

Trade, Production, and Disease in the Middle Ages

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Abstract

In the late medieval period, trade and production created conditions conducive to disease spread, and these diseases, in turn, also had implications for economic development. Typically, historians have tended to emphasise the major redistributive effects of the Black Death – the idea that an affliction which killed large amounts of people but kept resources intact created post-epidemic ‘bonuses’ for those that survived. Nowadays, however, we are more receptive to the idea that (a) not all social and demographic groups benefitted equally from this outbreak, and (b) epidemics had direct economic costs, rendering the previous idea of ‘intact resources’ incorrect.

Keywords: Epidemics; Disease; Trade; Commerce; Production; Spread; Plague; Economic; Redistribution; Health

The relationship between medieval economic activity and the incidence and characteristics of disease was complex. Trade and production sometimes created conditions conducive to disease spread, and these diseases, in turn, sometimes had implications for economic development. Recent work has tried to privilege commerce as a causal factor – for example, linking the Black Death (1347–52) and recurring plague incidence and spread in Europe to nodes between navigable waterways and trade routes. However, others have urged caution about attempts to standardise irregular and difficult-to-interpret documents to create ‘datasets’ said to represent geographical distribution of plague (Roosen and Curtis, 2018). And while trade and production were likely very important, it is also likely that they interacted with a host of other potentially significant variables including warfare, migration, and climate change, which are challenging to unravel (Green, 2020, 2018; Caferro, 2018).

Although rural areas in the Middle Ages were sometimes commercialised, commerce’s stronger association with urbanisation means that we might intuitively conclude that diseases

tended to proliferate more in cities and towns. People and goods frequently moved in and out of urban environments, marketplaces dealt with goods that could spoil (food), attract vectors (lice in cloth), or act as vectors (animals), and pollution and waste could create negative health impacts on residents. Coastal cities far apart from one another, furthermore, were often linked by shipping routes, and the recent discussion on the timing and localisation of the processes that led to the Black Death eventually spreading through Europe has focused, once again, on the connection between long-distance movement of grain on ships and the prevalence of rats (Barker, 2021).

We can nuance this further in two ways. First, more recent scholarship has suggested that medieval cities were not as unhygienic and dirty as previously supposed (Rawcliffe, 2013) – particularly when compared to early modern cities (Van Oosten, 2015) – and that urban administrators often attempted to achieve a harmonious balance between regulation of trade in food, animals, and textiles, and maintaining economic networks (Coomans, 2021; Geltner, 2019). Much of this required effective integration of ‘top down’ services and ‘bottom up’ regulation of individual behaviour (Jørgensen, 2008). Furthermore, many of these environmental regulations of the trading environment pre-dated the Black Death – forcing us to reconsider the temptation to see this plague as an almighty rupture point in medieval societies’ understanding of ‘managing’ disease (Geltner, 2020; Peterson and Krolikowski, 2022; Carr, 2008).

Second, plague and other epidemic diseases also occurred in the countryside – sometimes in very isolated and scarcely populated areas characterised by less market-dependent forms of peasant agriculture, and sometimes leading to excess mortality parallel to or even exceeding the cities (Roosen and Curtis, 2019). Indeed, whilst trade and production in urban areas likely led to a greater presence or frequency of disease – and certainly created burdens that pushed up the likelihood of chronic afflictions, other contagious afflictions such as leprosy, and especially respiratory problems such as tuberculosis – the less frequent prior exposure of rural people to different microbes might have made epidemic outbreaks more severe for residents in the countryside. As production intensified in cities of northern Italy from the thirteenth century onwards, many urban administrators saw the surrounding countryside as a ‘sink’ for waste (Geltner, 2022) – waste that led to intestinal afflictions such as dysentery. This urban-rural link was truly circular (on ‘porosity’: Weeda, 2022), however, as crops produced via urban human faeces as manuring also created potential for contamination of the food marketed and consumed within cities (Graff et al., 2020). Others have pointed to the role of the less diverse diet in, especially isolated, rural areas (Kowaleski, 2014) – although access to important proteins might have improved with more meat and dairy in some diets after the Black Death in northern Europe (Thoen and Soens, 2010).

1 Work burdens and disease

Certain types of occupation in the Middle Ages were more closely linked to diseases than others. Particular sectors such as mining and work onboard ships created the types of physical conditions typified by damp, stench, and darkness, that most clearly tied in to the prevailing medieval miasmatic interpretations (the Galenist paradigm) of health and vulnerability to sickness (Geltner and Weeda, 2021). The same applied to any trade in foods that could go rotten, producing a stench (Carr, 2008). As expected, sex workers were highly vulnerable to contracting debilitating sexually transmitted diseases, although the moral coding of their lives and status also meant that they were linked closely to the spread of

other diseases such as plague which did not necessarily have anything to do with their work per se (Karras, 1989). On a related note, while for a long time it has been argued that afflictions such as syphilis only appeared in Eurasia at the end of the Middle Ages (from 1494/5) because of European voyages to the Americas (Harper, 2011), more recent bio-archaeological and genetic evidence is starting to point towards its presence before this date – without being conclusive about its precise relationship to spiked epidemic mortality (Hartley, 2020; Curtis, 2021a).

