their impact from that of the policy we are trying to assess. Second, border policy might have an impact on both the risk involved in crossing and the number of people attempting the crossing. The same policy (e.g. SAR) might prevent deaths (numerator), but also increase the number of attempted crossings (denominator), making its effect on the overall death toll difficult to isolate. Finally, migrants and smugglers may respond to deterrence efforts in ways that increase mortality risks, for example by diverting to longer and more dangerous routes (Mainwaring, 2016; Spijkerboer, 2007). The combination of these factors makes it difficult to assess what the death toll would have been under a different policy regime.

Aware of these challenges, we provide descriptive statistics on border deaths and arrivals before and after specific EU border policy measures. In particular, we will focus on two of the most controversial policy decisions of the past few years: the decision to significantly reduce SAR operations in November 2014, and the EU-Turkey deal of March 2016.

Search and Rescue and the 'pull factor hypothesis'

A frequently heard argument from the 'deterrence' camp relates to the role of Search and Rescue (SAR) activities as a potential 'pull factor' for irregular migration (del Valle, 2016). Several leading politicians, including senior EU leaders, have claimed that the presence of rescue boats close to the Libyan coast serves as a "magnet" or even a "bridge to Europe" (Anetzberger, 2014), tempting smugglers to send larger numbers of migrants in increasingly unseaworthy vessels, thereby increasing the overall death toll. Most recently this view was expressed by Frontex-chef Fabrice Leggeri, although this time in relation to NGO rescue operations (Wintour, 2017b). Humanitarian organizations have strongly criticised this claim, arguing that it is rather the insufficiency of SAR capacity that causes the large number of deaths:

"The argument that rescuing people and improving reception conditions will encourage more people to migrate to Europe is not only erroneous; it is also, above all, dangerous. People fleeing war, human rights violations and extreme poverty will continue to attempt to reach Europe whether or not States try to stop them. Refraining from assisting them only results in more obstacles, more suffering and more deaths at sea and in transit" (Medecins Sans Frontieres, 2015: 53).

In our analysis we focus on the central Mediterranean route, where most accidents and deaths take place. Over the past few years, we can identify three different phases in Search and Rescue activity in this area. Mare Nostrum (October 2013–October 2014) was a comprehensive SAR mission with an explicit humanitarian objective, managed by the Italian navy. During its operational period, the mission rescued over 156,000 people, often operating close to the Libyan coast (Cusumano, 2017: 92). Heller and Pezzani (2016) provide a detailed reconstruction of how 'pull factor' arguments informed the EU's decision not to (co)fund an extension of Mare Nostrum, which eventually led to the discontinuation of Mare Nostrum and its succession by

the new Frontex operation Triton. Triton was primarily a mission to combat crime and secure the EU's external borders, and not explicitly designed as a SAR mission (Tazzioli, 2016). Moreover, it had a much smaller budget and rescue area compared to Mare Nostrum, effectively creating a vacuum in SAR capability (Heller and Pezzani, 2016). Following two large-scale accidents in April 2015, Triton was substantially upscaled and expanded. Around the same time, a number of NGOs started operating SAR missions in the area (Cusumano, 2017), so that as of June 2015 rescue capacity returned to about the same level it had been during Mare Nostrum (this phase is here referred to as 'Triton II').

In order to assess the pull factor hypotheses, we compare the low-SAR period (November 2014–May 2015, just after the end of Italy's Mare Nostrum operation and before the upscaling of Triton) to the period before and after, during which time there was a comparatively high number of SAR operations. Because migration is seasonal (there are more arrivals in summer than in winter, other things being equal), we only look at arrivals in the equivalent months (November 2013–May 2014 and November 2015–May 2016). If SAR operations do encourage more arrivals and increase risks (e.g. due to overcrowding or the use of lower quality boats), we would expect more arrivals and higher mortality risks in the high-SAR periods.

