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BLAMING MIGRANTS DOESN'T PAY: THE POLITICAL EFFECTS OF THE EBOLA EPIDEMIC IN ITALY

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Blaming migrants doesn't pay: the political effects of the Ebola epidemic in Italy

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Abstract

This paper investigates the political consequences of perceived health risks associated with immigration in Italy. We leverage the exogeneity of the 2014 Ebola epidemic, which resulted in almost no cases in Italy but triggered a significant public reaction, with extreme right-wing politicians claiming ongoing immigration could endanger citizens' health. In a differences-in-differences framework, we examine the changes in the vote share of the main right-wing and anti-immigration party, Lega, across Northern Italian municipalities before and during the Ebola outbreak. Treatment is based on perceived exposure to risk-Ebola immigrants, proxied by the local historical concentration of immigrants from countries affected by Ebola in 2014. Results document a drop in political support for Lega in municipalities with a larger share of risk-Ebola migrants. Our findings, robust to falsification tests and alternative treatment definitions, suggest that strategically exploiting a health crisis to garner support for anti-immigrant policies can eventually backfire.

Keywords— Refugees; Immigration; Ebola; Voting; Political Economy; Populism; Electoral campaigns

JEL codes— D72; F22; D91; J15

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1 Introduction

During epidemics, controlling mobility is crucial, especially with viruses traveling alongside people. In these contexts, immigration, a specific form of mobility, becomes prominent, particularly when originating from countries with heightened epidemic risks. Immigrants may be seen as potential carriers of contagion in unaffected regions, leading to shifts in attitudes, behaviors, and voting preferences due to heightened perceptions of contact with 'disease importers'. In these cases, however, it is not always clear whether health concerns driving preference shifts are empirically grounded or, rather, stem from misperceptions, often exacerbated by biased media narratives and/or anti-immigration political campaigns. This paper offers a novel contribution by showing that an anti-immigration party, leveraging a globally resonant epidemic with high *perceived* contagion but lacking substantial *real* health implications, can ultimately erode its own public consensus.

To isolate the impact of risk perceptions on voting preferences, from an empirical perspective, an ideal experimental setting would require an exogenous shock that changes citizens' contagion *expectations* while leaving their *actual* health risk exposure unaffected. Compared to the recent COVID-19 outbreak, which escalated health risks globally, the 2014 Ebola epidemic is a pertinent example and well-suited test bed. Notably, the Ebola crisis did not significantly increase health risks in regions geographically distant from West Africa, such as Italy. However, this external shock, coupled with the threat-based media narratives surrounding it, succeeded in heightening the *perceived* health risks among Italians despite the absence of any substantial and demonstrated hazard to their health.

In late 2014 - early 2015, despite only two documented Ebola cases in Italy by the World Health Organization (WHO), the virus received significant media coverage in Italy. It soon became linked to immigration, not due to Italy's frequent exposure to immigration but, rather, as a strategic move by extreme right-wing parties, most notably the Lega party, aiming to capitalize on the alleged interconnection between the immigration and health crises. This political maneuver aimed to heighten citizens' perceived threat, garnering support for stricter anti-immigration policies. Despite public health experts clarifying the low risk of an uncontrolled outbreak in Italy, fear and anxiety spread rapidly following news of the Ebola outbreak in Africa. Far-right politicians fueled these emotions, criticizing the center-left government for rescuing African refugees,

whom they publicly blamed as potential disease spreaders.

Against this backdrop, the Ebola outbreak provides a unique opportunity to examine the political implications of heightened perceived health risks, especially in a context where contagion, if any, may primarily result from external factors, notably immigration. While previous research extensively documents the political consequences of immigration and anti-immigration campaigns[1], the extent to which political campaigns, in times of health crises, leverage citizens' fears of contagion—strategically pointing to immigrants from high-contagion areas as potential infection carriers—remains, to the best of our knowledge, an open question.

To assess the political effects of the 2014 Ebola epidemic in Italy, we rely on a Differences-in-Differences (DiD) approach, leveraging data from two waves of local elections (conducted in 2009 and 2014), supplemented by an antecedent electoral round (in 2004) that allows us to test for non-significant pre-Ebola trends. We measure changes in the vote share accrued by the leading far-right and anti-immigration party (i.e., Lega) across the municipalities in Northern Italy, where the party is historically rooted, over time, before and after the Ebola outbreak. Treatment intensity hinges on the geographical variation in the density of historical (pre-2014) clusters of immigrants from countries that will later be affected by the Ebola epidemic (i.e., West African countries).

Our identification strategy rests on the expectation that heightened media coverage of immigration-related facts and the Ebola epidemic leads to increased salience of this topic (and all related political campaigns), particularly among residents of municipalities hosting a high proportion of immigrants from West African countries. Successful political strategies exploiting this heightened awareness can amplify perceived health risks linked to immigration, resulting in a corresponding increase in support for parties advocating more stringent anti-immigration policies. This effect is expected to be more pronounced in areas with greater exposure to immigration from Ebola-risk countries. In this scenario, heightened health risk perceptions could operate through two potentially concurrent channels. First, residents of municipalities with more immigrants from West Africa may perceive themselves at higher risk due to the increased likelihood of interaction with this group of immigrants within their local area. This perception is primarily driven by the heightened visibility of the *current* stock of West African immigrants already residing within the municipality, due to the Ebola outbreak. The latter makes the pres-

[1]See Alesina and Tabellini (forth.) for a review.

ence of West African residents more salient, coupled with the (mistaken) belief that this group of migrants may be a carrier of a dangerous disease. Second, citizens from these municipalities may anticipate an imminent rise in the arrivals of migrants from West Africa fleeing high-Ebola prevalence countries. As migrants tend to settle in areas with established co-national networks (Altonji and Card, 1991, Barone et al., 2016), they are more likely to come into contact with people arriving from currently infected areas. Consequently, the increased probability of interacting with contagious individuals may heighten the perceived health risks associated with *prospective* immigration.

In either case, the Ebola outbreak is expected to have the most pronounced impact on altering health risk perceptions in municipalities with a significant presence of West African immigrants. Alternatively, political support for anti-immigration parties may decline if residents in those municipalities, despite initially being more engaged or concerned due to the described risk perception channels, remain unconvinced by the (malicious) anti-immigration narrative. These citizens, by having relatively more frequent interactions with migrants from West Africa, may swiftly recognize or directly experience the lack of any substantial health threat, fostering political distrust towards parties endorsing such narratives.

Our findings suggest that the latter interpretation aligns more closely with the empirical evidence on citizens' voting behavior. According to our preferred DiD specification, in municipalities with an above-median proportion of risk-Ebola migrants, support for Lega decreases by approximately 1.2 percentage points compared to municipalities with lower exposure to risk-Ebola immigration. Additional findings indicate a corresponding decline in support for extreme-left parties and a significant increase in the vote share for moderate left-wing parties. Notably, the Ebola's political impact is not long-lasting; when we extend our analysis to include post-Ebola municipal elections, we no longer find statistically significant treatment effects.

Results are robust to falsification tests in which treatment intensity is based on exposure to immigration from countries (well) outside the West Africa region and are not driven by the endogenous sorting of West African migrants into specific municipalities where they might enjoy more favorable conditions. Our main findings are also confirmed under an alternative identification strategy exploiting the geographical variation in municipalities' proximity to refugee reception centers (RRCs), aiming to measure the effect of voters' (perceived) exposure to current or prospective (potentially) *irregular* immigrants, as proxied by the distance to refugee

centers. Since results where treatment intensity is defined on the presence of regular (share of West-African residents) and potentially irregular (distance to RRCs) immigrants converge, we can exclude that the legal nature of immigration plays a role.

Overall, our findings suggest that strategically exploiting a health crisis to garner support for anti-immigrant policies, portraying migrants as a threat to the nation's health security, can eventually backfire. In line with the "rally 'round the flag" hypothesis (Bol et al., 2021), this suggests that, during (health) crises, citizens increase demand for political stability and support for established and more moderate parties, which they believe to be best placed to help the country navigate through the consequences of unexpected shocks (Leininger and Schaub, 2023). In our case, the decline in political support experienced by the extreme-right party under examination can be attributed to a loss of credibility. Voters may have realized that the purported connection between immigration and the Ebola virus, as put forth by that party, was contrived solely for political gain and did not accurately represent the party's actual position on that matter (Fernandez-Vazquez, 2019) (and/or the realm of facts). Additionally, these anti-immigration narratives may be perceived as excessively extreme, unethical, or blatantly false (Boldrini et al., 2023), particularly in regions where voters have had repeated contact with the scapegoated minority. In these areas, voters are more likely to have a firsthand experience to observe that West African immigrants historically residing in their own city are, in fact, not to blame for the (genuinely external) Ebola crisis.

Our work fits into the growing literature looking into the political impact of the Ebola crisis on voters' behavior (Campante et al., 2023, Beall et al., 2016), anti-immigration sentiments (Adida et al., 2020), trust in institutions (Fluckiger et al., 2019, Gonzalez-Torres and Esposito, 2020), and export activities (Kostova et al., 2019). As in Campante et al. (2023), we study the electoral effects of an epidemic in a country not directly affected by the breakout of the disease, to isolate the impact perceived health threats *per se* have on voting behavior. Differently from their study, which focuses on a highly polarized country such as the US, our analysis examines voters' reactions to a perceived health shock in a different political context, characterized by the presence of a wide array of parties, often sharing the same ideological roots, and hence a relatively low cost of shifting parties for disappointed voters. Moreover, unlike the aforementioned studies, this paper also contributes to our understanding of the *persistence* of political effects following a health shock: our estimates suggest that these effects are short-term.

More generally, this paper also adds to the literature documenting changes in satisfaction with political parties and institutional actors during severe crises (Atkeson and Maestas, 2012, Healy and Malhotra, 2013, Getmansky and Zeitzoff, 2014, Albertson and Gadarian, 2015, Vasilopoulou and Wagner, 2022). However, we focus on a specific channel through which external disruptive events can have political consequences: by responding emotionally to crises and the ensuing political discourse, voters can channel these emotions into their subsequent voting behavior. We investigate this perspective in a context where individuals face a 'dual' challenge, made up by the combination of the perceived threats posed by immigration on one side and from the global epidemic on the other. In this setting, political campaigns aiming to increase insecurity and vulnerability could boost anti-immigration attitudes, thereby increasing support for parties that propose more stringent immigration policies to deal with allegedly related health risks[2]. Hence, if voters were to express feelings of out-group hostility at the elections, we would expect an *increase* in vote shares of Lega. On the other hand, however, as recently observed during the COVID-19 pandemic (Porumbescu et al., 2023, Boldrini et al., 2023), such political campaigns can *backfire*. Voters realize that the contagion dynamics do not empirically mirror the immigration-related health risks alleged by extreme right-wing parties. Hence, distrust towards these parties might increase, and, under the threat of a shared and external enemy, citizens may prefer to "rally 'round the flag": support for more moderate and established political forces increases, as they are perceived as more reliable and trustworthy, hence better suited to implement effective health policies, calling upon national unity (Mueller, 1970, Oneal and Bryan, 1995).

