Bearing the Brunt: The Effect of COVID 19 and Socioeconomic Disparities on Estonia's Russian Speaking Minority

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Abstract

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On December 10th of 2020 Estonia's eastern county of Ida-Viru became the first Estonian county to top a 14 day average of 1000 COVID infection per 100,000 inhabitants. Ida-Viru would go on to average an infection rate between 900 and 1200 for the next several months. The capital city Tallinn soon followed Ida-Viru's example, breaking the 1000 per day barrier on February 25th (Kooronakaart). What is significant about both Ida Viru and Lasnamae—apart from them representing the first major outbreaks in Estonia and their continued low vaccination rates—is that both areas are majority Russian speaking. Lasnamae's population is roughly 60% Russian speaking, while Ida Viru—which contains the city of Narva—is upwards of 75% Russian speaking (Statistics Estonia). This raises the question: "Why were these heavily Russian speaking areas of Estonia hit disproportionately hard during this Spring 2021 COVID Wave?" Taking data from Estonia's COVID 19 database, the 2017 EVS, and Estonian censuses, this paper uses the COVID 19 pandemic as a lens through which to evaluate ongoing socioeconomic disparities within Estonia as they relate to the Russian speaking minority.

Table of Contents:

I. Introduction

Across the globe the COVID 19 pandemic has thrown societal inequalities into sharp relief. Even in the most industrialized countries, the disproportionate brunt of the pandemic—be it health related or economic—has been born by minority communities who are particularly vulnerable to health crisis for a number of societal and institutional reasons. This is no different in the Baltic country of Estonia. While initially very successful in containing the spread of the Coronavirus, cases began to spike in late 2020 and early 2021. Among one of the first communities to be heavily impacted was Estonia's Russian speakers, who are largely concentrated in eastern regions such as Ida Viru Country (which contains the heavily Russophone city of Narva), as well as in some districts of the capital, Tallinn. This rapid proliferation of COVID 19 among Russian speaking communities in early 2021 can largely be explained by socioeconomic and health disparities which fall along social divisions that often mirror divisions of native language. Russian speakers in Estonia, on average, are more likely to live in multi-family homes, have lower incomes, and face a number of pre-existing health conditions, all of which make this population more vulnerable to health crisis. Furthermore, the health and education disparities in particular, combined with the high levels of consumption of Russian origin misinformation, continue to make these populations resistant to vaccination, despite the outsized impact COVID has had in their communities.

This paper will investigate the causes of COVID 19 spread throughout Russian speaking communities in Estonia, and use the COVID 19 pandemic as a lens through which to view broader societal inequalities which affect this minority. It will include data from the Estonian COVID Database, Estonian Census data from the last several years, and European Value Survey data from the 2017 wave. It will also tie in recent studies done on COVID and minority groups around the

world, in order to help demonstrate that these socioeconomic factors are playing a major role in exacerbating viral spread.

This topic is important, not only because understanding the spread of COVID 19 is an especially timely issue, but also because the pandemic is simply the most recent example of disparities existing between residents of Estonia who claim Russian as their native language and those who claim Estonian. There is a wealth of evidence which suggests that Russian speakers in Estonia have lower incomes, worse housing conditions, and lower education—which in turn makes them more susceptible to Russian origin misinformation campaigns—than their Estonian speaking peers. COVID 19 has simply illuminated these issues in a new way. Due to Estonia's shared border with Russia (which is increasingly attempting to weaponize Russian enclaves abroad), the situation of Estonia's Russian speaking minority is not only a human rights issue but also one that affects Estonia's national security.

II. Background: Russian Speaking Minorities in the Post-Soviet Space

In order to evaluate the complex situation of Estonia's Russian minority it is first important to understand the recent history of Russian speakers in the Baltics and the former Soviet Space more broadly. While Estonia has always contained a Russian speaking minority, prior to WWII this group was relatively small—no larger than 23,000—and largely located in eastern areas of the country. However, following WWII, as the three Baltics were integrated into the Soviet Union, the central government in Moscow began moving in Russian speakers into Estonia and the other Baltic Republics to bolster a workforce which had been decimated by years of war and two waves of mass deportations (occurring in 1945 and 1951), and to aid in industrialization campaigns. Furthermore, during the Soviet Period the borders between Soviet republics were porous, allowing citizens from different republics to travel, largely unhindered, between them.

Between the years 1945 and 1991 the ethnic Russian population of Estonia increased from approximately 23,000 to around 475,000 (Statistics Estonia). This influx of ethnic Russian population was not unique to Estonia, but rather a common experience shared by Latvia, Lithuania, Ukraine, Kazakhstan, and many other republics. In 1991, the Soviet Union collapsed and the previously porous borders between republics became international borders between independent states. As a result several of the former republics now became the home of large Russian speaking minorities. While some ethnic Russians repatriated to the Russian Federation in the years following the Soviet collapse, many others—including non-Russian Russian speakers—either chose to remain in these newly independent states or were unable to return to Russia for a number of reasons. This left many post-Soviet countries and policy makers in a situation of needing to simultaneously develop their own national sovereignty, while also managing the concerns of Russian minorities which had immigrated during periods of Soviet occupation.

Beginning as early as the mid-90s these newly independent countries began to fear that the Russian diaspora could become a political force in Eastern Europe, or that the Russian Federation had the potential to become a propagator of kin-state nationalism via this diaspora group (Cheskin & Kachuyevski, 2019). In an article in published a few years after the Soviet breakup in 1994, Abdulatipov argues that the sudden change in status for Russian communities living in the former soviet republics led to considerable insecurity among said communities, which made the rise of 'New Right' political groups among Russian diaspora communities exceedingly likely (Payin et. al, 1994).

Fear over a resurgence of Russian influence, combined with a desire to legitimize national identities and languages which were subjugated under the Soviet system resulted in numerous citizenship and language laws implemented by the newly independent states starting in the 1990s and

extending to the current day. All fourteen non-Russian Post-Soviet States moved quickly to establish titular languages in the place of Russian, which had been the default language in many of these countries during Soviet Rule. While some, including Belarus and Kazakhstan maintained Russian language in a co-official capacity, the majority now considered Russian to be either a minority language, or else gave it no official status at all. Scholars such as Stoicheva have postulated that not only did these policies help the newly sovereign states distance themselves from their Russian dominated past, but also to build a new national identity (Stoicheva, 2018). Similarly in her introductory overview Pavlenko proposes than the shift away from Russian in many former soviet republics was undertaken as, "…a deliberate 'removal' of the 'colonial' language from the public sphere" (Pavlenko, 2008, p. 8), and often involved either the reduction or abolition of state-sponsored Russian language media, education, and legal documentation in Russian.

Pavlenko and Stoicheva's arguments towards titular language adoption are reaffirmed by Michael Newcity who explains that since the fall of the Soviet Union, successor states have often promoted national languages as an aspect of nation building. However, he also acknowledges the role of external actors in shaping language policy. Particularly in the European Post-Soviet States, efforts to marginalize Russian language can conflict with the guidelines set out by international actors (such as the Council of Europe) for the protection of minority languages, which are most commonly understood as, "languages traditionally used within a given territory of a state by nationals of that state who form a group numerically smaller than the rest of the state's population" (European Charter, 1992). Whether Russian qualifies as a minority language within the case of Former Soviet Countries is often a matter of debate. Nowhere has this debate been fiercer than in Ukraine, where a series of differing translations of the original charter have been used by Russian-leaning politicians to attempt to give Russian co-official status (Kolomiyets, 2020). Certainly the European Charter was not intended to protect Russian language in the Baltics, nor have there been

serious attempts in recent years to grant Russian an official status (either in a co-official capacity or as an official minority language). However, as a significant portion of the population in both Estonia and Latvia speaks Russian as their first language, and are located within specific territories that have, at least since WWII been largely Russian speaking, Russian very much fills the role of a minority language in these countries, and therefore must be thought of—at least in part—through this framework.

Russian Speakers in the Baltics:

There exists a decent number of scholarly works dealing with the experience of Russian speakers in the Baltic Countries (Latvia, Lithuania, and Estonia). Out of the three, Latvia and Estonia tend to take center stage, not only as they possess larger Russian speaking populations than the more homogeneous Lithuania, but also because as Pavlenko points out, since 1991 both Baltic states have pursed educational and citizenship policies which favor titular speakers over Russian populations (Pavelnko, 2008). Hogan-Brun's 2005 overview of linguistic policy in the Baltics found that all three countries viewed language policies as a way to reestablish titular language use within society, and as the language of the state.