The findings (Figure 4) show that the number of arrivals in the low-SAR period was not lower than in the equivalent high-SAR periods, as predicted by the pull factor hypothesis. In fact, arrivals were slightly higher in the low-SAR period. Most importantly however, we can observe that at 27.9 per 1,000, the mortality rate was substantially higher in the low-SAR period (Triton I) than in the periods before (20.6) and after (17.9). The high mortality rate during Triton I is largely the result of two large accidents on 13 and 18 April 2015, with estimated casualties of 400 and 750 people respectively. However, it would not be appropriate to treat these accidents as outliers that were unrelated to the (absence of) SAR capacity. The excellent 'Death by Rescue' investigative report by the University of London's Forensic Oceanography department

(Heller and Pezzani, 2016) analysed the circumstances of both accidents, using multiple sources such as photos, interviews with shipwreck survivors, rescue vessel crews, statistical data, GIS locations and internal reports by national authorities. It concluded that the deaths could have been prevented, had a more extensive and explicit SAR mission been in place:

‘[the EU's] policy of retreat from state-led Search and Rescue (SAR) operations shifted the burden of extremely dangerous search and rescue operations onto large merchant ships, which are ill-fitted to conduct them. In this way, EU agencies and policy makers knowingly created the conditions that led to massive loss of life in the April shipwrecks.’

In combination, these results strongly suggest that SAR operations reduce mortality risks (or conversely, the absence of SAR operations leads to more deaths), and have little or no effect on the number of arrivals (Heller and Pezzani, 2016, 2017).

While the negative relationship between SAR and mortality rates is intuitive, the lacking 'pull' effect on the number of attempted crossings can be explained by the nature of migration across the Mediterranean. Various studies have noted that 'push factors' in the countries of origin and personal aspirations play a far more important role in migrants' decision-making than the availability of SAR capacities, about which they generally have little or no information (Crawley et al., 2016; Squire et al., 2017). Particularly in the case of Libya, a further push factor relates to violence and harassment at the point of departure, which drives migrants towards a sea exit regardless of the risks involved (Andersson, 2017).

The EU-Turkey agreement

Another controversial aspect of European border policy is the agreement between the EU and Turkey, which was implemented in March 2016. The agreement entailed that every refugee

arriving in Greece from Turkey would be returned and in turn, a Syrian refugee would be directly resettled to the EU. In compensation, Turkey would receive a total of EUR 6 billion from the EU, as well as various political concessions. As Figure 2 shows, arrivals to the EU via the eastern route have been reduced to low level following its implementation, although some observers have argued this decrease would have occurred even in the absence of the agreement (Spijkerboer, 2016)¹⁰.

In spite of its questionable human rights implications, the European Commission explicitly framed the agreement as an attempt to reduce border fatalities: "Most importantly, the number of lives lost in the Aegean Sea has come down markedly; before the EU-Turkey Statement, for example, in the month of January there were 89 lives lost at sea, whereas since 20 March seven lives have been lost at sea, even if this is still seven too many" (The European Commission, 2016).

This argument, of course, rests on the assumption that those prevented from making the journey to Greece (and thus exposing themselves to risk) would not attempt to make the journey elsewhere. Various observers expected migrants to look for alternative routes into Europe. In particular, it was expected that refugees from Syria and other conflict zones in Asia and the Middle East would increasingly frequent the central route (Yardley, 2016). The human consequences of such a shift would be potentially disastrous, because the central route is far more perilous, as we demonstrated before. As an illustration: if the eastern route would have had the same mortality risk as the central route in 2015, 11,327 rather than 734 people would have died. Somewhat surprisingly, however, arrivals data from Frontex suggest that no such shift has occurred, at least until December 2016 (see Figure 2). Although the number of arrivals

¹⁰ Another factor contributing to the reduced number of crossings has been the closing of borders throughout the 'Balkan route', which reduced incentives for migrants to make the crossing to Greece.

increased from April to July 2016, this is consistent with the seasonal pattern observed in previous years. Moreover, the composition of those attempting the central route has not changed (see Figure 5): it mainly consists of Sub-Saharan Africans. The number of Middle Easterners and Asians crossing to Italy has been low in recent years, and showed no notable increase following the implementation of the EU-Turkey deal.

This finding is somewhat puzzling, especially because the wars in Syria, Iraq and Afghanistan continued unabated, or even intensified during this period. It is possible that Asian and Middle Eastern migrants do not have access to the information and networks required to attempt the crossing to Italy, that they consider the cost and risk involved (both in Libya and during the crossing) too high, or are blocked in transit countries as a result of the externalization of European border protection. It could also be that those most willing and able to afford the journey already made the crossing from Turkey in 2015.