This paper adds to expanding post-COVID-19 literature investigating the impact of pandemics on political outcomes (Mansour et al., 2020, Fernandez-Navia et al., 2020, Giommoni and Loumeau, 2020, Adam-Troian et al., 2020, Leromain and Vannoorenberghe, 2022, Picchio and Santolini, 2022, Leininger and Schaub, 2023). While these studies primarily focus on the tangible health risks associated with widespread disease transmission, they cannot disentangle whether, and to what extent, the observed political effects are driven by (mis)perceptions of health risks and/or actual increased infection probabilities. In contrast, our setting eliminates the latter as a potential confounder, allowing us to isolate and assess the exclusive role of (mis)perceptions in shaping political outcomes.

[2]Indeed, although migrants were not the key drivers of contagion, nationalist parties emphasized the need for stricter immigration policies, Italy being a paradigmatic example: https://www.theguardian.com/commentisfree/2020/feb/28/coronavirus-outbreak-migrants-blamed-italy-matteo-salvini-marine-le-pen.

Furthermore, our research also ties into the literature investigating the relationship between immigration and the increasing support for extreme-right parties. These studies focus on labor market competition (Barone et al., 2016, Halla et al., 2017, Edo et al., 2019) and rivalry in benefiting from welfare and public services (Otto and Steinhardt, 2014, Halla et al., 2017, Levi et al., 2020) as main channels through which the conflict between natives and immigrants arises, shaping voters' choices and leading to an increase in the share of votes for right-wing and populist parties. Within this literature, numerous studies have exploited the information on refugee reception centers' location to examine the political effects of geographical proximity to incoming migrants. With the notable exception of Vertier et al. (2023), the collective findings generally indicate that increased proximity correlates with heightened anti-immigration attitudes, which are often reflected in their voting behavior (Dinas et al., 2019, Dustmann et al., 2019, Hangartner et al., 2019, Bratti et al., 2020, Steinmayr, 2021, Gamalerio and Negri, 2023). This paper adopts a similar empirical approach, leveraging proximity to refugee centers as an additional treatment to assess the political effects of risk-Ebola-immigration exposure. However, our study diverges in its outcomes, providing novel insights into the factors that may cause political parties seeking to bolster support for anti-immigration policies to experience a decline in public consensus. Our results suggest that scapegoating migrants, especially in the midst of a crisis like a health emergency, can indeed trigger a political backlash.

Lastly, this study also speaks to previous research studying how electoral outcomes are affected by (biased) expectations about prospective immigration (Newman and Velez, 2014), often due to the way migration is covered by the media (Benesch et al., 2019) and the spread of fake news (Barrera et al., 2020, Cantarella et al., 2023) designed to boost immigration worries. We provide novel empirical evidence suggesting that inflating extreme anti-immigration narratives in the media can also be politically counterproductive, especially for politicians trying to leverage a health crisis to increase their vote share.

The remainder of the paper is structured as follows. Section 2 describes the context and background of the Ebola crisis and the Italian institutional and political context. Section 3 presents the data and the econometric approach. Section 4 and Section 5 summarise the main results and the robustness checks. Section 6 concludes.

2 Background

2.1 Ebola outbreak: stylized facts & public reaction

On August 8, 2014, the World Health Organization (WHO) declared the Ebola outbreak a global public health concern (WHO, 2014). Originating in Guinea, this devastating epidemic quickly spread to neighboring West African countries such as Sierra Leone and Liberia. Over the course of the two-year epidemic, the virus also reached seven additional nations, including Italy, Mali, Nigeria, Senegal, Spain, the United Kingdom, and the United States of America. The emergency status persisted until June 2016, marking a challenging period during which more than 28,600 individuals were infected, and tragically, 11,325 lives were lost. Most Ebola cases and fatalities worldwide were concentrated in Guinea, Liberia, and Sierra Leone. As the virus began to spread beyond the initial outbreak region, the number of cases and deaths substantially decreased, with only 36 cases and 15 deaths reported in other affected areas.

Despite the relatively low number of Ebola cases recorded outside of Guinea, Sierra Leone, and Liberia, the Ebola outbreak garnered significant global media attention. In the United States, where only four confirmed cases were reported between September and October 2014, Ebola-related tweets during that period revealed the prevalence of negative emotions, including anxiety and anger (Fung et al., 2014). As reported by the Pew Research Center[3], the Ebola epidemic generated more news interest than any previous public health crisis. In the U.S., polls conducted in late October 2014 revealed that over half of the surveyed adults (52%) expressed concern about the possibility of a large Ebola outbreak occurring within their country in the following 12 months[4]. This concern was noteworthy, especially considering that a significant majority of survey respondents also believed that a person in their community would likely survive Ebola with immediate medical care.

Misperceptions about transmission mechanisms might have also played a role in exacerbating the public concern: many US citizens believed that Ebola could be transmitted through sneezing or coughing and that the virus could be transmitted even before the symptoms appeared. In reality, people are unlikely to get sick from someone sneezing or coughing, and the virus is

[3]Source: http://pewrsr.ch/1t4aEFI accessed on June 1, 2023.

[4]Harvard School of Public Health/SSRS. Ebola poll. Boston, MA: Harvard School of Public Health/SSRS, 2014. Available at: https://www.hsph.harvard.edu/news/press-releases/poll-finds-most-believe-ebola-spread-by-multiple-routes, Accessed on June 1, 2023.

not contagious before symptoms appear (SteelFisher et al., 2015). Given the negligible risk of infection, the anxiety about Ebola was most likely driven by perceived rather than actual dangers to the health of US citizens (Fung et al., 2014). The fear of Ebola may have been significantly exacerbated by media coverage, contributing to public confusion and misinformation on the topic[5]. This media focus diverted public attention to anxiety-generating topics. For instance, despite the successful control and containment of the virus within the United States, considerable attention was given to the few confirmed Ebola cases in the country. Tweets and media coverage predominantly centered on the US Ebola situation, with minimal emphasis on the simultaneous and severe humanitarian crisis unfolding in West African countries (Fung et al., 2014, Lancet, 2014). This discrepancy was not only observed in cable news outlets but was also prevalent in newspapers (Merino, 2014).

Interestingly, this form of overreaction and sensitivity to the topic was not specific only to the United States. Indeed, a poll conducted in seven European countries over the same period revealed that participants from Great Britain, France, and Germany had a level of concern similar to participants from the US[6].

Only two cases were officially diagnosed in Italy after the health emergency was declared. In late 2014 - early 2015, the media reported the first Italian case being an Italian doctor who contracted Ebola in Sierra Leone and was immediately treated and cured at Rome's Spallanzani hospital[7] upon his arrival in the country. At the beginning of May 2015, the WHO was notified of a second case of Ebola virus disease in Italy: a healthcare worker who developed symptoms after returning from an Ebola treatment center in Sierra Leone and was immediately treated at Rome's Spallanzani Hospital. In both cases, the two patients fully recovered and were declared disease-free after treatment.

Despite the limited number of cases and the almost null risk of contagion, the concern for a potential spread of the virus also heightened in Italy. A national poll revealed that more than 40% of Italians felt worried or very worried about the Ebola diffusion[8]. The Ebola epidemic

[5]See the Kaiser Family Foundation (KFF) poll October 8-14, 2014. Available at: https://files.kff.org/attachment/kaiser-health-policy-news-index-special-focus-on-ebola-topline-methodology, Accessed June 2, 2023.

[6]Source: French and Americans are most concerned about Ebola. London: YouGov, 2014. Available at: https://yougov.co.uk/topics/politics/articles-reports/2014/11/04/french-americans-most-concerned-about-ebola, Accessed June 1, 2023.

[7]The Lazzaro Spallanzani National Institute for Infectious Diseases is an institution specialized in infectious diseases.

[8]The data were collected by SWG in 2014, and aggregated results were made available to us upon

received significant media coverage and soon became a popular topic across social media, both alone and jointly with immigration-related news and discussions. Figure 1 (panels A and B) plots the dynamics of Ebola-reported cases and their association with occurrences of tweets covering either Ebola-only or Ebola-&-Migration related content, over the same period (2014-2016). The graph reveals that the salience of Ebola-related news among Italian users closely mirrored the evolution of the epidemic. Accordingly, a strong peak in the density of Ebola-related contents was observed at the end of 2014, after the first Ebola case was officially registered in Italy, and another small spike emerged in the weeks preceding elections (in May 2014), especially for what concerns contents related to Ebola and immigration.

[Figure 1 around here]

Figure 2 plots the evolution, over the same timeframe, of the unexplained variation in Ebola-&-Migration-related tweets' salience, after controlling for the evolution of the epidemics' curve [9]. An intriguing observation emerges from this analysis: in 2014, the year of the Ebola outbreak, there was a noticeable positive spike in the unexplained variation occurring just before the timing of administrative elections (Figure 2). If we assume that media attention on Ebola is mainly driven by the global count of infection cases (representing the real health threat to Italians), this finding suggests that a significant part of the spike in Ebola-and-Migration-related tweets during that period cannot be solely attributed to the *actual* health risk.

[Figure 2 around here]

Overall, these descriptive results reveal that the attention devoted by the Italian media to the Ebola outbreak closely mirrored the worldwide diffusion of Ebola, especially in countries most severely hit by the disease. Yet, the topic's popularity cannot be fully explained by the actual epidemiological evolution of the disease, measured in terms of reported cases. The dynamics of this unexplained component suggest that the Ebola salience in the media may have been inflated in some specific periods, such as after the peak of the epidemiological cycle (August 2014), when the 1st Ebola case was reported in Europe (late 2014), and - most importantly - in the weeks preceding the administrative elections (Spring 2014).

request. SWG and Dr. Fonda are gratefully acknowledged for sharing these data.

[9] More specifically, we plot the residuals obtained after regressing the count of Ebola-&-Migration-related tweets on the count of Ebola-reported cases over time.

An additional important fact for our identification strategy is that Ebola was particularly salient in those municipalities where citizens might have felt more vulnerable to imported contagion from West African immigrants. As shown in Figure 3, the occurrences of Ebola-related words on Twitter are more frequent in municipalities with large historical clusters of regular immigrants from West Africa[10].

[Figure 3 around here]

The higher concentration of West African immigrants in these areas likely contributed to heightening concerns about the risk of contagion. This increased apprehension can be attributed to the two channels mentioned earlier: increased expectations of disease transmission stemming from both *current* and *prospective* immigration. Furthermore, these perceptions of increased risk were likely influenced and possibly exacerbated by the messaging of extreme-right politicians. These politicians have strategically linked immigration, including regular and irregular immigration, to the health risks posed by Ebola. Figure 4 provides examples of such political narratives, where this linkage was part of a broader strategy to maximize support, particularly during the pre-election period.

[Figure 4 around here]

2.2 Institutional and political context

Local elections in Italy, which involve the replacement of the mayor, the municipal government, and the council, should regularly occur simultaneously in all Italian municipalities every five years. The mayoral election is conducted through either a single or dual ballot, depending on the size of the resident population[11]. The staggered timing of local elections we observe today is the product of (local) events that occurred over the past 70 years, causing some municipalities to experience early office termination. Indeed, despite almost all Italian municipalities voting simultaneously for the first time in 1946, after the end of World War II and the restoration of democracy, in many of them, the prescribed periodic renewal process for municipal councils did

[10]These municipalities are characterized by an above-median concentration of migrants from West Africa, relative to the total number of migrants from West-African immigrants in Italy (both measured in 2004).