However, as Ehala (2017) notes, many Russian speakers in these countries view the shift away from Russian as the de facto language as a demotion in social status, and there exists a prevalent desire among Russian speaking populations in the Baltics to see Russian recognized as a national language alongside the titular one. Alijeva goes as far as to suggest that some Russian speakers view the language policies as a form of discrimination, despite the fact that that by and large the Baltic States have attempted to accommodate Russian minorities through integrationist policies (Alijeva, 2017).

This being said, Russian speakers in the Baltics are far from a unitary category, and the collective term Russian speakers can be broken down into several sub categories. In the case of Estonia, there are three main groups whose primary language is Russian. The first, and most numerous are ethnic Russians who have Estonian citizenship. While some ethnic Russians lived in Estonia prior to 1945, this group is largely a result of soviet industrialization and resettlement programs. At present there are over 320,000 ethnic Russians with Estonian citizenship in Estonia, with 73% located in Ida-Viru County in Northeastern Estonia, and 31% in Harju County (including Tallinn). The second group, which is considerably smaller, are other ethnic groups with Estonian citizenship who nonetheless claim Russian as their native language. This includes members of Belarusian (approximately 11,000) and Ukrainian (approximately 27,000) populations, largely located in Tallinn and surrounding suburbs. Finally, there are an estimated 90,000 Russian citizens currently residing in Estonia (Statistics Estonia). This group is perhaps the least studied of the three, as due to their Russian citizenship, they are excluded from voting, as well as most surveys and censes. Due to the lack of data on this final population, they are not included in the statistics mentioned later in this paper. Therefore, the term Estonian Russian Speaker, within the context of this paper, refers to the first two categories, and excludes the third.

It should also be noted, that, even within the aforementioned groups, behavior and language is far from uniform. As Ehala and Zabrodskaja's 2014 survey study demonstrated, ethnolinguistic vitality—defined by the authors as "that which makes a group likely to behave as a distinctive and active collective entity in intergroup situations"—is much stronger in Russian speaking communities in urban areas and in the north of the country than those in the west and south, which tend to be far smaller and less homogenous. Ehala and Zabrodskaja also found that the views of Russian speakers towards their Estonian host society and language policies was highly dependent on their own

educational and professional success, as well as the degree to which their communities were integrated with or isolated from Estonian speakers.

There is also a degree of bilingualism among Russian speaking populations, oftentimes varying by location, and the linguistic homogeneity of the community. Russian speakers of Harju County (Tallinn and surrounding areas) appear more likely to be bilingual than those of Ida-Viru County, as demonstrated by a 2010 study by Zamkovaja of Tallinn University. In this study it was found that at least 42.2 percent of surveyed students attending Estonian Language schools in Harju County were bilingual in both Estonian and Russian, as compared to 16.95 percent in Ida-Viru County. As of the 2011 Estonian Population and Housing Census, 42.4 percent of the ethnic Russians with Estonian citizenship claimed to have a working proficiency in Estonian language (Statistics Estonia). According to this census, residents of rural settlements were slightly more likely to be bilingual in Russian and Estonian than those in urban centers. Unfortunately, no more recent statistics on this topic have been published since.

The Uncertain Landscape of Minority Rights under EU Law:

Before moving on to a more in-depth exploration of minority treatment in Estonia, it should be noted that the debate over Russian speaking minorities in the Baltics falls into a greater debate on minority rights in Europe. As members of the European Union, all three Baltics are bound to certain expectations regarding minority treatment. EU accession criteria makes reference towards "…the respect for and protection of minorities" (Rechel, 2010, p. 17), meaning that in order to join the EU and Council of Europe all three Baltics had to meet certain thresholds for treatment of minority groups. Estonia and Latvia for example, were both forced to amend several of their minority policies in order to join the EU. The main sticking point proved to be both countries' exclusionary citizenship and language laws, and EU accession was made conditional upon the

reform or removal of these laws. Meanwhile Lithuania's policies were generally viewed to be sufficiently in line with EU regulations (Rechel, 2010).

However, while EU policy on minorities appears—on the surface—to protect and defend the rights of minorities, the issue is far more complex and has garnered numerous criticisms over the years. As Thornberry noted, the EU at that time had yet to develop a comprehensive minority policy, and the Charter of Fundamental Rights of the European Union did not make specific reference to minority groups. This led to significant debate over the treatment of minorities in Europe, particularly in regard to Eastern Europe specifically as many sought to join the EU in the early 2000s (Thornberry, 2004).

Amendments were made to EU policy in 2007, under the treaty of Lisbon, which stipulated that legislation discriminating based on language or ethnicity would not be permitted in member states. However, as Barten argues, these changes do not appear to have made a significant difference in member state policies (2015). Indeed, in recent years numerous allegations of double standards regarding minority treatment within the EU have arisen. Henrard investigates these claims in her 2010 book and finds significant discrepancies between external and internal expectations of EU members. Henrard also pays close attention to the debate over the Framework Convention for the Protection of National Minorities (Henrard, 2010), which several EU members (including France and Spain) have not signed as of 2021.

The lack of concrete policy changes is compounded by the that fact that, generally speaking, where multiculturalism was once the accepted model in Europe, the rise of nationalism, populism, and the radical right have challenged European liberalism and policies of societal integration. In its place countries are increasingly moving towards policies of assimilation, with harsher more oppositionist policies towards minority communities (Bevelander & Taras, 2013). This trend towards

harsher minority policies is corroborated by the findings of Kuo, to argue that, due to influxes of migrants in recent years, enthusiasm for multiculturalism and policies protecting minority rights have waned considerably (Kuo, 2013). This is all to say that, while the rights of Russian speaking populations in the Baltics are, in theory, protected by EU standards, in reality there are very few binding regulations, and the overall will to enforce minority protections has diminished in recent years, or else shifted to focus on languages considered endangered. Russian, which is spoken by over 200 million people globally, can hardly be considered an endangered language, and—at least globally—faces far less threat than Estonian, which is spoken by only 1.1 million.

Russian Speakers and Socioeconomic Conditions in Estonia:

When it comes to socioeconomic disparities, scholars tend to focus on employment, housing, access to healthcare, and education. This is certainly true in Estonia, and the debate over the treatment and integration of Russian speakers in Estonia is one that has been ongoing since independence. As early as 2004, Vihalemm and Kalmus demonstrated through the analysis of two surveys, that a common belief exists among young Russian-Estonians that language plays a major role in social and economic advancement. A general sense of disadvantage based on linguistic and ethnic identity is a reoccurring theme in literature on Baltic Russian speaking populations. These findings were reinforced by the 2008 Kemppainen et. al survey of 346 Russian speaking parents in Estonia, which revealed that of the respondents 83% felt that they were considered inferior by the Estonian speaking majority. This feeling of inferiority, as well as a belief that Russian culture needed to be maintained within Estonia made parents far more likely to choose hybrid Estonia-Russian language schools as opposed to Estonian education (Kemppainen et. al, 2008). While the hybrid schools do encourage bilingualism, the overall education in these schools appears weaker than Estonian language schools, with pupils receiving poorer overall scores, and many pupils graduating

without the necessary level of Estonian language competency to advance to Estonian language university programs. As Hogan-Brun (2005) concluded, despite the protection of minority languages in the Baltics, the use of titular languages is in effect necessary in order to either attend higher education or gain employment in the public sector, which theoretically puts children educated in Russian-Titular dual language, who's Titular language skills are routinely reported as being poorer than those educated solely in the Titular language, at a disadvantage. Particularly in Estonia, which offers the most Russian language education, minority students are found to be far less integrated than in either Latvia or Lithuania (Hogan-Brun, 2007).

Furthermore, options for continuing on to higher education in Russian are limited. Kulu and Tammaru's 2004 analysis of 2000 census data concluded that—for Russian speakers in Estonia—increased levels of Estonian proficiency correlate strongly to higher education levels, which is not surprising as Estonian language is a prerequisite for entrance into higher education institutes. This is corroborated by Kasi and Ait Si Mhamed's 2013 investigation of language policy in Estonia's, Latvia's and Lithuania's higher education institutes. They found that in all three of these countries universities tend to follow monolingual curriculums in the titular language. This is not unusual, and most countries in the world pursue monolingual education systems. However, it does potentially pose a challenge to Russian speakers who, due to their education, may possess a poorer command of Estonian language. Additionally, Soler-Carbonell found that in both Estonia and Latvia, when higher education is offered in an additional language the preference is towards English language education instead of Russian (Soler-Carbonell, 2017).