The Turkey deal and related EU efforts to restrict irregular migration are on-going, and it is thus too early to draw any definite conclusions regarding its impact on mortality. It is possible that the agreement will collapse, or that Syrians and others fleeing the conflicts in the Middle East will find other (and potentially more dangerous) routes to enter the EU. Most importantly, it is paramount to remember that those who are prevented from crossing are generally not safe but remain subject to precarious and often lethal conditions in countries of transit (International Organization for Migration, 2017).

Conclusion

We started this study by describing how border deaths have come to play a pivotal role in the contentious debate surrounding the 'migration crisis' in Europe. In this debate, two diametrically

opposed policy narratives have emerged, each of which are informed by fundamentally different interpretations of the crisis. Those employing a deterrence narrative primarily frame the crisis in terms of enforcement and security, and argue that closing the border is the most effective way to reduce the death toll. In contrast, the second narrative emphasises the humanitarian aspect of the crisis, pointing out the needs and basic rights of forced migrants and advocating for safe and legal passages as well as more extensive SAR as a means of preventing further deaths.

Thus far the deterrence narrative has prevailed, resulting in a number of controversial policy responses by the EU and its member states. Restrictive policies such as the EU-Turkey agreement and the more recent collaboration with the Libyan Coast Guard (Wintour, 2017a) were explicitly framed as measures to prevent further deaths, even though they have received strong criticism from human rights advocates.

In spite of the staggering number of deaths and the recurrent public debates, the academic community has devoted remarkably little effort to the quantitative analysis of border deaths. Most of the extant literature discusses border deaths from a legal or critical theory perspective, generally without engaging the sources of information described in this article. Although we recognize the value of these approaches, we believe that both the academic and the public discourse would benefit from a more thorough and careful consideration of statistical data.

This study has provided descriptive evidence relating to a number of key social and political questions, and assessed the potential and limitations of the available data. In the critical research tradition, the quantification of human suffering is sometimes blamed for producing a technocratic distance to individual cases, which needs to be deconstructed in order to re-humanize political debates. While being aware of the numbing effect of abstract numbers, we believe that a systematic understanding of the scale and drivers of border death is indispensable

to any informed discussion. In combination with case studies based on individual stories and experiences, quantitative data can make a powerful case for political action. Moreover, because numbers are already present in the public discourse—often in a selective or misleading way—it is important for migration scholars to assess their accuracy and place them in the appropriate context.

Keeping in mind the shortcomings of the data and the ongoing nature of the issue, some of the key conclusions and recommendations that can be derived from our analyses are:

1. The humanitarian crisis in the Mediterranean continues unabated and is, given the current geo-political circumstances, unlikely to end anytime soon. The annual number of deaths has continuously increased in the period of observation, reaching its highest level ever recorded in 2016. In spite of an apparent reduction in 2017, continued monitoring and analysis of border deaths remains of utmost importance.
2. There are large and relatively stable differences in mortality rates between routes, with the central route consistently the most dangerous. Closing the Eastern route not only deprived war victims of their only way to safety, it also did little to bring down overall death tolls, because the Eastern route was a comparatively 'safe' route. Meanwhile, the diversion of Middle Eastern and Asian refugees to the far more dangerous central route remains a real possibility.
3. Search and Rescue operations can substantially reduce relative and absolute mortality, while the absence of SAR does not discourage crossings. In this light, the political backlash against humanitarian rescue operations that emerged in the spring of 2017 appears completely misguided.
4. Many have argued that fighting the root causes of forced migration and creating safe and legal passages are the only ways to effectively address border deaths (Castles, 2004; del Valle, 2016; Medecins Sans Frontieres, 2015). We share this view, although it should be

acknowledged that neither of these measures is likely to provide an immediate solution. As suggested by Heijer et al. (2016) and others, these long-term initiatives should therefore be combined with immediate action to expand SAR capacity and improve the situation of migrants and refugees in transit countries.