[11]Cities with more than 15,000 inhabitants have a runoff stage among the most-voted candidates if none collects more than 50% of the votes in the first stage. Italy's municipal level of government includes over 8,000 authorities and corresponds to the lowest level of administrative government jurisdiction.

not follow the regular five-year rule[12]. The exact day of the election is chosen each year by the Minister of Internal Affairs, and falls within the period between April 15 and June 15, in case the mayor ceases to hold office during the first semester of the year (or within the same time span of the subsequent year, in case early termination cause occurred in the second semester of the year)[13]. Our study relies on data from four waves of Italian municipal elections taking place in 2004, 2009, 2014, and 2019.

The 'Lega Nord' party was established in 1991 as a federation of six regional parties in Northern and Northern-central Italy. Born as a right-wing regionalist party, it served in several governments led by Silvio Berlusconi with a political platform mainly focused on promoting fiscal federalism and regional autonomy (supporting the idea that Italy's wealthier North should have been separated from the poorer and less developed South). Although the party has been represented in the national parliament since 1992, it did not become successful until Matteo Salvini assumed its leadership. Under his guidance, a movement of regional separatism turned into a fully-fledged nationalist party, similar to the other main nationalist parties in Europe (e.g., National Front in France, Freedom Party in Austria, AfD in Germany). The new political campaigning was associated with extreme anti-euro and anti-immigration rhetorics, at the national and local level. The new slogan, *Italians first!*, replaced the old secessionist battle, and leaders of Lega started to repeatedly promise to expel all illegal migrants from Italy. At the beginning of April 2014, when the first cases of Ebola infection had already been reported by the WHO, during a question-time session at the EU Parliament, Matteo Salvini, who back then was serving as a European Parliament member, openly complained about the massive scale of migratory flows from the African continent to Europe, to a large extent illegal and quantified at a minimum of half a million migrants a year, emphasizing the consequent complications for health controls[14]. Subsequently, on different occasions, the leader of Lega, also explicitly associ-

[12]Early termination of the office, at different stages of the 5-years mandate, can be due to a number of different circumstances, such as mayors - or at least half of the councilors - resigning before the end of the term; dissolution due to suspected mafia presence in the council; merging with other municipalities; resignation, death, or serious impediment of the mayor; corruption episodes; excessive budget deficits or other severe law violations. All those circumstances force the municipality to call for early elections.

[13]The date has to be made public no later than 55 days from the day of the election, and there is no possibility of negotiation with the Ministry of Interior on this issue. The day of the elections does not depend on the area/region where the municipality is located.

[14]Available at https://www.europarl.europa.eu/doceo/document/E-7-2014-005070_EN.html. Accessed June 6, 2023. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C:2014:405:FULL&qid=1661860546044. Accessed June 6, 2023.

ated prospective refugee arrivals with a real and severe risk to the Italians' health, both during the Ebola and the more recent COVID-19 epidemic crises[15].

3 Methods

3.1 Data

Data on electoral outcomes are obtained from the Italian Ministry of Interior[16] and contain information on: the day of the election; the size of the electorate and turnout; the number of blank and null ballot papers; the number of candidates mayors and the share of votes obtained by all the parties running for local elections in each municipality. For all municipalities included in our sample, we collect additional information on: municipalities' characteristics, such as total population and number of resident immigrants by nationality, which is obtained from the Italian National Statistical Institute (ISTAT); and the amount of taxable income, available from the Ministry of Economy and Finance. To feed one of our additional analyses, based on an alternative empirical strategy, we also collect information on the location of active refugee reception centers (RRCs) across Italy over the years of interest[17].

3.2 Exposure to Risk-Ebola migration

We measure exposure to risk-Ebola immigration at the municipality level by exploiting the heterogeneity in the historical presence of immigrants' clusters, based on country of origin, across Northern Italian municipalities. We focus on the (officially) documented historical presence of migrants from West African countries, where the Ebola disease later spread, measuring their concentration at the municipal level in 2004, i.e., ten years *before* the outbreak of the epidemic. For each municipality i, we define our final treatment measure as the ratio between the count of (legal) resident migrants from "risk-Ebola" (RE) countries (*RE resident migrants*) and the

[15] See, for instance, https://www.huffingtonpost.it/politica/2014/05/06/news/matteo_salvini_contro_gli_immigrati_darei_a_loro_il_daspo_portano_scabbia_tubercolosi_ed_ebola_-6470532/, https://www.theguardian.com/commentisfree/2020/feb/28/coronavirus-outbreak-migrants-blamed-italy-matteo-salvini-marine-le-pen and https://time.com/5789666/italy-coronavirus-far-right-salvini/.

[16] https://elezionistorico.interno.gov.it.

[17] https://www.siproimi.it/pubblicazioni.

total count of (legal) resident migrants in the municipality (*Total resident migrants*), in 2004:

$$\text{WA Migrants Share}_{\,i,2004} = \frac{\text{Count of RE resident migrants}_{\,i,2004}}{\text{Count of total resident migrants}_{\,i,2004}} \tag{1}$$

To identify the risk-Ebola cluster, we classify immigrants based on their country of origin allowing for a broad definition of the risk-Ebola macro-area, which encompasses the entire West Africa region and counts a total of 16 countries, including the three countries most severely hit by the Ebola outbreak: Guinea, Sierra Leone, and Liberia[18]. *WA Migrants Share* is intended to capture how likely it is for citizens of a given municipality to come in contact with present and prospective risk-Ebola immigrants: it takes higher values in those municipalities with a high proportion of migrants from risk-Ebola countries, relative to the total number of migrants.

Such a proxy for exposure to this (alleged) immigration-related health risk is built on the idea that, as the salience of Ebola increased, citizens in municipalities with a higher share of migrants from West Africa might expect to get even more immigrants from West Africa. As migrants tend to settle where they have a sizeable pre-existing network of co-nationals (Altonji and Card, 1991, Barone et al., 2016), voters may increase their expectations about future immigration from that area, by combining information about the geographic spread of Ebola and the locally-dominant clusters of immigrants[19]. Thus, the threat of risk-Ebola immigration is higher (lower) where West African immigrants are more (less) expected to settle, that is, in municipalities with a high (low) local share of regular West African migrants. An additional interpretation of this index hinges on the relative importance that regular immigrants originally from West Africa might have to local voters, regardless of their beliefs on future immigration. As soon as Ebola becomes a salient issue, citizens could perceive a heightened threat due to increased chances of interaction with West African immigrants who have already established residence within their municipality. In this context, voters might struggle to differentiate between migrants who arrived before or during the Ebola pandemic, possibly forming beliefs that *any* West African immigrant could serve as a carrier of Ebola infection. In either scenario—whether the perceived threat originates from the augmented salience of the local pre-Ebola proportion of West African migrants or

[18]The other countries included in the West-Africa macro-area, based on the geographical classification by the UN, which we rely on, are: Benin, Burkina Faso, Cape Verde, Gambia, Ghana, Guinea Bissau, Ivory Coast, Mali, Mauritania, Niger, Nigeria, Senegal, Togo.

[19]Previous studies have shown that citizens are able to differentiate among distinct ethnic groups residing in their municipality (Newman and Velez, 2014, Bellucci et al., 2019). We also carry out falsification tests using different groups of immigrants in Section 5.

anticipations of future arrivals of migrants from Ebola-prone countries—the Ebola outbreak is expected to induce larger shifts in health risk perceptions in municipalities hosting a greater share of West African immigrants.

As part of our robustness checks, we use an alternative version of the exposure to risk-Ebola migration index, where the denominator is the total count of resident immigrants from risk-Ebola countries in Italy[20]. While yielding similar outcomes (see Section 5.2), our preferred index version remains the one presented in Equation 1, primarily because the ratio conforms more closely to a normal distribution in this formulation. This characteristic makes it better suited for the linear models used in this paper.

Figure 5 graphically shows the geographic variation in exposure to the risk-Ebola migration index in Northern Italy. As done in other studies (e.g., Bracco et al. (2018)), we focus the analysis on the Northern regions (Piemonte, Lombardia, Liguria, Veneto, Friuli-Venezia Giulia, Emilia-Romagna).

[Figure 5 around here]

3.3 Empirical strategy

We focus on Northern Italian municipalities that voted in 2014, after the Ebola outbreak, and compare electoral outcomes registered in that year with the results of the previous round of local elections. In Italy, in the absence of special events, local elections should regularly be held every five years (see Section 2.2. for more details). Our empirical analysis hinges on data from local elections held in 2014 and 2009, which is our reference year. We further expand the time span to include elections held earlier, in 2004, to test for differences in pre-Ebola trends between treatment and control municipalities[21].

The following equation summarizes the model we estimate:

$$Y_{i,r,t} = \sum_t \beta_t \text{WA Migrants Share}_{i,r}^{2004} \times I_t + \sum_t \gamma_t I_t + \delta X'_{i,r,t} + \lambda_i + \theta_r + \theta_r \times I_t + \epsilon_{i,r,t} \tag{2}$$

[20] This alternative definition of the index is similar to the approach taken in Barone et al. (2016).

[21] To avoid confounders, we restrict all our analyses to the set of municipalities that held local elections regularly in 2014, as well as in the two previous round (in 2004 and 2009) and in the subsequent round (in 2019). We exclude from the sample the municipalities that did not regularly vote in the three rounds of elections we consider in our study due to early termination of the office.

$Y_{i,r,t}$ in Equation 2 represents the electoral outcome for municipality i, located in region r, in the election year t (t=2004, 2009 and 2014). In order to identify the model we omit 2009 and estimate β for 2004 and 2014. Our main outcome of interest is the vote share obtained by the extreme right-wing party Lega; as additional outcomes, we also look at the vote shares of center-right, center-left, and extreme-left parties, categorized as reported in Table 1[22].

WA Migrants Share$^{2004}_{i,r}$ identifies our treatment variable, capturing potential exposure to risk-Ebola immigration in municipality i, located in region r, based on the historical presence of migrants originally from risk-Ebola countries (see Equation 1) — as measured in the year 2004. We estimate treatment effects both through a continuous treatment approach, introducing this variable in levels, and relying on a more compact discrete measure of exposure to risk-Ebola immigration, introducing a dummy variable equal to one if exposure in municipality i rests above the median. The β_t are our coefficients of main interest, estimating the electoral effects of the local share of risk-Ebola immigrants across the different electoral waves.

Our primary focus is on the differential treatment effects between the electoral wave that occurred in the Ebola year (2014) and the previous one (2009). The trajectory of political outcomes within our control group (e.g., municipalities with a share of risk-Ebola immigrants below or equal to the median) serves as a credible approximation of the counterfactual political trajectory within our treatment group (e.g., municipalities with a share of risk-Ebola immigrants above the median), had Ebola never occurred. The lack of significant treatment effects in 2004 relative to 2009 would provide empirical support to the 'parallel trends' hypothesis (Meyer, 1995).

$X'_{i,r,t}$ identifies a set of control variables that vary at municipal i level and over time t. We include, among control variables: the number of individuals entitled to vote at the municipality level, which takes into account the changes in the size of the electorate due, for instance, to the historical variation in the dimension of the cohorts entering the group of voters for the first time[23] (*Electorate*); the population share of all regular immigrants, excluding those with Italian citizenship (*Share of immigrants*)[24], to control for the effect of the overall presence of

[22]We did not include *Movimento 5 Stelle* in the list of parties since it was created in 2012 and it took part in Parliamentary elections for the first time only in 2013. Similarly, also *Fratelli d'Italia*, was excluded from the list of parties because it was created in 2012. In some cases, mayor candidates and council lists do not have an official political affiliation, identifiable by voters through the political party's symbol and name; in such cases, candidates belong to the so-called 'civic lists'. For this reason, we exclude cases where retrieving a clear-cut party affiliation from official electoral data is impossible.