Throughout the years questions have also been raised concerning the housing situation in Estonia and how this affects minority communities. A study conducted in 2019 of major cities in post-communist Europe found that, of all the cities studied, Tallinn was the most segregated city,

particularly when it came to the Estonian-Russian divide. Likewise, Tammaru's 2017 study demonstrated that the ethnic segregation in Tallinn came largely as a result of housing affordability, with Russians and other minority groups becoming focused in certain districts of the city such as Lasnamae.

While there is a great deal of scholarship on income/employment, housing, and educations in regard to Estonia's Russian population, there is significantly less regarding healthcare access and preexisting conditions. Perhaps the best study on this topic was done by researchers Lai and Leinsalu in 2015, where they established that Russian speakers in Estonia were more likely to suffer from certain pre-existing health conditions, including alcoholism, smoking, and some cancers. There have also been some studies conducted on behalf of the European Commission which showed that residents of certain Northeastern counties (such as the heavily Russian speaking Ida-Viru County) have a lower life expectancy than other areas of Estonia.

It is also worth noting that not all scholars agree about the degree to which Russian speakers are disadvantaged in Estonia. Toomis pushes back on the claim of income inequality in a 2011 analysis of ELSF data, which demonstrated that titular language proficiency was not a leading cause of the income gap between Russian and Estonian speakers in Estonia. These findings are, however, contradicted by Lindemann, who used the same data set and was able to demonstrate that Russian-speaking minorities do indeed face discrimination in the labor force in areas where the population is not well integrated due to demographic factors (Lindemann, 2014). Toomis on the other hand did not include geographic and special segregation factors as part of his analysis.

III. COVID 19 in Estonia:

Moving on to the main focus of this paper: COVID 19. Throughout the summer and fall of 2020 Estonia and its Baltic neighbors were relatively successful in managing the COVID 19

pandemic. While infection rates spiked in places like the US and UK, Estonia maintained a low infection rate. However, beginning in late December 2020, infection rates in Estonia began to increase at a rapid rate. Surprisingly, or perhaps not, the distribution of cases was not uniform across the country. Rather the outbreak, which was to continue through the spring month of 2021, was concentrated in certain districts of Tallinn where population density was high, as well as in the cities and towns in Eastern Estonia.

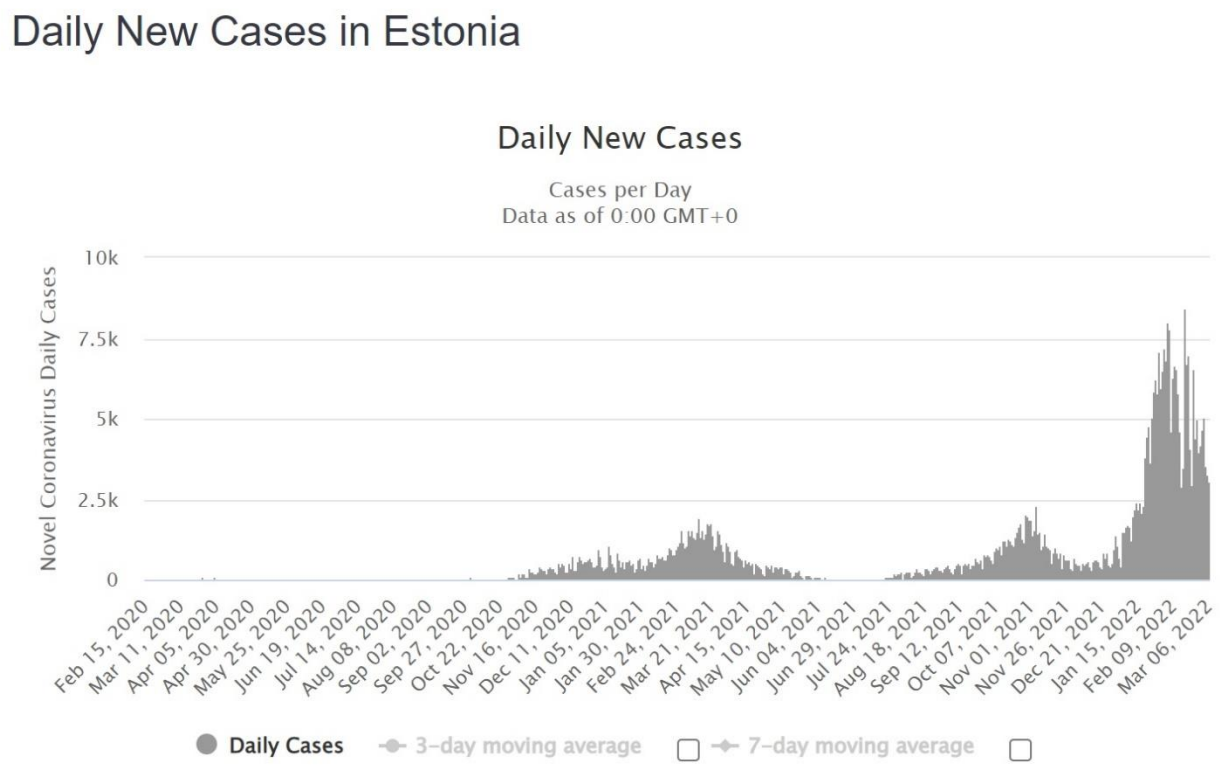

Figure 1. Daily COVID cases in Estonia from Feb 2020-March 2021, source: worldometer

Within Harju County (Tallinn) the district of Lasnamae led the countywide case counts. In eastern Estonia the city of Narva saw a dramatic increase in cases, and on December 21, 2020 Ida Viru County (which includes Narva) became the first region of Estonia to report over 1,000 daily cases per 10,000 inhabitants. It would continue to report similarly high infection rates through the

spring of 2021. Both of these regions contain large Russian speaking populations. While countrywide Russian Speakers represent 24.2% of the total population, within Lasnamae they represent 59.8%, and in Narva they constitute 87.7% (Statistics Estonia).

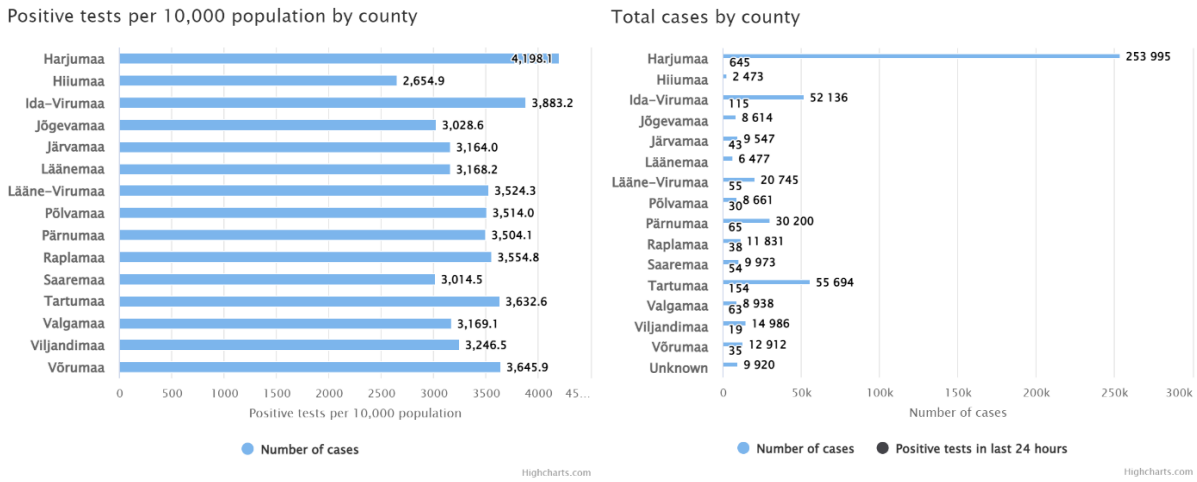

Figure 2. Left, Positive tests by county for the total pandemic adjusted by county. Source: koroonakaart.ee/en

Figure 3. Right, Positive tests by county for total pandemic. Source: koroonakaart.ee/en