5. Most missing migrants are never found or identified, and little is known about their origins. For families left behind, this creates additional pain and complicates the grieving process. Against this background, we can only express our support for the call to establish a European Migrant Death Observatory (Grant, 2011; Last et al., 2016)

In combination, our findings point out the continuing failure of European authorities to come up with a comprehensive response to the scenes of death and suffering at its southern border. Torn between its legal and moral obligations towards refugees and its intent to maintain control over its external borders, the EU's border policy has been both inconsistent and ineffective. More than 30,000 mostly young people have died in the space of sixteen years, a solution appears nowhere in sight.

Instead of addressing the fundamental causes of forced migration and the associated deaths, European authorities have capitalized on the 'migrant crisis' discourse to legitimize deterrence measures that are legally questionable, increased mortality risks and stimulated the smuggling economy, without achieving their stated objectives. It is important to remember that the overall number of migrants arriving on Europe's shores is relatively low, both in comparison to the European population and compared to the number of irregular migrants arriving through other means (Cosgrave et al., 2016). Indeed, the 'migrant crisis' is primarily a crisis of Europe's own making (den Heijer et al., 2016).

Although the humanitarian narrative has helped to shift the debate towards the rights and needs of the migrants themselves, a number of critical migration scholars have questioned the framing of border deaths as a humanitarian crisis. For example, the images of overfilled rescue boats

that are regularly distributed by humanitarian agencies may inadvertently contribute to the construction of migrants as an anonymous and helpless victims, rather than as autonomous individuals (Tazzioli, 2015). Moreover, treating border deaths as a primarily humanitarian problem that needs to be 'solved' by the relevant authorities may obscure its structural and political causes (Andersson, 2017; Cuttitta, 2017).

On a final note, to facilitate continued monitoring of border deaths and encourage evidence-based research and policymaking, we provide interested readers with direct links to the most recent data sources on an accompanying website ([Link](#)). Moreover, we provide a template for importing, formatting, analysing and visualizing this data in the widely used statistical software Stata (StataCorp, 2015).