[23]This variable is also a proxy for municipality size.

[24]This variable allows us to control for the pre-Ebola presence of migrants in the municipality.

regular immigrants on voting behavior; a dummy variable that takes value one if the municipality hosts a refugee center (*Presence of RRC*), to control for the effect of (present and past) contact with refugees and asylum seekers on voting behavior; the share of citizens with annual personal taxable income greater than 120,000 euros (*Taxable income*), to account for the fact that immigration policies and political outcomes may be sensitive to the presence and the share of top-income voters; and, an index capturing the characteristics of the age structure and demographic dynamics of the municipality, defined as the ratio between the number of elderly, over 65, and young, aged betwwen 0 and 14, individuals (*Ageing*).

I_t is a time dummy referred to election years, while λ_i, θ_r and $\theta_r * I_t$ capture, respectively, municipality, region, and region-by-year fixed effects.

In all specifications, standard errors are clustered at the municipality level to account for error correlation that could derive, for instance, from geographical spillovers (e.g., voters' reactions to heightened health risks from immigration spilling over neighboring cities). The classification of the political parties and the summary statistics for the main variables are reported, respectively, in Table 1 and Table 2.

[Table 1 and Table 2 around here]

4 Main results

Our main results are graphically shown in Figure 6 and Figure 7, while Table 3 and Table 4 present the complete set of estimation results. Overall, our estimates document a drop in the political support for Lega, with voters shifting political support away from the latter (and other extreme parties) towards more moderate left-wing parties.

When we measure exposure to risk-Ebola immigration through the compact binary indicator, we find that municipalities with above-median exposure to risk-Ebola immigration experience a drop in the vote share obtained by Lega, of approximately 1.2 percentage points, compared to less exposed municipalities (Figure 6, dotted line, and Table 3, column 1). Similarly, using the continuous measure of exposure to risk-Ebola immigration, we find that a one-standard-deviation increase in exposure leads to a decrease in the vote share obtained by Lega of approximately 0.5 percentage points (Figure 6, solid line, and Table 3, column 2).

[Figure 6 and Table 3 around here]

Where do the votes lost by the Lega party due to the heightened health risks linked to risk-Ebola immigration shift to? Our results suggest that some of them shift towards political forces characterized as 'center-left' parties, with no sizeable gains for those categorized as 'extreme-left' or 'center-right' parties (see party classification in Table 1). In the estimates where the exposure index is a dummy variable, the point estimates document that the vote share of the center-left coalition is significantly and positively affected by risk-Ebola exposure. More precisely, the treatment effect on the share of votes for the center-left partnership is around +0.6 percentage points (Figure 7, panel b, dotted line, and Table 4, column 2), while on the share of votes for the extreme-left parties it is around -0.4 percentage points (Figure 7, panel c, dotted line, and Table 4, column 3). Results are similar when using treatment as a continuous variable. More precisely, in that case, a one-standard-deviation increase in risk-Ebola immigration exposure leads to an increase (decrease) in vote share of the center-left (extreme-left) coalition by approximately +0.4 (-0.1) percentage points (Figure 7, panels b and c, solid line, and Table 4, columns 5 and 6).

[Figure 7 and Table 4 around here]

To verify if such treatment effects are persistent over time or, instead, are only short-lived, we expand the analysis to include data from the first post-Ebola election round in 2019. While our main treatment effects are also confirmed under this alternative empirical strategy, the new estimates identifying long-term treatment effects, graphically shown in Figure 8, are not significant. This allows us to rule out that the political effects of risk-Ebola immigration exposure last in the long run (see also Table A1 in Appendix).

[Figure 8 around here]

Voters' participation in local elections might be one of the factors that can explain the electoral consequences of the Ebola virus. This factor not only sheds light on the immediate challenges posed by holding elections during a health crisis but also offers insights into the broader interplay among public health, governance, and civic engagement. If the risk of Ebola elevates the public's sense of unity and responsibility for collective health, holding mayoral elections during periods of heightened health risk perception can influence whether citizens choose to participate in the electoral process. Voter turnout can reflect varying motivations to

engage in elections, contingent on the public's perception of the government's response to the crisis. A high voter turnout may convey a sense of urgency and civic responsibility, while a low turnout may indicate dissatisfaction with the government's crisis management. Using voter turnout, defined as the ratio of total ballots cast to eligible voters, as a dependent variable, we test whether exposure to Ebola plays a role in electoral participation. Our findings reveal that heightened concern about Ebola does not affect turnout[25]. Furthermore, we test whether political participation acts as a mediator in the relationship between Ebola exposure and the vote share accrued by the Lega. We replicate the main estimation as in Equation 2, including turnout as an additional control. The main results do not change (see also Table A2 in Appendix), leading us to exclude that turnout plays a mediating role.

5 Robustness checks

5.1 Falsification tests

We perform two 'placebo' DiD regressions based on the definition of alternative 'fake' treatment groups, for which we should not expect any treatment effect. In the first case, we exploit the limited geographical scope of the area where the vast majority of Ebola cases were concentrated and the fairly heterogeneous composition of the resident migrants' population in Italy by country of origin. In the second case, we exploit the limited time frame bounding the outburst and the end of the Ebola crisis.

First, we construct the same exposure index as in Equation 1 using the share of Asian and South American migrants over the total count of (legal) resident migrants in the municipality. Since these groups of migrants are unrelated to the Ebola epidemic, the estimated effect of such a 'placebo' exposure should be zero on average. Regression results for the two separate groups are reported in Table 5, in which the (placebo) groups are now the share of Asian immigrants (column 1) and the share of South American immigrants (column 2).

Second, since the WHO declared the health emergency for Ebola only in 2014, we re-run our estimation on a sample of the municipalities that regularly held local elections in 2013, before the outburst of the infectious disease. More specifically, holding fixed the empirical strategy

[25]It is important to consider that there were no mobility restrictions and quarantine measures affecting voters' ability to reach polling stations.

adopted for the estimation of our main results, we repeat the analysis on municipalities that regularly held elections in 2013 and in the two previous electoral rounds, in 2008 and 2003, where 2008 serves as the reference year. Again, the treatment effect in these estimates is expected to be not statistically different from zero as there was no Ebola epidemic over that period. Results are reported in Table 5, column 3, and show that this is indeed the case.

Overall, falsification tests in Table 5 provide additional evidence supporting the validity of our identification strategy.

[Table 5 around here]

5.2 Alternative treatments

The approach we used so far to measure exposure to risk-Ebola immigration accounts for the size of immigration from West African countries relative to immigration from all other countries, thereby allowing us to assess the relative importance of West Africans as a group *within* municipalities. Therefore, immigration threat derives, in this approach, from citizens' exposure to West African immigrants relative to other immigrant groups officially residing in the municipality. As a robustness check, we replace our main exposure indicator as in Equation 1 with the ratio between the count of (legal) resident migrants in municipality i from West African countries (*RE resident migrants*) and the total count of (legal) resident migrants from West Africa in Italy (*Total RE resident migrants*) in 2004. This alternative index allows us to assess the relative importance (in terms of size) of West African migrants *across* municipalities, capturing immigration threat spurring from differential 'allocation' between municipalities of West African immigrants residing in the country, irrespective of other local immigrant groups. Results are also confirmed using this alternative version of the treatment variable (see Table A3 in Appendix).

As an alternative identification strategy, we rely on a measure of exposure to risk-Ebola immigration based on the distance of each municipality to the closest refugee reception center (RRC)[26]. More precisely, we estimate the following model, using the same approach as in Equa-

[26] As far as the Italian migrants' reception system is concerned, in the period considered in this paper, refugees receive first assistance, medical care, health screening, and identification immediately after arrival in a collection center close to the main landing ports. The Italian Prefectures coordinate these centers, and refugees can start the procedure to request international protection. Within 48 hours, refugees are transferred to temporary first reception centers. In the meantime, they receive a response for international protection requests, with an average permanence period of 10 days. In case of acceptance, migrants become asylum seekers. They can be directed to the second level of reception, where they wait for the

tion 2:

$$Y_{i,r,t} = \sum_t \beta_t \text{RRC proximity}_{i,j,r} \times I_t + \sum_t \gamma_t I_t + \delta X'_{i,r,t} + \lambda_i + \theta_r + \theta_r \times I_t + \epsilon_{i,r,t} \tag{3}$$

$RRCproximity_{ij,r}$ is defined as the inverse of the distance, in kilometers, between municipality i and the closest municipality hosting a refugee center j, located in region r[27]. This index aims to capture how likely it is for citizens of a given municipality to come in contact with immigrants currently hosted within the area they also live in, and takes higher values in municipalities that are closer to a RRC. While we cannot explicitly isolate risk-Ebola immigrants from other immigrants hosted in RRCs[28] to quantify their concentration within each center, we learn from aggregate statistics that the risk-Ebola cluster is generally nonetheless over-represented: the percentage of migrants hosted in RRCs coming from risk-Ebola countries is indeed higher than the percentage of migrants from risk-Ebola countries over the total of all migrants who land in Italian ports or who are legally entitled to reside in Italy in each year[29]. This is enough to make their presence over-salient even without any specific information provision to citizens about the nationality distribution in each RRC. Moreover, the location of RRCs might not be fully exogenous to the local political cycle[30]. To mitigate this potential concern, we keep

final response to their international protection request, waiting for repatriation. The Ministry of the Interior coordinates the second-level reception system in collaboration with the National Association of Italian Municipalities through a protection system for asylum seekers and refugees (named 'SPRAR'). Once in the reception system, refugees are completely limited in their freedom of movement to circulate over the territory and are not allowed to leave the reception center temporarily, at least not legally, and not immediately after the landing (e.g., they cannot visit relatives without prior authorization).

[27]We use the geodesic distance between the centroids of two cities.

[28]Isolating the information on the nationalities of all immigrants hosted within each refugees' reception center is impossible due to data availability constraints.

[29]As a reference, in 2014, the total number of migrants who landed in Italy was equal to 170.000, and among the top 10 countries of origin, only a few belonged to the Risk-Ebola cluster: Mali (9.908), Nigeria (9.000), Gambia (8.691), and Senegal (4.933), representing roughly 19% of the total. In contrast, in the same year, the overall number of migrants who issued an asylum request, who are those entitled to be hosted in RRCs, was equal to 63.000, and among the top-10 countries of origin, those belonging to the Risk-Ebola cluster represented approximately 59% of the total (Mali: 9.800; Nigeria: 9.700; Gambia: 8.500; Senegal: 4.671; Ghanese: 3.104; Ivory Coast: 1.491). Source: https://www.interno.gov.it/sites/default/files/t31ede-rapp_prot_int_2015_-_rapporto.pdf.

[30]Each Italian municipality can set up reception centers (usually pre-existing residences, apartments, or hotels), conditional on participating in national public tenders for refugees' reception. Winning participants then give their availability to host asylum seekers and refugees (Gamalerio and Negri, 2023). Refugees are assigned to these centers depending on the availability of the municipality to provide beds. Therefore, the decision to open a RCC (and on its size) might depend on the political leaning of mu-

only municipalities that did not host a refugee center in 2004 and exploit only the geographical spillovers to identify the treatment effect of interest[31]. Results using proximity to RRC as a treatment are summarized in Table 6 and confirm our main findings.