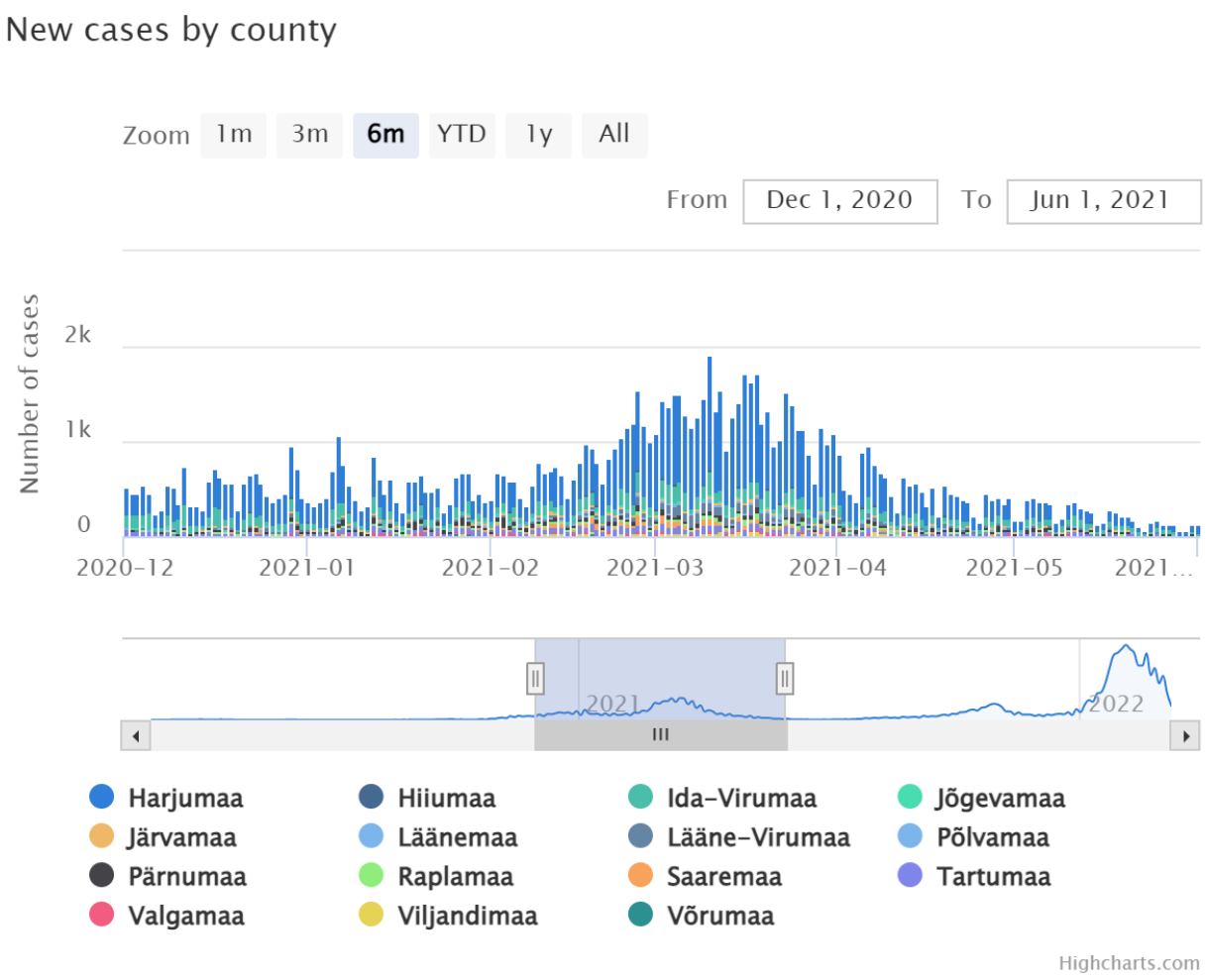

Figure 4. Daily infection rates by county between Dec 1 2020 and June 1 2021. Source: KoroonaKaart.ee/en

It should be noted that since spring of 2021, Estonia has experienced a second wave of COVID infections (lasting September-October 2021). Ida Viru County was not hit as hard by the Fall 2021 wave, which was focused more intensely in major metropolitan areas of Tallinn and Tartu. That being said, Harju and Ida Viru are still considered the counties with the first and second highest rates of infection throughout the entirety of the pandemic, at an average of 4,008.5 and 3,687.9 infections per 100,000 people respectively.

Furthermore, Harju and Ida Viru Counties have the first and second highest overall death counts for the year 2021, at 892 and 243 deaths respectively. They maintain these positions when population size is accounted for, with Harju county having the highest death rate per 100,000

inhabitants, and Ida-Viru the second highest. Most interestingly, despite its smaller population, between the months of December 2020 and February 2021, Ida Viru County had the highest per capita COVID related death rate of any Estonian county. In March 2021 Harju County overtook Ida Viru as the county with the highest per capital death rate (Health Statistics and Research Database). This of course, is during the period of the spring 2021 wave, and while Estonia has experienced subsequent COVID outbreaks with higher infection rates, it is this period in early 2021 which has the highest death rate throughout the total pandemic.

Another factor to consider when looking at COVID 19 in Estonia is vaccination levels. Starting in early 2021 the Estonian government has embarked on a nationwide vaccination campaign. The vaccines from Pfizer, Moderna, Johnson & Johnson, Novavax, and AstraZeneca are all available free of charge to residents. Considering the strength with which COVID 19 hit these communities early on in the pandemic, it would be expected to see these areas embrace vaccination in order to protect their communities from further infection. Unfortunately, however, the opposite has proven to be the case. Within Harju County, which boasts a 66.63% percent vaccination rate overall, the Lasnamae district is a clear outlier with only 58.49% percent of the people living there being vaccinated. In Ida Viru county—which contains Narva as well as several other heavily Russophone towns—the situation is even more grim. As of February 27, 2022, the percentage vaccinated across Ida Viru County was only 57.86%, the lowest of any county in Estonia. Narva itself has a vaccination rate of 55.93%. The nationwide vaccination rate was 64.45%.

The vaccination rates for both Ida Viru and Lasnamae have lagged behind national averages for the entirety of the vaccination campaign (with Ida Viru remaining the least vaccinated county since vaccines became available). It's worth noting that these recent figures are much improved from the first half of 2021, when vaccination began. During this period the elderly in Ida Viru were

particularly resistant to vaccination, as Narva physician Jelena Pitel remarked, "Most still say they are afraid. These people say they are not willing to get vaccinated at all right now." (Kallaste 2021). At the time of the interview in April of 2021 the vaccination rate in Ida Viru county was on 15.12%, while every other county in Estonia had, at that time, achieved over 25% vaccination.

IV. Understanding Socioeconomic Disparities through the lens of COVID 19

So why were the majority Russian speaking areas of Estonia so heavily affected by this first major wave of COVID 19? Ultimately the answer comes down to a number of socioeconomic factors which not only place Estonia's Russian speakers in a position of heightened vulnerability in terms of Coronavirus, but also may be contributing to the sense of social inferiority, as described in the Ehala and Alijeva studies.

In this section I will discuss the effects of Economic disparities, housing, and pre-existing health conditions in relation to the spread of COVID 19 in majority Russian speaking areas of Estonia. Additionally, I will investigate the link between education levels and vaccine hesitancy which may be playing a role in the continued low vaccination levels in areas such as Narva.

In order to demonstrate the effects of these socioeconomic factors I will be using data from the Statistics Estonia archives (a database of all major census and survey data collected within Estonia since independence), the 2017 European Value Survey, and the Estonian Governments COVID 19 Data page. I will also be tying in discussion of the articles mentioned earlier in the paper where they relate, and citing certain articles published during 2021 in ERR, Estonia's largest publicly funded newspaper.

Income and Employment

As previously discussed there have been numerous prior studies focusing on the topic of income and employment as it relates to Russian speakers in Estonia. Lindemann's 2014 study demonstrated that Russian speakers make less, on average, than their Estonian speaking peers. This effect was particularly strong in areas with high levels of ethnolinguistic segregation. Additionally a study done in 2020 at the University of Warsaw evaluated data from the Household Finance and Consumption Survey in order to gauge levels of inequality within Estonia, Latvia, Hungary, Poland and Slovakia. Estonia was found to be the most unequal country in regards to net wealth distribution. (Brezesinski, Salach, 2020).

These studies are borne out by data from the Estonian National Database. Data collected from 2016-2020 demonstrates that the unemployment rate among people for whom Russian is the domestic language is consistently higher than among those who speak Estonian domestically. Russian speakers also face higher rates of unemployment (Statistic Estonia) and make, on average, two thousand euros less per year in disposable income than Estonian speakers.