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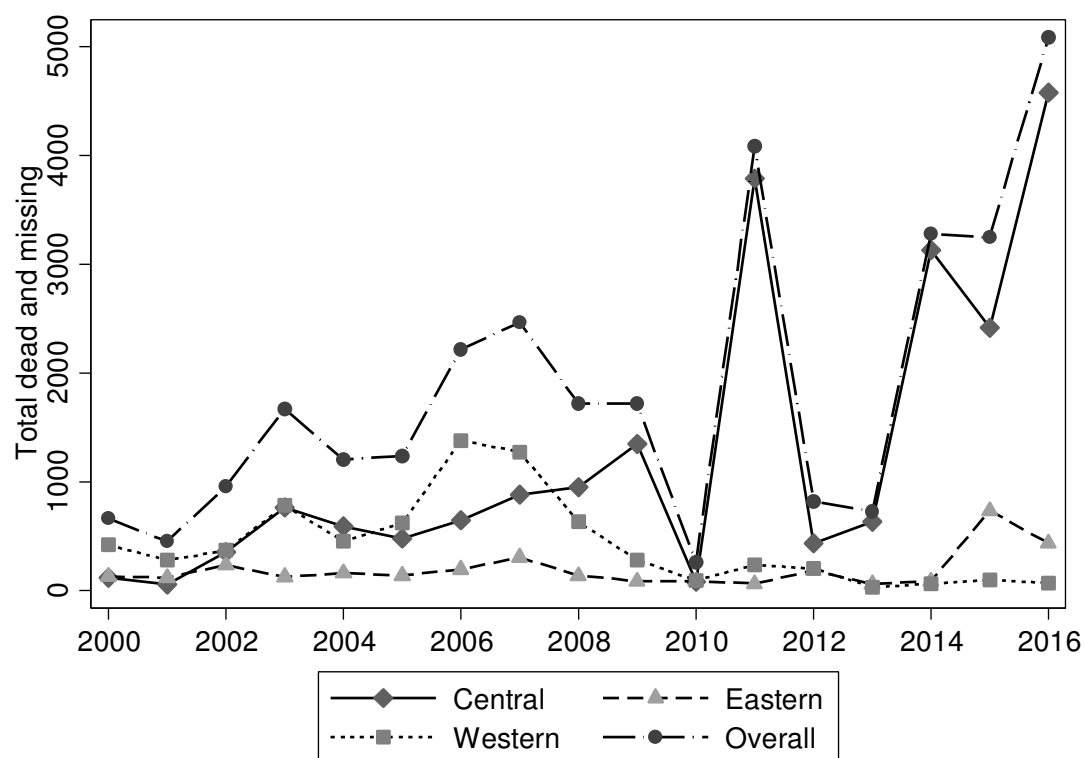
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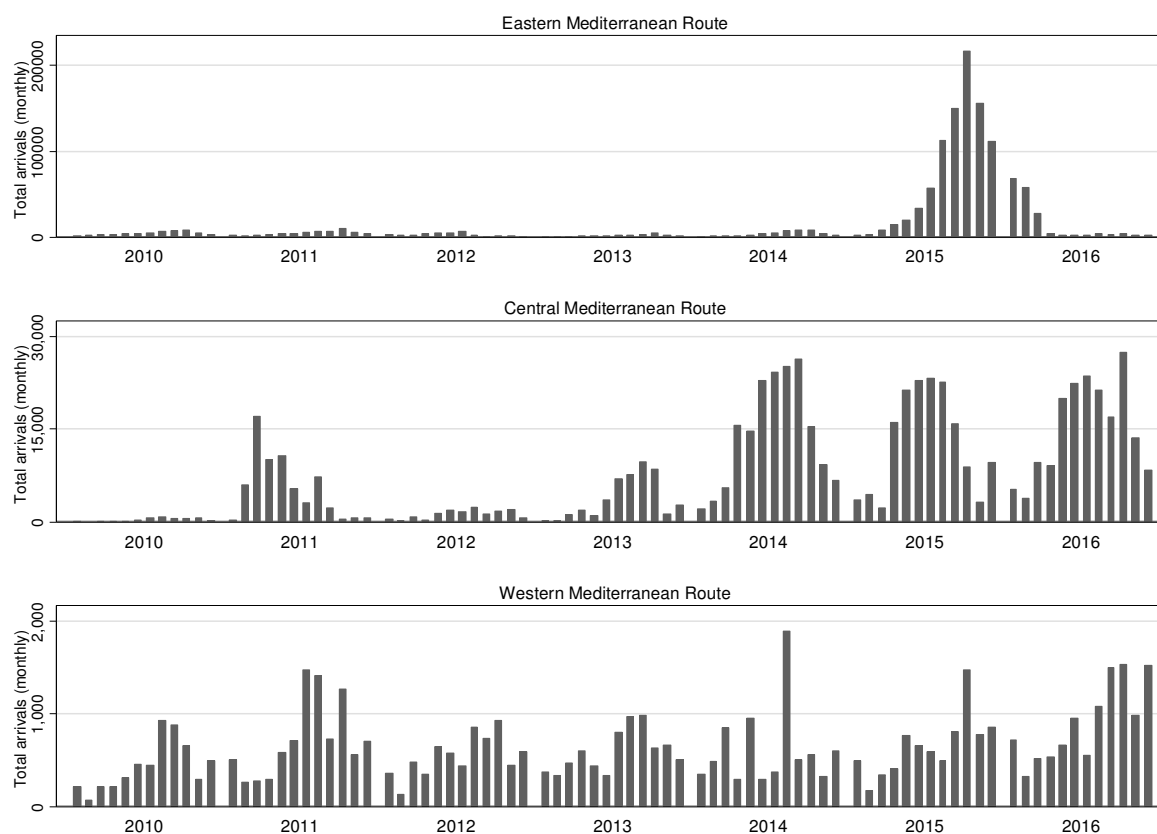
Figures

Figure 1: Migrant fatalities in the Mediterranean region, by year and route, 2000-2016