[Table 6 around here]

5.3 WA immigrants and the local political cycle

We run an event study to test for significant pre- and post-electoral trends in the share of WA immigrants. More specifically, for the sample of municipalities in our main specification, we estimate the following model:

$$\text{WA Migrants Share}_{i,t,r} = \sum_{d} \beta_d I_{t+d} + \sum_{t} \gamma_t I_t + \delta X'_{i,r,t} + \lambda_i + \theta_r + \theta_r \times I_t + \epsilon_{i,t,r} \tag{4}$$

where *WA Migrants Share* is the share of WA immigrants living in municipality i, region r and year t (t spans from 2004 to 2016). $I_{i,t+d}$ is a dummy variable equal to 1 if an election is scheduled in municipality i at time $t+d$, with $d = \{-1, -2, +1, +2\}$, e.g., one and two years before and after the election year (omitted)[32]. The coefficients of interest from Equation 4 are the β_d, which capture the time variation in the share of West African immigrants between year t and the year of the election. More precisely, when $d = -2$ and $d = -1$, β_d captures pre-electoral trends of West African immigrants, respectively, one and two years before the election year, whereas when $d = +1$ and $d = +2$, β_d captures post-electoral trends, respectively, one and two years after the election year. Results in Table A4 of the Appendix show no pre- or post-electoral trends in the share of West African immigrants residing in the municipalities in response to possible local political shocks. This evidence allows us to exclude that risk-Ebola immigrants endogenously sorted in a given municipality based on the (short-term) local political cycle.

nicipalities. Where there is a higher demand for immigration restriction, i.e., for instance, in right-wing municipalities, there might be no (or a smaller) RRCs.

[31] See Bratti et al. (2020) for a similar strategy.

[32] We exclude *Electorate* from the list of controls as we also use years in which the municipalities do not vote.

6 Conclusions

We examine the political effects of the 2014 Ebola epidemic in Italy, a country unscathed by the disease itself. Exploiting the epidemic as an external shock, we focus on the impact of *perceived* health threats on the political support of the main far-right and anti-immigrant party, i.e., Lega. The leaders of this party capitalized on the global health crisis to advance more stringent anti-immigration policies, explicitly linking ongoing immigration with the potential diffusion of the disease within the country.

Our Differences-in-Differences strategy rests on variation across municipalities in the local share of West African immigrants, which we rely upon as a measure of citizens' perceived health threats associated with immigration. As outlined in the paper, health risk perceptions might have been heightened during the Ebola outbreak, especially in municipalities where: i) prospective immigrants from countries at risk of Ebola were (perceived as) more likely to relocate after arriving, i.e., in municipalities with a high pre-Ebola share of regular migrants from West Africa; and/or ii) citizens, exposed to increased salience of the Ebola virus and hence of the ethnic group most affected by it, began to view immigrants from West Africa residing in their city as potential sources of contagion.

Our results show negative treatment effects, documenting a decrease in the vote share of Lega in 2014, coinciding with the Ebola crisis in West Africa. According to our estimates, disappointed voters shifted away from Lega and extreme-right parties toward more moderate parties, increasing the vote share of center-left parties. These effects do not seem to be, however, long-lasting: our findings suggest that the political impact of Ebola on local political outcomes tends to dissipate in the subsequent electoral cycle.

While aligning with the "rally 'round the flag" hypothesis (Bol et al., 2021), these findings do not necessarily go against those provided by Campante et al. (2023), who found, instead, that the threat of Ebola decreased support for the Democrats in the United States. It's plausible that these alternative results are driven by differences in the institutional and political context of the two countries. In a highly polarized country like the United States, where the political landscape is dominated by two major parties, supporters of one of these parties are less likely to change their political affiliation due to the high ideological stakes involved. However, in a multi-party system like Italy's, disappointed voters can shift their support to various political alternatives

without making a significant ideological shift. This flexibility in a multi-party system can lead to different political responses to unexpected shocks like the Ebola crisis. Future research should delve into the political effects of unexpected shocks from a comparative standpoint, e.g., focusing on the interplay between exposure to the crisis, its political effects, and the mediating influence of the institutional context. Comparative studies can help us better understand how political responses to crises are shaped by the specific characteristics of a country's political system and institutions.

In conclusion, our findings suggest that allegedly attributing health risks to immigration may result in a significant erosion of political support for those politicians who exploit such narratives for personal gain during crises.

In light of recent studies examining the political consequences of scapegoating minorities in the context of global health crises such as COVID-19 (Porumbescu et al., 2023, Boldrini et al., 2023), our research provides novel insights on the effectiveness of these political strategies in the face of purely *external* health threats. Strategically exploiting a (health) crisis to gain support for anti-immigrant policies could prove politically counterproductive. Voters may come to realize that the link between the Ebola virus and immigration is being strategically wielded as a political tool to rally support for anti-immigration policies, regardless of the actual stance of the party in question (Fernandez-Vazquez, 2019). Furthermore, such anti-immigration narratives may be deemed too extreme, unethical, or simply false (Boldrini et al., 2023), particularly in municipalities with a historical presence of the targeted immigrant group. In these areas, voters have had the opportunity to witness firsthand that such a group is not connected to the external virus.

Hence, in a broader context, the political backlash observed in this study serves as a compelling example of how populism, when taken to extremes, can eventually undermine its own appeal and support, emphasizing the potential risks of exploiting crises for political gain.

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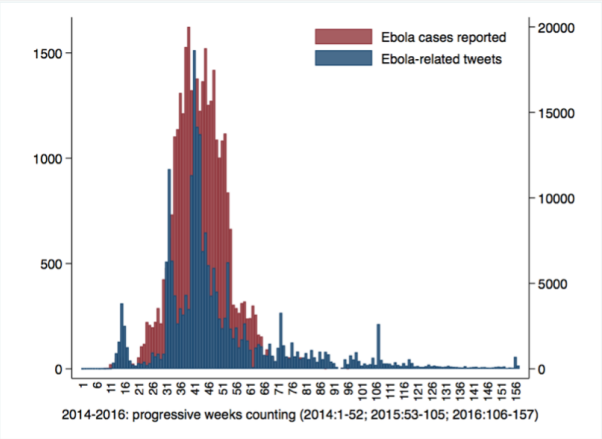
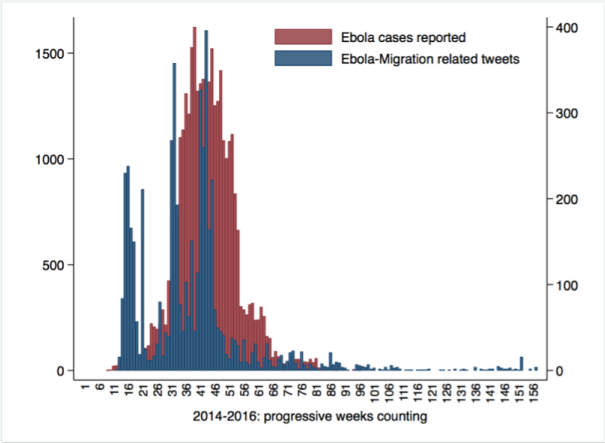
Figures

Figure 1: Dynamics of Ebola-reported cases and their association with occurrences of Ebola and Ebola-Migration related tweets

(a) Ebola cases and Ebola tweets

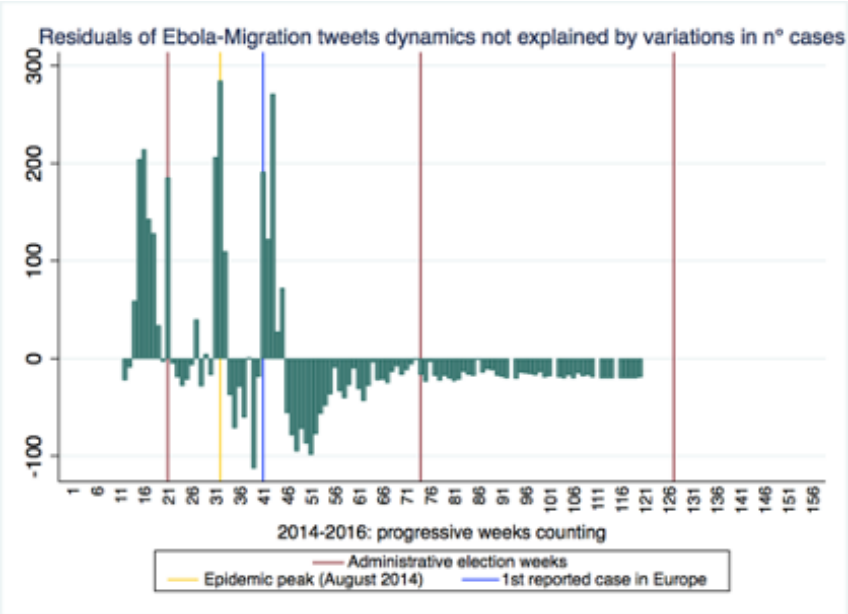


(b) Ebola cases and Ebola-Migration tweets



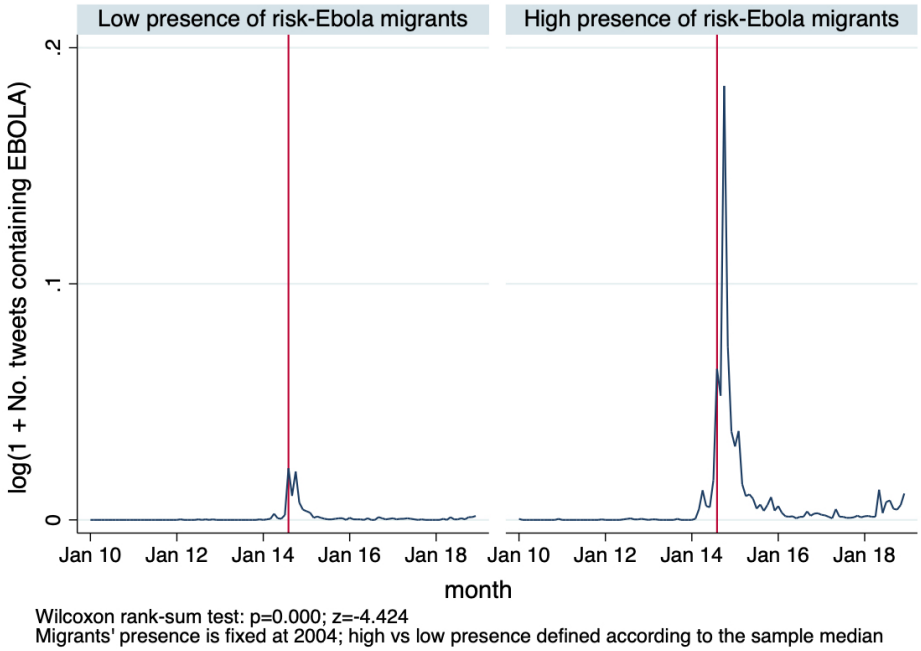
Note: The Figure reports the weekly count of Ebola cases reported by the WHO (red bars) and the Ebola-related tweets in Italian (blu bars - panel a) or Ebola-and-Migration related tweets in Italian (blu bars - panel b), over the years 2014-2016. The x-axis shows labels for the progressive weeks counting, where weeks 1-52 = 2014, 53-105 = 2015 and 106-157 = 2016. Local elections in the year 2014 (when the Ebola epidemic was declared a global public health concern) took place around week 19.