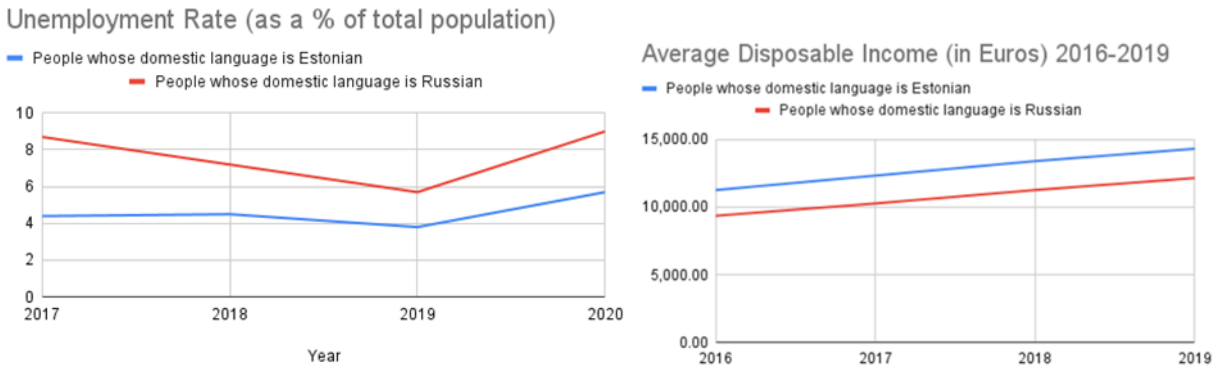

Figure 5. Left, Unemployment rate of Russian and Estonian speakers from 2017-2020, Data source: stat.ee/en

Figure 6. Right. Average annual disposable income of Russian and Estonian speakers from 2016-2019, Data source: stat.ee/en

This gap in income and economic stability is significant as studies conducted in multiple countries have demonstrated that income inequality correlates strongly with both case levels and death rates. A 2021 study conducted using data from across the US found that county level infection rates were much higher in areas with high levels of inequality. They also found that, while the association between income inequality and infection rates varied over time, it was particularly pronounced in the earliest outbreaks (occurring in the US in the summer of 2020). Similarly, a Brazilian study conducted between April and June of 2020 demonstrated that both the incidence and mortality rates of COVID 19 were more pronounced in areas where inequality was higher, and particularly within low income communities.

Moreover, the gap in disposable income between Russian and Estonian speakers is significant, as a 2020 German study showed that disposable income was among one of the most critical factors in explaining case numbers in that country. This is not surprising as lower levels of disposable income limit individuals' flexibility and ability to take time off for quarantine and other pandemic related issues. Considering the data on income disparity between Russian and Estonian speakers, the higher prevalence of COVID within these communities during the Spring 2021 wave, and the context provided by these studies, it is highly like that income inequality played a large role in the disproportionate spread of COVID within Russian communities.

	Total	Managers	Professionals	Technicians and Associate Professionals	Clerical Support Workers	service and sales workers	skilled agriculture and forestry	craft and related trades	plant machine operators and assembly	elementary occupations	armed forces
Percentage of Persons whose domestic language is Estonian	100	11.8	24.1	15.7	5.1	12.7	1.7	10.7	10.7	6.8	0.8
Percentage of Persons whose domestic language is Russian	100	7.6	15.1	12.2	6.4	14.2	.	16.5	15.8	12	.

Table 1. Percentages breakdown of employment for the year 2019 for Russian and Estonian speakers. Source: stat.ee/en

Furthermore, beyond the income divide, there is also a trend of Russian speakers within Estonia being concentrated within certain labor sectors which put them at higher risk for infection. In 2019, 16.5% of Russian speakers worked in Crafts and Related Trades and 15.8% in Plant Machinery Operators, compared to 10.7% of Estonian speakers in both fields. Furthermore, despite making up 24% of the entire population of Estonia, Russian speakers are significantly underrepresented in the professional and managerial workforce, which tends to be dominated by Estonian speakers.

Labor sectors such as manufacturing and the trades are by necessity mostly carried out in person, with very minimal options for virtual work. Meanwhile, the professional and managerial sectors were moved almost entirely online during the pandemic. This means that during the first year and a half of the pandemic a higher percentage of Russian speakers would have been expected to work in person than Estonian speakers. Working in person naturally entails a higher risk of infection, especially prior to vaccine rollout. Therefore, by virtue of their jobs, many Russian speakers were at increased risk of contracting COVID 19.

Concern over working conditions in relation to the pandemic have been echoed by local politicians in both Narva and Lasnamae. Speaking to ERR reporters in January 2021, Media advisor for Ida Viru County Jevgenia Vara claimed that, in Narva and surrounding areas, "the economy is based on the service sector and industry which runs 24-hours a day. As there are few opportunities to work from home people go to work with mild symptoms or must work until they have a doctor's confirmation they are sick." This sentiment was echoed by Lasnamae district elder Vladimir Svet (of the Center party), who claims that few people in the area work remotely and were reluctant to take sick leave over fear of lost income (Wright, 2021). Based on these statistics and the remarks of community leaders, it is doubtless that this disparity within the labor force also played a driving role in high infection rates within these communities during early 2021.

It's also worth noting that division between labor fields is also influenced by geography. Areas such as Ida-Viru County rely on heavy industry such as mining, oil shale processing, and the chemical industry. Given that a large number of Estonia's Russian speakers live in this area it is unsurprising to see that Russian speakers are more dominant in the Trades and Manufacturing workforces. This geographic division of labor sectors comes as a holdover from the resettlement policies undertaken during the Soviet period, which saw many ethnic Russians moved into these areas as they were industrialized.

Housing

Housing is another main concern when looking at the heightened rates of infection in majority Russian speaking areas in the spring of 2021. Indeed, it is this factor which is most often pointed to by both Estonian local officials and community members. In an interview with ERR in early 2021, then Narva Mayor Katri Reik claimed that the spread was due in large part to the dense housing situation, with many families living in small apartments, and almost no private dwellings

within the entire city. She explained that, "…the lifestyle of the people here is more communal, it includes a larger family and is more oriented towards the circle of loved ones. Corona does not ask about nationality or gender, but people live differently here". Similarly Lasnamae district elder Vladimir Svet (of the Center Party) notes that "in the case of Lasnamae, it must also be taken into account that the population density here is quite high, perhaps one of the highest in Estonia. And this also probably has an effect."

These remarks by politicians are supported by data from Estonia's 2011 Housing census. While somewhat older than many of the other statistics discussed here, this survey nonetheless showed that in 2011 87.86% of Russian speakers lived in apartments nationwide, as compared to only 53.7% of Estonian speakers. Beyond this, the average area of dwelling per inhabitant was lower for Russian speakers at 25.3 meters squared than for Estonian speakers at 32.4 meters squared.

Furthermore, according to 2020 figures, residents of Northeastern Estonia (which includes Ida Viru County) report the lowest levels of satisfaction with their overall living environment. Within Northeastern Estonia, Narva City has the lowest satisfaction levels, indeed the lowest of any city in Estonia, with only 2.1% of residents reporting being 'very satisfied' and 46.9% being 'rather satisfied'. This is in contrast to areas like Tartu where 15.1% of residents are 'very satisfied' with living conditions, and 75.9% 'rather satisfied' (Statistics Estonia).

Looking briefly at the Tallinn area, and Lasnamae specifically, researchers found that, "Lasnamäe has the highest concentration of Russian-speaking ethnic minorities across all neighborhoods, as well as a gradual decline in socio-economic conditions" (Kahrik 2019 p 215) Moreover, according to researchers in 2017 Tallinn is the most segregated of all three Baltic capitols, with minority groups, such as Russians, being "…constrained to the areas where housing is most

affordable." (Tammaru 2021). Meanwhile the more affluent favor new housing construction which only further fuels housing inequities (Tammaru 2021).

There are several studies carried out since the beginning of the pandemic in 2020 which link housing conditions to COVID 19 spread. In late 2020 researchers at the NYU School of Business demonstrated that high density neighborhoods and housing crowding were leading causes in high levels of virus spread during early outbreaks in the United States. In the US case this primarily affected Black and Hispanic populations (Almagro et al. 2020). Similarly, a 2021 study published in the Journal of Urban Health found that crowding within residential areas contributes significantly to the rate of spread. While urban crowding was not the particular focus of this study (the researchers focused on the effects of eviction), the researchers nonetheless demonstrated that overcrowding increases the spread of respiratory illness like COVID 19 (Benfer et. al. 2021). Given the housing situation and degree of segregation within Estonian cities it is likely that a similar phenomenon is affecting the Russian minority.