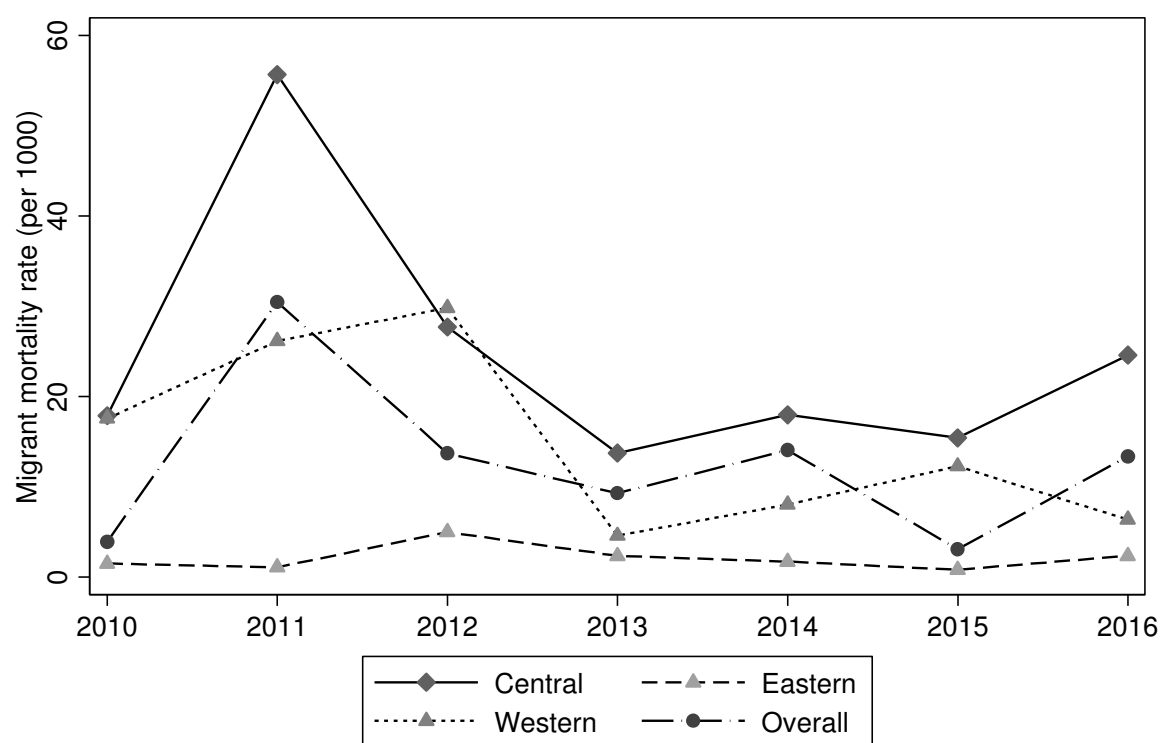
Source: The Migrants Files (2000-2013) and the IOM Missing Migrants Project (2014-2016).

Figure 2: Monthly number of arrivals 2009-2016, by route



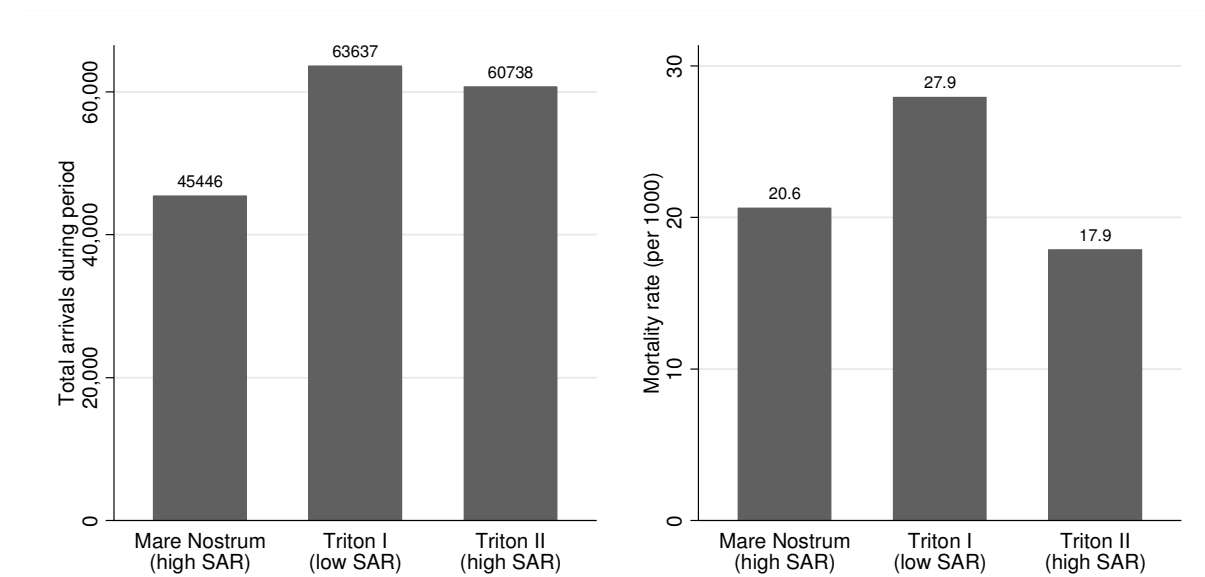
Source: Frontex 'Detections of illegal border crossings'