Figure 2: Variation of Ebola- and immigration-related words in Twitter (unexplained by actual cases)



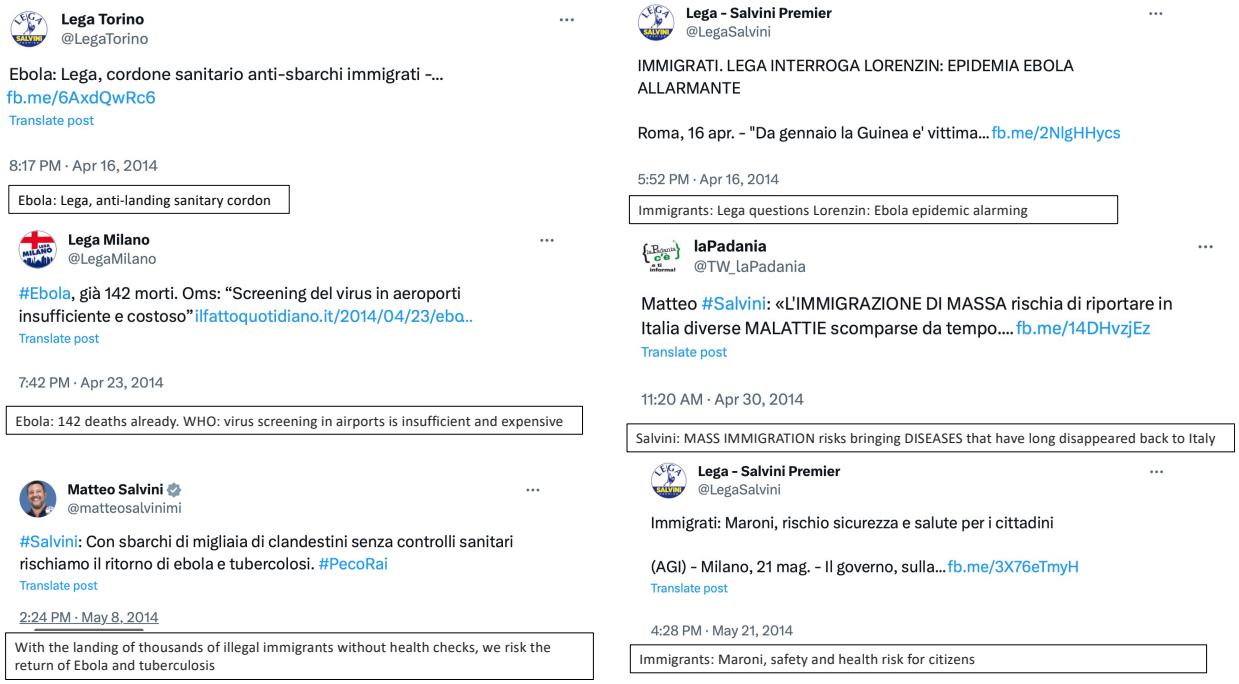
Note: The Figure plots the distribution over time of the residuals obtained after regressing the weekly number of Ebola and-Migration-related tweets over the number of weekly Ebola reported cases (OLS estimates); the x-axis shows labels for the progressive weeks counting, where weeks 1-52 = 2014, 53-105 = 2015 and 106-157 = 2016. The red lines indicate the weeks elections were held in 2014, 2015 and 2016; the yellow line indicates the peak of Ebola in August 2014; the blue line indicates the first case of Ebola contagion reported in Europe.

Figure 3: Twitter mentions of Ebola in municipalities with high vs. low West-African residents



Note: The figure shows the trend of Ebola-related mentions in tweets gathered from geolocalized users in Italian municipalities between 2010 and 2018. It distinguishes between municipalities with high and low concentrations, defined at the median, of West-African regular immigrants relative to the total number of West-African immigrants in Italy in 2004.

Figure 4: The purported link between Ebola and immigration in the political discourse



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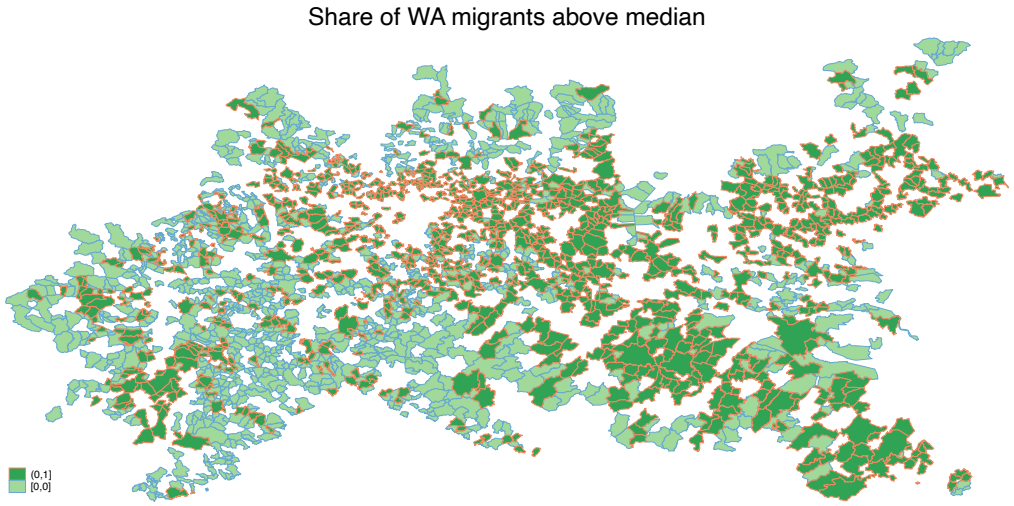
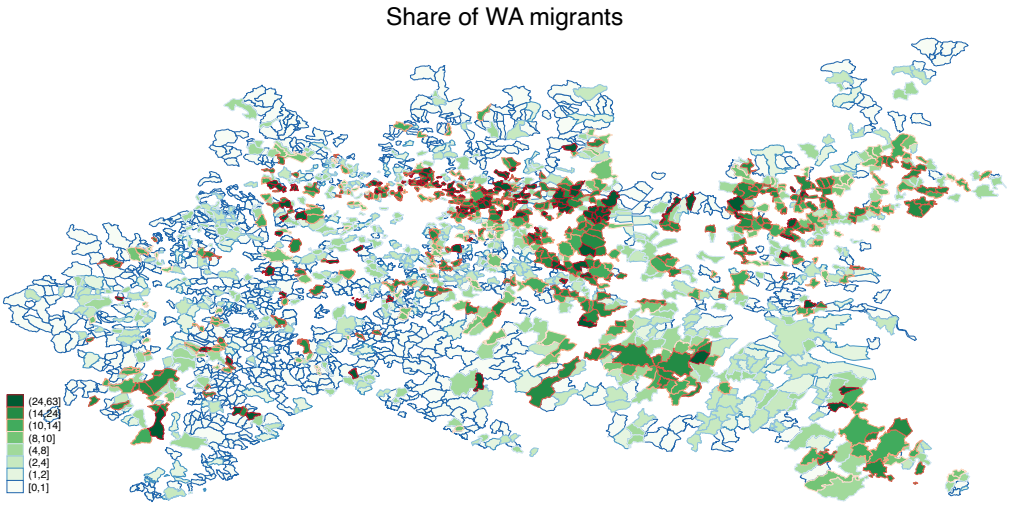
Note: The figure displays the original text from a selection of Italian tweets, where a direct correlation between the Ebola virus and immigration is made by the Twitter account associated with the Lega party, and also in the account of Lega's leader, Matteo Salvini (English translation provided in the box).

Figure 5: Geographic distribution of the risk-Ebola immigration exposure index

(a)

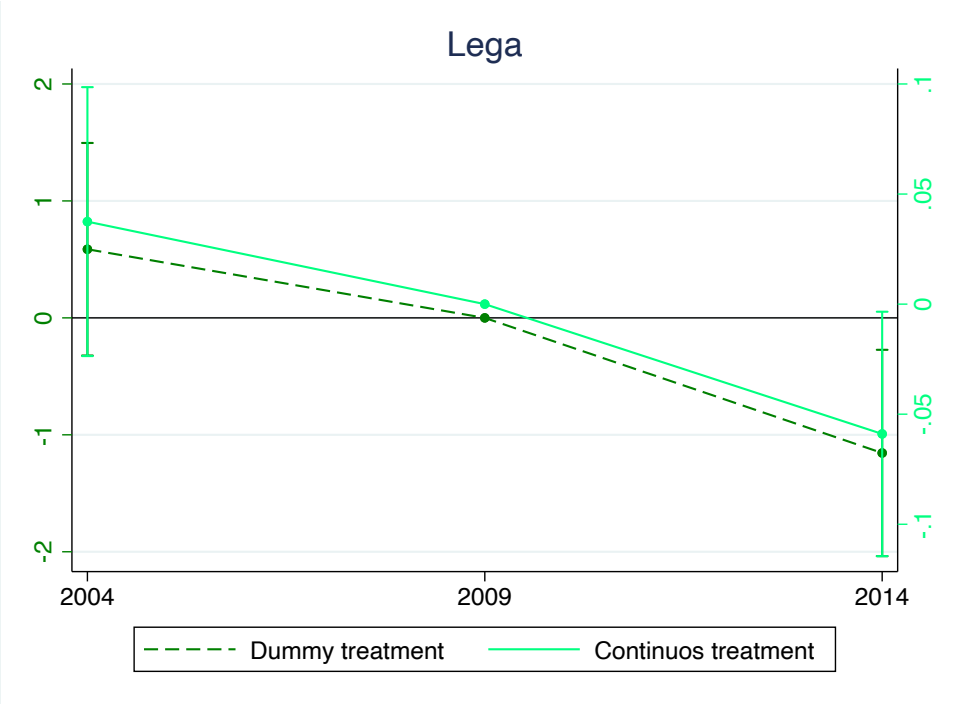


(b)