Health

As mentioned previously, Health inequalities are the least researched topic in regards to Estonia's Russian speakers. However, in 2015 Lai and Liensalu conducted a survey of health across all Estonia. In this study they found higher incidences of non-communicable diseases such as cancer and circulatory diseases among non-Estonians within Estonia, and specifically within the ethnically Russian population. They also found behaviors leading to preexisting health conditions—such as smoking and alcoholism—were higher in ethnic Russian populations. Furthermore, they uncovered that, "mortality rates remained higher among non-Estonians, the lower educated and residents of Ida-Viru county" (Lai, Liensalu, 2015). Obviously, as the Lai and Liensalu study focused only on

ethnic Russians, it cannot account for the health of other Russian speaking populations in Estonia. However, as mentioned previously, ethnic Russians remain the largest subset of Russian speakers within Estonia, while other groups make up only a small percentage.

Concerns over health disparities were also echoed in a report compiled for the European Commission on the overall state of health and healthcare in Estonia, which reported that the life expectancy for residents of Northeastern counties of Estonia was significantly lower than other areas of the country (EU Estonia State of Health Report, 2019). These statistics fit with the Estonian government's own data on the health of residents by geographic location. In 2019, the Northeastern regions of Estonia reported the highest percentage of residents whose health was considered bad or very bad (22.1%) as well as the lowest percentage reporting good or very good health (34.8%). This can be compared to the national average of 56.9% in good or very good health and only 13.3% in bad or very bad health.

One of the major concerns related to the high prevalence of poor health in the Russian dominated area of Northeastern Estonia is that, in the case of health crisis such as COVID 19, preexisting conditions drastically affect survivability rates once infected. This would mean that not only were Russian speakers more likely to contract COVID 19 in early 2021 for reasons addressed in earlier sections, but also that, once sick, the mortality rate may have been significantly higher within this population.

As mentioned during the section on COVID 19 in Estonia, Harju and Ida Viru Counties remain the two counties with both the highest total death counts, and the highest per capita death rates in Estonia. Death rates were particularly high during the period between December 2020 and May 2021, with Ida Viru leading the national death rate between December and Februrary, only to be overtaken by Harju County in March 2021 (Health Statistics and Research Database). Due to the

high percentage of Russian speaking inhabitants in both these areas—and particularly in Ida Viru—it is likely that Russian speakers constitute a disproportionate number of the total deaths related to COVID 19 in Estonia.

Media Consumption and COVID 19 misinformation

While this paper focuses largely on socioeconomic factors, it is impossible to ignore the role that media plays in regard, specifically, to vaccine hesitancy. There is significant evidence that Russian-origin news networks have spread misinformation both about vaccines and the COVID 19 pandemic more generally (Emmot, 2021). At present, the vaccination rates of majority Russian speaking areas lag behind Estonia's national average of 64.47%. In Ida-Viru county the rate of vaccination is 57.86% (55.93% for Narva specifically), and in Lasnamae it is 58.49%. Therefore, it is highly likely that Russian origin narratives concerning COVID and vaccination are shaping public perception towards both issues among Estonia's Russian speaking population.

We know that Russian speakers in Estonia consume Russian origin media, as in 2015 the Centre for International Defense and Security conducted interviews with Russian speakers of various backgrounds in Tallinn, Narva, Valga, Sillamae, and Kohtla-Jarve. They found that, at the time, Russian speakers and Estonian speakers occupied almost entirely separate information spaces, with at least three quarters of Estonia's 300,000 Russian speakers regularly watching Russian broadcasting. At the time RT, First Channel, and RBK were among some of the most popular TV channels for Estonian Russian speakers. All of these channels are in some way sponsored by or connected to the Russian government, and have been known to spread misinformation (Wright, 2020).

The Estonian response to this has been an increase in funding directed toward domestically produced Russian language content. In 2015 ETV launched ETV+, a Russian version of ETV,

which is a free television channel operated by Estonian Public Broadcasting (Doughtery, Kaljurand, 2015). Furthermore, in 2020 ERR (a publicly funded Radio, TV, and online news organization) launched a Russian version of its online media literacy campaign Meediataip (ERR Annual Report 2020). The introduction of ETV+ has been fairly successful thus far. As can be seen in the figures below, ETV+ has steadily grown in viewership since its introduction in 2015. Meanwhile the Russian-origin channel RBK (PBK) has experienced decreasing viewership over the past six years.

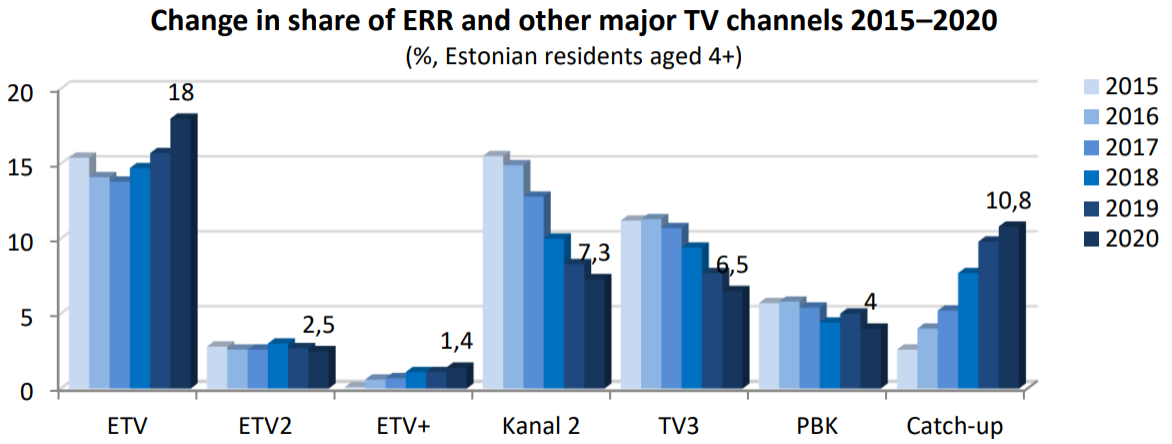

Figure 8. Percentage of viewership of Estonians (aged 4+) across major television networks. Source: ERR Annual Report 2020

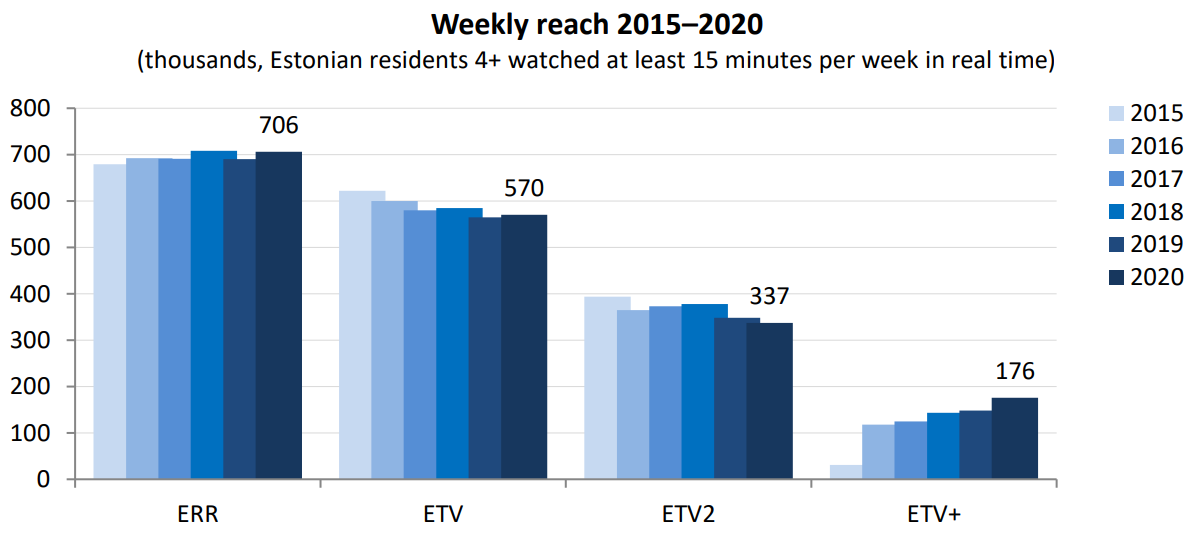

Figure 9. Average weekly viewership of Estonian television networks. Source: ERR Annual Report 2020

Despite this, Russian attempts to influence Estonia's media spheres have not decreased in recent years. In early 2021 the Estonian Internal Security Service (ISS) published its yearly review in which it noted an increase in Kremlin activity within Estonia's media space over the year 2020. Messaging focused around coronavirus denial and vaccine hesitancy in particular saw a surge across Russian-origin media outlets, in addition to more traditional topics aimed at reducing trust in democracy (Internal Security Service). Moreover, while ETV+ and other Estonian produced Russian language news sources have increased their viewership throughout the pandemic period, RBK remains the most popular source of Russian language programing and news.