Figure 3: Mortality rates (relative risks), by year and route



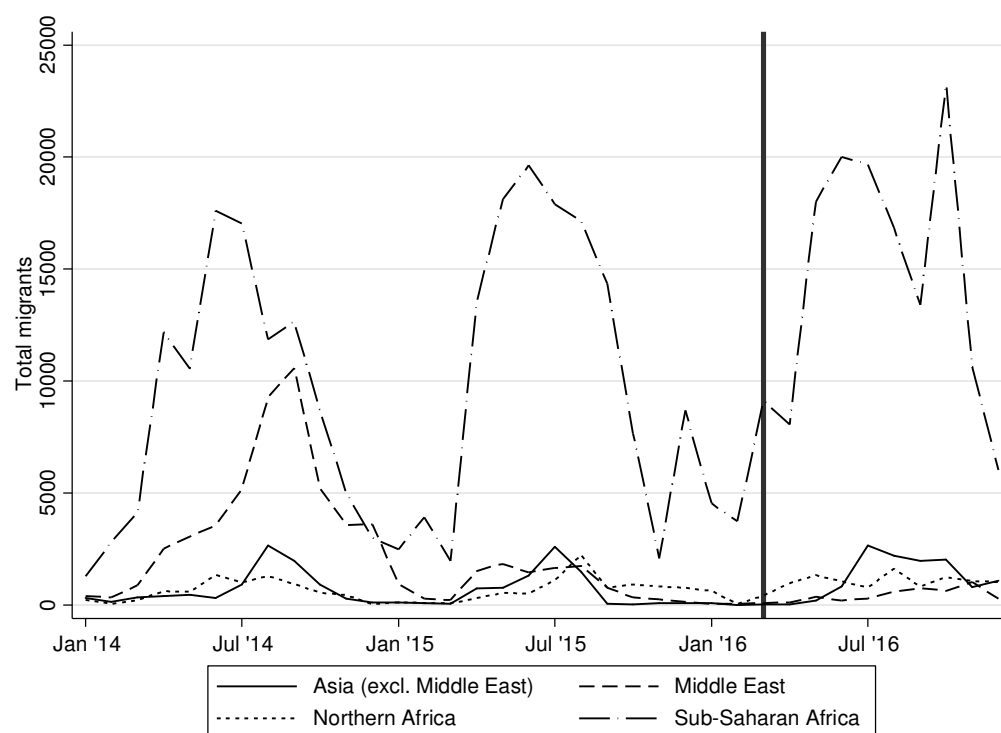
Source: The Migrants Files (2010-2013), IOM Missing Migrants Project (2014-2016) & Frontex 'Detections of illegal border crossings'.

Figure 4: Total number of arrivals (left) and mortality rate (right) by Search and Rescue (SAR) period



Note: Arrivals (left) based on equivalent months only (Mare Nostrum: Nov. 2013–May 2014, Triton I: Nov. 2014–May 2015, Triton II: Nov. 2015–May 2016). Mortality rates (right) based on the full periods (Mare Nostrum: Oct. 2013–Oct. 2014, Triton I: Nov. 2014–May 2015, Triton II: June 2015–Dec.2016)

Figure 5: Regional origin of arrivals on the central route, by month



Source: Frontex 'Detections of illegal border crossings'. The vertical line indicates the start of the EU-Turkey agreement.