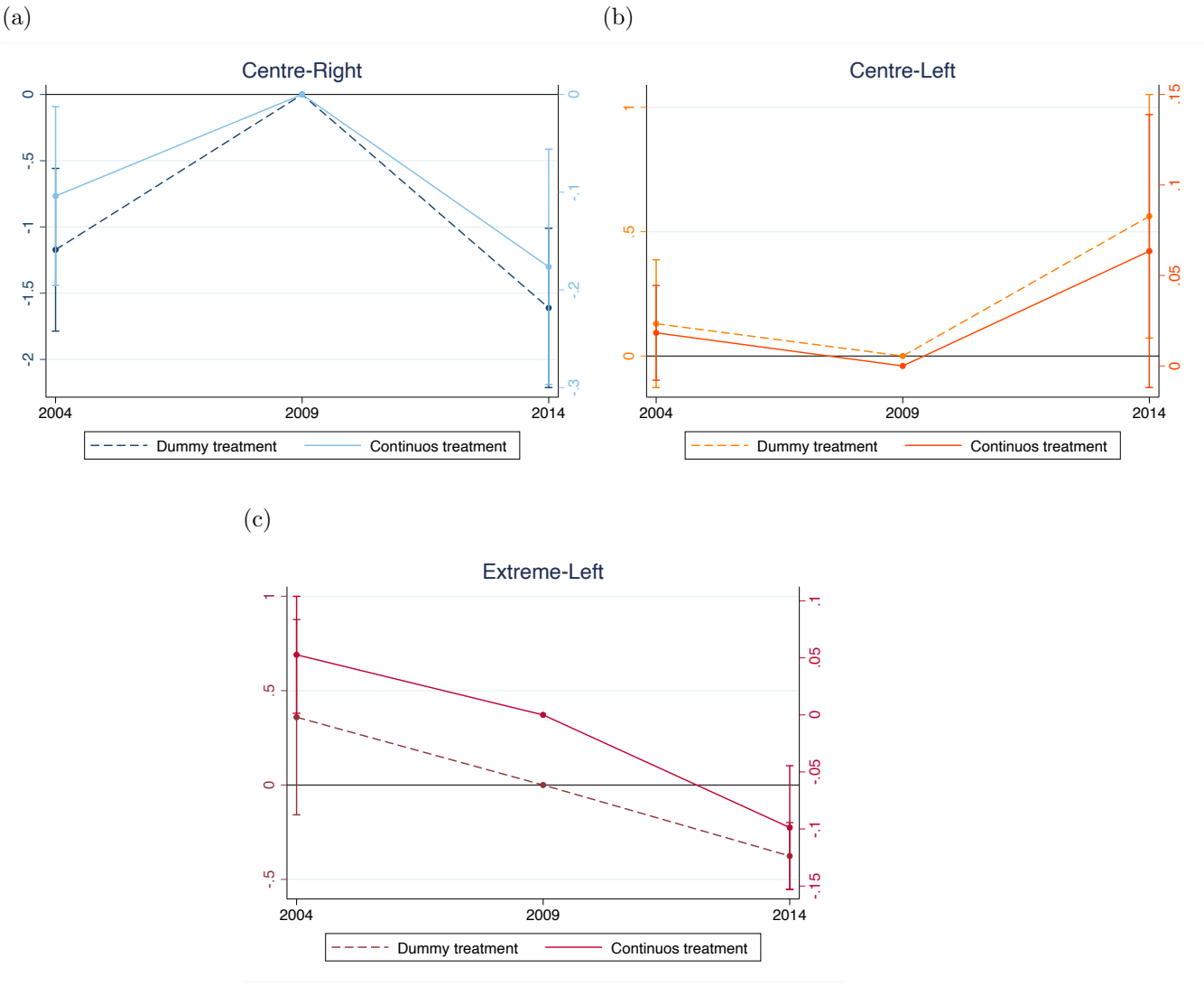
Note: Geographic variation in exposure to the risk-Ebola migration index in northern Italy (Piemonte, Lombardia, Liguria, Veneto, Friuli-Venezia Giulia, Emilia-Romagna). Panel (a) shows the municipalities with a share of WA migrants above or equal to the median values of *WA Migrants Share*. Panel (b) shows the local share of WA migrants as a continuous variable. Some municipalities are not included in the map since they did not vote during the period under analysis.

Figure 6: The effects of Ebola on political support for Lega



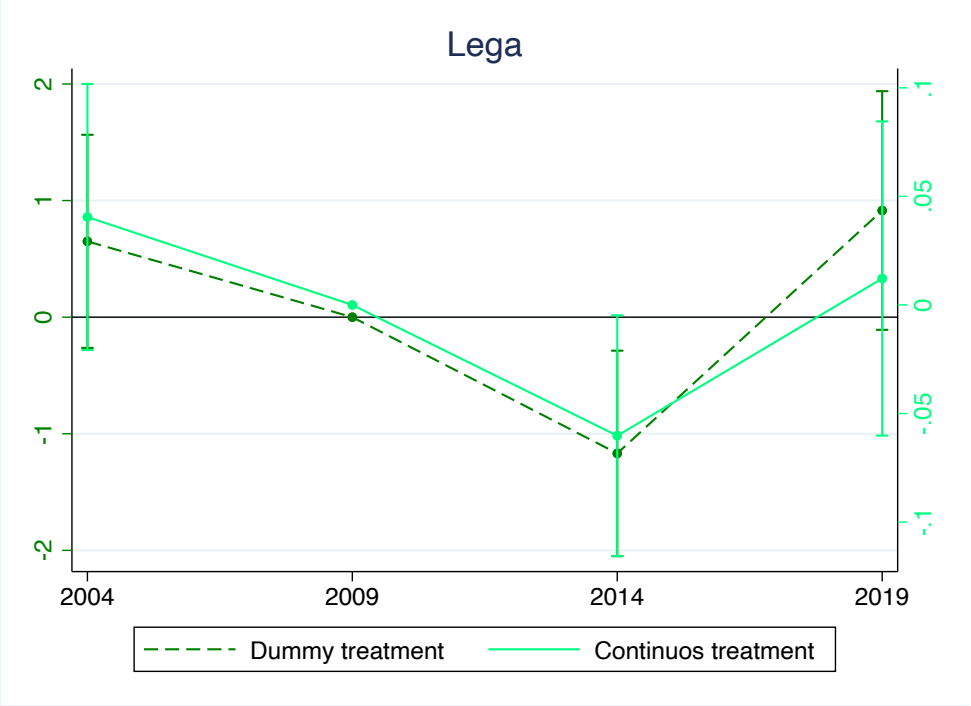
Note: Dotted line shows the effect of Ebola on political support for the Lega party using as a treatment variable a dummy equal to one for values above the median of the *Share of WA Migrants*; the y-axis of reference is on the left-hand side. The solid line shows the effect of Ebola on political support for the Lega party using *Share of WA Migrants* as a continuous treatment variable; the y-axis of reference is on the right-hand side.

Figure 7: The effects of Ebola on political support for non-Lega coalitions



Note: Dotted line shows the effect of Ebola on political support for the Centre-right (panel a), Centre-left (panel b), and Extreme-left (panel c) parties using as treatment variable a dummy equal to one for values above the median of the *Share of WA Migrants*; the y-axis of reference is on the left-hand side. The solid line shows the effect of Ebola on political support for the Centre-right (panel a), Centre-left (panel b), and Extreme-left (panel c) parties using the continuous treatment variable; the y-axis of reference is on the right-hand side.

Figure 8: The effects of Ebola on political support for Lega



Note: The dotted line shows the effect of Ebola on political support for the Lega party using the treatment variable as a dummy equal to one for values above the median of the *Share of WA Migrants*; the y-axis of reference is on the left-hand side. The solid line shows the effect of Ebola on political support for the Lega party using the treatment variable as a continuous variable; the y-axis of reference is on the right-hand side.

Tables

Table 1: Classification of political parties

(1) Centre-Right	(2) Centre-Left	(3) Extreme-Left
Forza Italia	Partito Democratico	Comunisti Italiani
Il Popolo delle Libertá	DL.La Margherita	Partito Socialista
Casa delle Libertá	Democratici di Sinistra	Verdi
Nuovo Centro Destra	L'Ulivo	
Unione di Centro		

Table 2: Descriptive statistics

Variable	Mean	Std. Dev.
Share of votes Lega	3.609	11.342
Share of votes centre-right	1.242	5.686
Share of votes centre-left	1.408	7.25
Share of votes extreme left	0.618	3.709
WA migrants share	6.029	8.834
Asian migrants share	7.895	13.32
South American migrants share	6.157	10.019
Electorate (log)	7.444	1.17
Ageing	1.965	1.567
Share of immigrants	6.478	4.138
Taxable income	23.266	2.732
Presence of RRC	0.006	0.076
Observations	6950	

Note: Authors' calculation

Table 3: The effects of Ebola on political support for Lega

	(1)	(2)
	Share of votes Lega	
WA migrants share (above median)*2004	0.587	
	(0.464)	
WA migrants share (above median)*2009	-	
	-	
WA migrants share (above median)*2014	-1.155**	
	(0.450)	
WA migrants share*2004		0.037
		(0.031)
WA migrants share*2009		-
		-
WA migrants share*2014		-0.059**
		(0.028)
2004	-0.662	-0.501
	(0.551)	(0.490)
2014	-0.447	-0.859**
	(0.459)	(0.380)
Electorate (log)	-3.211*	-3.500*
	(1.797)	(1.820)
Ageing	-0.041	-0.045
	(0.027)	(0.028)
Share of immigrants	0.032	0.031
	(0.078)	(0.078)
Taxable income	-0.100	-0.091
	(0.096)	(0.095)
Presence of RRC	1.041	0.925
	(1.373)	(1.390)
Std Dev Vote Share	-	11.342
Std Dev WA migrant share	-	8.834
Effect of Std Dev Δ in 2014 WA migrant share	-	-0.521
Observations	6,950	6,950
R-squared	0.089	0.089
Number of municipalities	2,321	2,321
Region by year fixed effects	YES	YES

Note: Column 1 shows the effect of Ebola on political support for the Lega party using the treatment variable as a dummy equal to one for values above the median of the *WA Migrants share*. Column 2 shows the effect of Ebola on political support for the Lega party using the treatment variable as a continuous variable. Standard errors clustered at the municipal level in parentheses; * p <0.10, ** p <0.05, *** p <0.01.

Table 4: The effects of Ebola on political support for Centre-right, Centre-left and Extreme-left parties

	(1)	(2)	(3)	(4)	(5)	(6)
	Share of votes					
	Centre-Right	Centre-Left	Extreme-Left	Centre-Right	Centre-Left	Extreme-Left
WA migrants share (above median)*2004	-1.172***	0.130	0.359			
	(0.313)	(0.131)	(0.264)			
WA migrants share (above median)*2009	-	-	-			
	-	-	-			
WA migrants share (above median)*2014	-1.611***	0.562**	-0.376***			
	(0.307)	(0.250)	(0.090)			
WA migrants share*2004				-0.038**	0.009	0.016
				(0.019)	(0.007)	(0.017)
WA migrants share*2009				-	-	-
				-	-	-
WA migrants share*2014				-0.045**	0.037**	-0.008*
				(0.019)	(0.014)	(0.005)
2004	-0.827	-0.015	1.683***	-1.365**	0.018	1.808***
	(0.646)	(0.353)	(0.493)	(0.642)	(0.370)	(0.459)
2014	-1.557***	4.210***	-1.216***	-2.352***	4.366***	-1.408***
	(0.520)	(1.002)	(0.256)	(0.509)	(0.976)	(0.256)
Electorate (log)	2.175***	2.312***	0.577	2.043***	2.353***	0.330
	(0.786)	(0.821)	(0.840)	(0.762)	(0.803)	(0.846)
Ageing	-0.010	-0.006	-0.004	-0.007	-0.006	-0.009
	(0.018)	(0.026)	(0.021)	(0.020)	(0.026)	(0.022)
Share of immigrants	0.013	0.044*	-0.021	0.016	0.043	-0.025
	(0.031)	(0.027)	(0.038)	(0.031)	(0.026)	(0.039)
Taxable income	-0.046	-0.072*	0.023	-0.043	-0.076*	0.024
	(0.102)	(0.041)	(0.054)	(0.102)	(0.041)	(0.054)
Presence of RRC	-1.368	0.904	-3.905***	-1.398	0.943	-3.946***
	(1.226)	(0.797)	(1.351)	(1.269)	(0.809)	(1.369)
Std Dev Vote Share	-	-	-	5.686	7.250	3.709
Std Dev WA migrant share	-	-	-	8.834	8.834	8.834
Effect of Std Dev Δ in 2014 WA migrant share	-	-	-	-0.397	0.326	-0.070
Observations	6,950	6,950	6,950	6,950	6,950	6,950
R-squared	0.067	0.059	0.050	0.062	0.059	0.048
Number of municipalities	2,321	2,321	2,321	2,321	2,321	2,321
Region by year fixed effects	YES	YES	YES	YES	YES	YES

Note: Columns 1, 2 and 3 show the effect of Ebola on political support respectively for the centre-right, centre-left and extreme-left parties using the treatment variable as a dummy equal to one for values above the median of the *WA Migrants share*. Columns 4, 5 and 6 show the effect of Ebola on political support respectively for the centre-right, centre-left and extreme-left parties using the treatment variable as a continuous variable. Standard errors clustered at the municipal level in parentheses; * p <0.10, ** p <0.05, *** p <0.01.