It should also be noted that, in February of 2022, as a response to the Russian invasion of Ukraine, many major Russian news networks such as RT were banned across the EU (previously they had been banned in a limited number of countries including Latvia and Germany). Doubtless this decision will have an effect on the Estonian Russian language media environment. However, as this action occurred after the period evaluated in this paper it cannot be considered a factor.

Education

The final factor which fits into this equation is that of education. Not only is education believed to play a major role in vaccine hesitancy across the globe due, as it makes individuals more susceptible to the sorts of misinformation discussed above, but it also serves as an informing element to some of the other factors which we have discussed above. Income and employment opportunities in particular are highly informed by an individual's education level. Additionally, in 2015 Lai and Leinsalu demonstrated that education level correlated strongly with health outcomes and preexisting conditions.

While Estonia has a single education system, within this system exist two different types of school. In first, and most common, all subjects are taught in Estonian. The second type follows a 60-40 model, wherein 60% of courses are taught in Estonian, and 40% in another language, most commonly Russian. The majority of these 60-40 school are located in Tallinn or in Ida Viru County, where Russian speakers are more heavily located. The purpose of the 60-40 system is to encourage bilingualism—prior to 2011 the 60-40 school taught only in Russian with no Estonian language—and while they do accomplish this task, it is clear from numerous studies that enrolment in these bilingual schools can also disadvantage students, and reinforce division between native Russian and Estonian speakers. As Kunitson found, "the different school communities do not interact with each other during the compulsory education period, meaning that their social networks will differ significantly, which has a direct influence on the future labor market perspectives" (2021). Additionally, the quality of education in these Russian-Estonian schools may be lower than Estonian language schools as results for students in the 60-40 schools are considerably worse than other schools, and that by the age of 15, the gap between Estonian and bilingual schools is 39 points, which equals approximately one year of education (Poder et al. 2017).

Beyond this, Russian speakers who are educated in these bilingual schools are less likely to go on to higher education than those children educated in Estonian only schools (Lindemann, Saar, 2011). According to census data, the percentage of Russian speakers who receive post-secondary education (i.e. university level and beyond) is lower than among Estonian speakers by an average of at least 3 percentage points (Statistics Estonia) (see figure 7 below). While this percentage is small, it is still worth noting its possible influence, particularly as education informs many of the other factors outlined in this study.

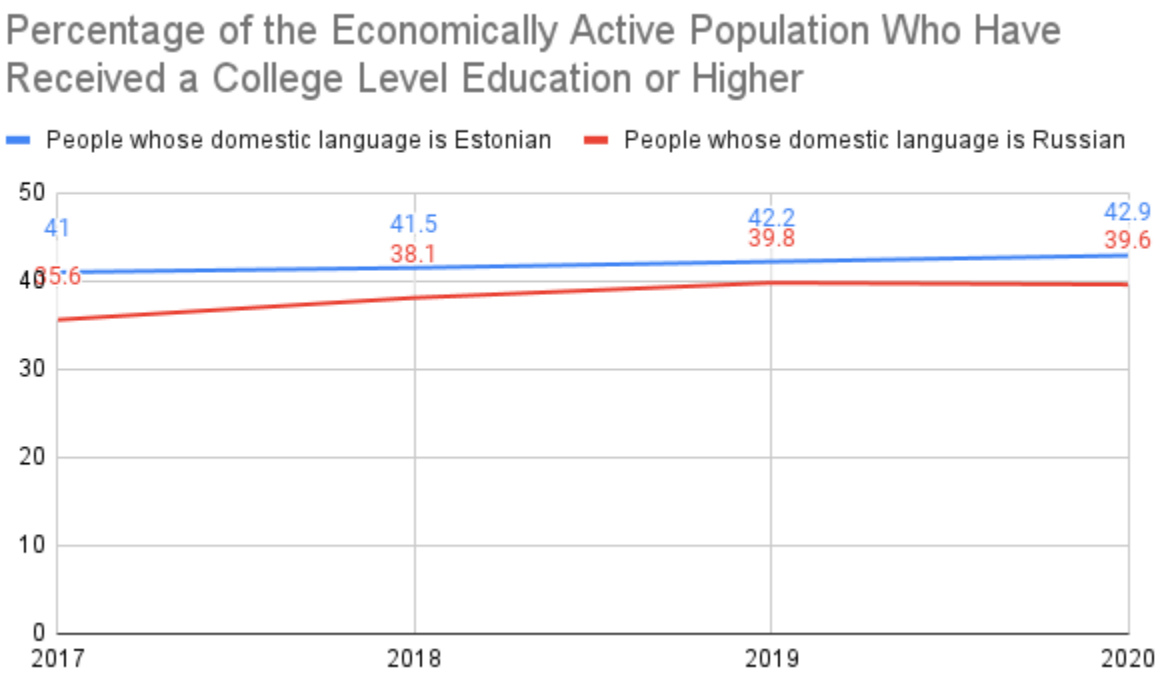

Figure 7. Percentage of economically active Russian and Estonian speakers who possess a university level education or higher from 2017-2020. Source: stat.ee/en

Survey item	Russian Speakers	Estonian Speakers
What is the highest educational level you have obtained? V243 (0= no primary education, 8=doctoral or equivalent)	3.6688	4.1905
How much confidence do you have in the education system? V117 (1=a great deal, 4= none at all)	2.0990 (295)	1.9904 (935)

Table 2. Averages of responses on education from the European Value Survey 2017/2020 wave. Data source: zacat.gesis.org

This finding is further supported by the results of the 2017/2020 European Value Survey. According to EVS data, Russians speaking respondents had, on average, significantly lower levels of education than Estonian speakers (see Table 2). Russian speakers also demonstrated slightly less confidence in the Estonian education system overall.

A main factor in this education gap may be the lack of adequate Estonian language preparation which occurs at the secondary school level within the 60-40 schools, which in turn limits students' ability to qualify for the Estonian language university programs. As mentioned previously, despite the 60-40 model requiring education be performed partly in Estonian, many of the graduates of these schools have significantly poorer Estonian language than students who attend schools taught solely in Estonian. This trend is evident in the 2019 data on admission to higher education programs at Estonian universities. In 2019 Russian speakers represented only 15.4% of students admitted into Bachelors Programs, 8.72% in Masters Programs, and 9.09% for Doctoral study. This is despite Russian speakers making up at least 24% of Estonia's total population. Meanwhile, students whose native language was Estonian represented 75.53% of students admitted to Bachelors programs, 67.01% in Masters, and 54.55% for Doctoral study. Native Estonian speakers made up 68.8% percent of the Estonian population as of 2021 (Statistics Estonia). There are a few exceptions

where university programs in Estonia are taught in a language other than Estonian. However, in all these cases the alternate language of instruction is English, as opposed to Russian, and curriculums are clearly designed to appeal to international students as opposed to the Russian speaking minority (Soler-Carbonell, 2017). All this combined, means that when seeking higher education, Russian speakers with weaker Estonian language skills are limited in which programs they can study.

While it is unclear whether education plays a major role in actual infection rates beyond its influence on factors such as employment and health, it is likely that it does impact vaccine hesitancy, which as mentioned earlier is also exacerbated by Russian origin disinformation. Education is potentially very important when it comes to vaccine hesitancy rates. Studies published in early 2021 in the US demonstrate that—within the US context—education level is one of the main determining factors in peoples' willingness to get vaccinated. The survey found that, at the time, "…76% of U.S. adults with at least a bachelor's degree had been vaccinated or planned to get vaccinated, compared to just over half of adults (53%) with less education…In other words, a college degree is associated with a 43% increase in the likelihood that someone plans to get the vaccine." (Thomas, Darling, 2021). Obviously these numbers reflect attitudes within the US population, and it is not certain that these findings can be applied to the current situation in Estonia. However, it is nonetheless worth considering that education level might be impacting willingness to be vaccinated, especially when Russian speakers consistently report lower education levels and lower vaccination rates than their Estonian peers.

V. Discussion and Significance

Based on the above findings, it is apparent that inequalities are still very much present within Estonian society and are likely playing a major role in the high COVID infection rates among Russian speaking communities. Income, housing, health, media disinformation, and education could

all be determining factors in the rate of COVID 19 spread as well as vaccine hesitancy. As a result of these factors majority Russian speaking communities experienced high infection rates during the initial wave of infection in early 2021, lingering low vaccination rates, and perhaps most importantly, a potentially oversized share of COVID 19 related death.

The significance of these findings are threefold. Firstly, it is clear that Russian speakers in Estonia represent a population which is particularly vulnerable to public health emergencies. This is not necessarily surprising, and falls in line with the global trend of minority communities being impacted especially hard during times of health crisis.

Both in the current pandemic and in any future ones, understanding the factors which put a specific group at heightened risk is important in order to enact effective health policy. Furthermore, when it comes to vaccine hesitancy—which affects health beyond Russian speaking communities—it is critical to ensure that the vaccination campaign continues. The Estonian government does appear to be responsive to this vulnerability in so far as it relates to COVID. Following the 2021 Spring wave several measures were introduced, including an increase in Russian language COVID safety information, and a number of specialized vaccination campaigns in Narva (Kallaste, 2021). While increased efforts to improve health policies related to the Russian minority are useful in forestalling future COVID 19 resurgences (or outbreaks of other diseases), they do not address the underlying conditions which place this community at heightened risk. In this sense COVID 19—and the effect it has had in Estonia—has helped to shine a light on existing inequalities.

As mentioned in the background section, Estonia abides by certain standards of minority treatment by EU law. However, as was also touched upon, EU minority policies are far from comprehensive. Furthermore, many prominent members of the EU undermine the existing policies on minority treatment, including both Spain and France who as of 2022 refuse to sign the

Framework Convention for the Protection of National Minorities, largely due to their opposition to Islamic minorities and migrants. Estonia has signed this treaty as well as the 2007 Lisbon treaty (which bans discrimination based on language or ethnicity), and it must be noted that the situation of Russian speakers in Estonia is significantly better than some other minority communities in other European countries. However, while Estonia has certainly made progress in terms of integration since its independence in 1991, the example of COVID demonstrates that while these efforts have been successful insofar as they have avoided major ethnolinguistic animosity and strife, that there are still improvements to be made in regards to Estonia's Russian speakers, particularly within the realm of providing language learning services, better housing opportunities, and health support.

Furthermore, the issue of COVID 19 in Estonia has the potential to act as a case study for broader study of minorities and COVID. This paper does not investigate the situation of other minority groups across Europe during the pandemic. However, the findings here suggest that similar disparities in caseloads may have occurred in other countries, due to the tendency of socioeconomic disparities to negatively affect minorities. A survey of minority experiences during the pandemic would be an interesting and valuable topic for future research.

Finally, and perhaps most critically, there is the geopolitical importance of Russian minority communities within the Post-Soviet Space. As evidenced by the 2014 Crimea annexation, and more recently by Russia's unprovoked invasion of Ukraine, the Russian government regularly utilizes the rhetoric of 'protecting ethnic Russians abroad' in order to justify its aggressive actions in surrounding countries. These actions are taken under the auspices of protecting and reunifying the 'Russkiy Mir', which Vladimir Putin himself defined as,

> "Our compatriots, Russian people, people of other ethnicities, their language, history, culture, their legitimate rights. When I say Russian people and Russian-speaking citizens, I

> mean people who sense that they are a part of the broad "Ruskiy Mir", not necessarily of Russian ethnicity, but everyone who feels to be a Russian person" (Putin, 2014).

Within this imagined community of global Russian speakers it became the Russian Government's "…duty to "protect" the interests of Russian speakers in sovereign countries by supporting their own quasireferendums, or even intervening in sovereign countries" (Jurevicius p. 132). There is little doubt that Russian speakers in Estonia also fall into the Russian government's conception of the 'Russkiy Mir'. Since 2003 Putin has repeatedly accused the Baltics of perpetrating human rights violations against their Russian speaking minorities. Moreover, he has stated that his ultimate goal is to reunite the Soviet Union, which would include the Baltics.

While Russia has yet to directly threaten Estonia militarily, past accusations of human rights violations, the demand that NATO troops be rolled back from all three Baltics in early 2022, and the latest invasion of Ukraine have all stoked fear within Estonian society that perhaps the Baltics will be next. The ongoing inequalities between Russian and Estonian speakers threatens to increase negative sentiments among Russian speakers, and amplify the threat that Russia will attempt to use exaggerated narratives concerning the so-called mistreatment of Estonian Russian speakers to pursue future actions against Estonia (be they military or merely socially disruptive).

The Estonian government is not unaware of the potential of Russian influence over this population. Over the years Estonia has attempted to 'shore up' against the potential for foreign exploitation of the Russian minority through a number of integration policies over the years, including the protection of Russian language education, increased support for naturalization, and facilitation of Estonian language learning. To a certain extent this has been successful. Recent studies of Russian speakers in the Baltics suggest "…a strong territorial identification with Estonia

and Latvia among Estonian-Russians and Latvian-Russians where the overwhelming majority of them identify Estonia and Latvia as their only homeland" (Kallas, p 4).

However, as evidenced by the socioeconomic factors highlighted in this paper, there is still work to be done in terms of total integration of Russian speakers in Estonia. The findings of Ehala's 2017 study demonstrated a common perception among Russian speaking respondents that they felt socially and economically inferior compared to their Estonian speaking peers. While some scholars dismiss this perception as a remnant of the privileged status enjoyed by Russians during the Soviet period, this study—through the lens of COVID 19—has demonstrated that there is indeed some basis behind this sentiment. So long as Russian speakers continue to feel disadvantaged, there remains a risk that such grievances will be coopted by the Kremlin.

That being said, there is little evidence to suggest Russian speakers in Estonia would welcome a return to Russian control. As Kallas noted in a policy brief for the BEAR Conference, "Even if there are still significant inequalities in terms of income, access to top jobs and opportunities in politics, the life which most Russians have built in Estonia and Latvia is stable. They have a lot to lose from sudden disruptions of the regime." (Kallas, 2021 p 8). Russian speakers in Estonia face certain socioeconomic disparities, however, their standard of living is still significantly higher than it would be if Narva and other Russian enclaves became parts of Russia. Rather the fear is that Russia will utilize the grievances of Russian speakers to justify action against Estonia to its own domestic population, or else to spread disinformation among Estonia's Russian minority which ultimately weakens the Estonian state.

VI. Conclusions

COVID 19 remains a developing situation in both Estonia and the rest of the world. However, by looking at the early waves of infection it is possible to both identify vulnerable

populations, as well as shine a light on underlying societal inequalities. In the Estonian case it appears that Russian speaking communities were disproportionately impacted by the first major COVID 19 wave. Income, employment, and housing inequities have all been shown to be major factors in the rapid spread of COVID through Russian communities. Meanwhile, there is evidence to suggest that education and media consumption affects vaccination rates, a number which lags in Russian dominated areas of the country.

There are many reasons why understanding the spread of COVID 19 among Estonia's Russian minority is important. Not only are the findings of this paper concerning from a public health perspective, but perhaps more critically, COVID 19 acts as a lens through which to view ongoing socioeconomic inequalities. Russian speakers in Estonia have long complained of feeling inferior or lower class than their Estonian speaking peers. These findings suggest that there is some basis in these claims. Especially in a time when the Russian Federation is adopting an increasingly aggressive stance towards neighboring countries with Russian enclaves, the integration and perceived class status of Russians within Estonia is now, more than ever, a matter of national security. Hopefully, the attention shed on Russian speaking communities by the pandemic will help spur Estonia's policy makers to address these underlying inequalities. Improvements to housing availability, more support for Estonian language learning programs (including raising the standards of the 60-40 schools), and public health programs to address the ongoing poor health in certain Russian speaking communities, could all be critical in finally closing the socioeconomic gap between Russian and Estonian speakers.

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