Table 5: The effects of Ebola on political support for Lega (placebo tests)

	(1)	(2)	(3)
	Share of votes Lega		
Share of Asian migrants*2004	-0.020		
	(0.016)		
Share of Asian migrants*2009	-		
	-		
Share of Asian migrants*2014	-0.006		
	(0.017)		
Share of South American migrants*2004		0.014	
		(0.012)	
Share of South American migrants*2009		-	
		-	
Share of South American migrants*2014		0.028*	
		(0.017)	
Share of WA migrants*2003			-0.332
			(0.217)
Share of WA migrants*2008			-
			-
Share of WA migrants*2013			-0.169
			(0.138)
2004	-0.147	-0.418	
	(0.492)	(0.463)	
2014	-1.095***	-1.277***	
	(0.388)	(0.343)	
2003			1.406
			(2.864)
2013			-0.918
			(1.976)
Electorate (log)	-4.142**	-4.214**	14.386
	(1.836)	(1.817)	(14.374)
Ageing	-0.056*	-0.051	1.101
	(0.031)	(0.033)	(0.936)
Share of immigrants	0.005	0.012	0.380
	(0.078)	(0.079)	(0.417)
Taxable income	-0.107	-0.098	-0.012
	(0.096)	(0.095)	(0.460)
Presence of RRC	0.977	0.910	
	(1.376)	(1.385)	
Std Dev Vote Share	11.342	11.342	15.544
Std Dev WA migrant share	13.320	10.019	9.882
Effect of Std Dev Δ in 2014 (2013) WA migrant share	-0.079	0.280	-1.670
Observations	6,950	6,950	296
R-squared	0.086	0.086	0.111
Number of municipalities	2,321	2,321	99
Region by year fixed effects	YES	YES	YES

Note: Columns 1 and 2 show the effect of Ebola on political support for the Lega party using as treatment a continuous variable measuring the share of Asian migrants and South American migrants, respectively. Column 3 shows the effect of Ebola on political support for the Lega party using as treatment a continuous variable measuring the *WA Migrants share* on a different sample of observations, including municipalities where local elections were held prior to the Ebola outbreak in 2014 (differently from the main specifications, we consider election rounds that took place in 2003, 2008 and 2013). Standard errors clustered at the municipal level in parentheses; * p <0.10, ** p <0.05, *** p <0.01.

Table 6: The effects of Ebola on political support for Lega (identification strategy based on proximity to refugee reception centers)

	(1)	(2)
	Share of votes Lega	
RRC proximity above median*2004	-0.533	
	(0.489)	
RRC proximity above median*2009	-	
	-	
RRC proximity above median*2014	-0.930*	
	(0.480)	
RRC proximity*2004		-0.757
		(1.168)
RRC proximity*2009		-
		-
RRC proximity*2014		-4.378***
		(1.300)
2004	0.092	0.428
	(0.513)	(0.970)
2014	-0.496	2.467**
	(0.419)	(1.067)
Electorate (log)	-4.189**	-3.708**
	(1.822)	(1.844)
Ageing	-0.060*	-0.050
	(0.031)	(0.032)
Share of immigrants	0.014	0.020
	(0.080)	(0.080)
Taxable income	-0.115	-0.115
	(0.095)	(0.095)
Std Dev Vote Share	-	11.369
Std Dev RCC proximity	-	0.146
Effect of Std Dev Δ in 2014 RCC proximity	-	-0.639
Observations	6,906	6,906
R-squared	0.087	0.088
Number of municipalities	2,313	2,313
Region by year fixed effects	YES	YES

Note: Column 1 shows the effect of Ebola on political support for the Lega party using the alternative treatment variable as a dummy equal to one for values above the median of the *proximity to RCC*. Column 2 shows the effect of Ebola on political support for the Lega party using the treatment variable as a continuous variable. Standard errors clustered at the municipal level in parentheses; * p <0.10, ** p <0.05, *** p <0.01.

Appendix

Table A1: The effects of Ebola on political support for Lega (long-run effects)

	(1)	(2)
	Share of votes Lega	
WA migrants share (above median)*2004	0.650	
	(0.466)	
WA migrants share (above median)*2009	-	
	-	
WA migrants share (above median)*2014	-1.168***	
	(0.450)	
WA migrants share (above median)*2019	0.915*	
	(0.522)	
WA migrants share*2004		0.041
		(0.031)
WA migrants share*2009		-
		-
WA migrants share*2014		-0.060**
		(0.028)
WA migrants share*2019		0.012
		(0.037)
2004	-0.277	-0.092
	(0.520)	(0.457)
2014	-0.606	-1.013***
	(0.459)	(0.378)
2019	0.619	1.189*
	(0.674)	(0.611)
Electorate (log)	-2.734*	-2.439
	(1.616)	(1.635)
Ageing	-0.031	-0.034
	(0.025)	(0.025)
Share of immigrants	0.146**	0.143**
	(0.063)	(0.063)
Taxable income	-0.074	-0.058
	(0.082)	(0.081)
Presence of RRC	1.648	1.747
	(1.184)	(1.188)
Std Dev Vote Share	-	11.444
Std Dev WA migrant share	-	8.834
Effect of Std Dev Δ in 2014 WA migrant share	-	0.530
Observations	9,264	9,264
R-squared	0.062	0.061
Number of municipalities	2,321	2,321
Region by year fixed effects	YES	YES

Note: Column 1 shows the effect of Ebola on political support for the Lega party using the treatment variable as a dummy equal to one for values above the median of the *WA Migrants share*. Column 2 shows the effect of Ebola on political support for the Lega party using the treatment variable as a continuous variable. Standard errors clustered at the municipal level in parentheses; * p <0.10, ** p <0.05, *** p <0.01.

Table A2: Electoral participation as a mediating factor

	(1)	(2)	(3)	(4)
	Turnout		Share of votes Lega	
Share of WA migrants (above median)#2004	-0.154		0.632	
	(0.173)		(0.464)	
Share of WA migrants (above median)#2009	-		-	
	-		-	
Share of WA migrants (above median)#2014	0.093		-1.183***	
	(0.195)		(0.450)	
Share of WA migrants#2004		-0.016*		0.039
		(0.009)		(0.031)
Share of WA migrants#2009		-		-
		-		-
Share of WA migrants#2014		0.010		-0.060**
		(0.010)		(0.028)
2004	3.150***	3.135***	-0.474	-0.295
	(0.234)	(0.210)	(0.572)	(0.506)
2014	-5.809***	-5.806***	-0.723	-1.134***
	(0.230)	(0.190)	(0.501)	(0.426)
Turnout	-	-	-0.050	-0.048
	-	-	(0.031)	(0.031)
Ageing	0.003	0.002	-0.034	-0.038
	(0.113)	(0.113)	(0.029)	(0.030)
Share of immigrants	-0.063*	-0.066*	0.034	0.034
	(0.037)	(0.037)	(0.078)	(0.077)
Taxable income	-0.003	-0.005	-0.106	-0.098
	(0.074)	(0.074)	(0.096)	(0.095)
Presence of RRC	1.468*	1.488*	1.258	1.148
	(0.851)	(0.847)	(1.359)	(1.378)
Std Dev Turnout/Vote Share	-	7.210	-	11.342
Std Dev WA migrant share	-	8.834	-	8.834
Effect of Std Dev Δ in 2014 WA migrant share	-	0.088	-	-0.530
Observations	6,950	6,950	6,950	6,950
R-squared	0.655	0.656	0.089	0.089
Number of municipalities	2,321	2,321	2,321	2,321
Region by year fixed effects	YES	YES	YES	YES

Note: Columns 1 and 2 show the effect of Ebola on turnout and political support for the Lega party using the treatment variable as a dummy equal to one for values above the median of the *WA Migrants share*. Columns 3 and 4 show the effect of Ebola on turnout and political support for the Lega party using the treatment variable as a continuous variable. Standard errors clustered at the municipal level in parentheses; * p <0.10, ** p <0.05, *** p <0.01.

Table A3: The effects of Ebola on political support for Lega (WA migrants exposure computed with an alternative denominator)

	(1)	(2)
	Share of votes Lega	
WA migrants share (above median)*2004	0.338	
	(0.470)	
WA migrants share (above median)*2009	-	
	-	
WA migrants share (above median)*2014	-1.895***	
	(0.464)	
WA migrants share*2004		-0.487
		(3.299)
WA migrants share*2009		-
		-
WA migrants share*2014		-12.186***
		(4.109)
2004	-0.456	-0.260
	(0.581)	(0.464)
2014	0.172	-0.754**
	(0.507)	(0.350)
Electorate (log)	-3.059*	-4.162**
	(1.788)	(1.814)
Ageing	-0.039	-0.053*
	(0.026)	(0.030)
Share of immigrants	0.051	0.033
	(0.078)	(0.078)
Taxable income	-0.094	-0.103
	(0.095)	(0.095)
Presence of RRC	1.246	1.708
	(1.327)	(1.533)
Std Dev Vote Share	-	11.342
Std Dev WA migrant share	-	0.059
Effect of Std Dev Δ in 2014 WA migrant share	-	0.718
Observations	6,950	6,950
R-squared	0.091	0.088
Number of municipalities	2,321	2,321
Region by year fixed effects	YES	YES

Note: Column 1 shows the effect of Ebola on political support for the Lega party using the treatment variable as a dummy equal to one for values above the median of the *WA Migrants share*, defined as the ratio between the count of (legal) resident migrants in municipality i from West African countries (*RE resident migrants*) and the total count of (legal) resident migrants from West Africa in Italy (*Total RE resident migrants*) in 2004. Column 2 shows the effect of Ebola on political support for the Lega party using the treatment variable as a continuous variable. Standard errors clustered at the municipal level in parentheses; * p <0.10, ** p <0.05, *** p <0.01.

Table A4: WA immigrants and the local political cycle

	(1)
	WA migrants share
Two years before elections	-0.443
	(0.328)
One year before elections	-0.232
	(0.345)
Election Year	-
	-
One year after elections	-0.155
	(0.337)
Two years after elections	0.074
	(0.358)
Share of immigrants	-0.041
	(0.035)
Ageing	0.053
	(0.036)
Taxable income	-0.035
	(0.046)
Presence of RRC	1.696**
	(0.718)
Observations	29,995
Number of municipalities	2,317
R-squared	0.015
Year fixed effects	YES
Region by year fixed effects	YES

Note: Column 1 shows how the *Share of WA Migrants* evolves at the municipal level around the time of elections. Standard errors clustered at the municipal level in parentheses; * p <0.10, ** p <0.05, *** p <0.01.