Elsewhere, rural agricultural workers often encountered conditions leading to fevers – marshy environments were conducive to the vectors (mosquitos) producing malaria and agues – and the direct relationship with intensification of agricultural production is revealed in the increased amount of marshland brought into a cultivable state from the high Middle Ages onwards. Although (especially pregnant) women were more vulnerable to the effects of malaria, the greater number of adult men working out in the fields in these environments likely heightened their physical exposure. When considering gender-selective outcomes in susceptibility to disease infection and mortality, we should always consider the possibility that more of one gender were present in a particular medieval economic environment – usually more men in the countryside, more women in urban areas – although more systematic research is still being done on this subject (Bailey, 2022).

Women's economic contribution often was more connected to the domestic household – as care-providers for others, in service (also linked to greater incidence of spinal and joint disease: Lewis, 2016), supervising animals such as pigs (Geltner, 2022), or involved in brewing or spinning (Bennett, 1996). Accordingly, women were more exposed to any sickness passed on by others in these confined environments – and recent research has suggested that adult women tended to die in greater numbers during medieval plagues and other epidemics than men (when compared to 'non-epidemic' years: Curtis and Roosen, 2017; Curtis, 2021a), and especially carried the burden of respiratory sicknesses (Lewis, 2016; Schats, 2019), although this is not a finding supported everywhere in all periods with all methods. Although advances in bio-archaeology are allowing us to draw more detailed connections between occupations, living standards, and diseases, the fact that some (like leprosy or tuberculosis) leave more traces on the human skeleton means that our knowledge of other diseases which leave fewer traces, or none (such as malaria), is disproportionately reduced despite their likely importance (Rawcliffe, 2013).

2 Earning from disease

Medieval epidemics could at times, and perhaps surprisingly, encourage trade in certain sectors. For example, inhabitants of both cities and countryside across Europe often looked to acquire spices and herbs to treat afflictions – many of which had travelled long distances from different parts of Asia or north Africa. And in Song, Yuan, and Ming dynasty China, while certain meats and fish were highlighted for their potential role as bringers of sickness, the consumption of others such as otter or salted and dried rooster were revered as disease prophylactics (Lu, 2021). Furthermore, epidemic outbreaks such as plague also created new kinds of work such as those paid to act as cleaners, fumigators, caregivers, testament readers, and codifiers of bodies in infected houses. People were paid to bring food and resources to houses undergoing domestic enforced isolation through infection, as well as to take care of the children, tend the crops, or look after the animals. Thus, on the one hand, the rewards could be financially lucrative – not just in wages but obtaining parts of the inheritances of the

deceased. Yet on the other hand, the risks were clear, not just with the chances of infection, but also the social stigma and distrust that went with the work. Poor women often took on these roles (although by the early modern period, the gender and socio-economic profile varied considerably according to context), and anecdotal evidence shows cases of maltreatment, harassment, and violence (Curtis, 2021b). Still, a lot more systematic research needs to be done on this aspect of the micro ‘disease economy’, as a window into the lives of communities’ most vulnerable, both for the early modern and the medieval periods.

3 Epidemics and redistribution

As well as being affected by trade and production, diseases had economic impacts too. Typically, historians over the years (in fact, already being observed in the nineteenth century) have tended to emphasise the major redistributive effects of the Black Death – the idea that an affliction which killed large amounts of people but kept resources intact created post-epidemic ‘bonuses’ for those that survived. This was a key component of the older ‘golden age of the labourer and peasantry’ literature but has remained remarkably resilient in recent significant literature too – one of the principles discussed in the ‘great leveller’ redistributive framework for epidemics (Scheidel, 2017), and still an accepted cornerstone behind narratives of a long-run economic rise of (parts of) Europe in global perspective (Belich, 2022). And certainly, redistribution in the aftermath of the Black Death moved beyond population, wages, and resources – it also stimulated the physical movement of people to new areas and some new economic opportunities in certain places. While we are now aware that the Black Death itself did not create too many deserted settlements through the direct mechanism of mortality (Dyer and Jones, 2010), people did abandon rural sites (Callow and Evans, 2016) – either lured to ‘better’ ones or felt the pull of the city. Rural people, furthermore, adapted production (sometimes converting from arable to pastoral), took on new types of tenurial contracts, and even saw the flourishing of commercialised micro-economies such as in wet nursing (Curtis, 2012; although much was coercive: Winer, 2017).

However, others have already suggested caution in applying basic redistributive principles connected to the Black Death as a general model for other medieval and early modern epidemic outbreaks (Alfani and Murphy, 2017), and there are other more specific reasons connected to trade and production that might at least temper more ‘optimistic’ interpretations of the economic impact of the Black Death, and other medieval epidemics. Of course, while urban and rural real wages technically rose in the aftermath of the Black Death (with a debate on the differences of extent and timing across regions of Europe, and the interpretation of what these wages ‘signified’), the loss of large populations also meant not just a redistributive impact but an aggregate one. Economies contracted – providing less work for survivors (Campbell, 2016). This point was well illustrated in the recent literature on sex-disaggregated wage data from England, where women did not share in the ‘Black Death bonus’ to the same degree as men, and likely testament to the paucity of work opportunities in certain sectors (Humphries and Weisdorf, 2015). It has long been recognised that structural changes in brewing and textiles sectors after the middle of the fourteenth century led to women losing their control over these activities to men (Bennett, 1996), while chronological parallels might be sought in female participation in medical care – seemingly very high in the high Middle Ages but becoming increasingly restricted with formal regulations and institutional protectionism (Green, 1989). Furthermore, while it is often suggested that harvest failures often brought on food crises and, sometimes, excess mortality connected to various diseases,

less work has focused on the production problems that occurred in the direct aftermath of epidemics.

Aggregate contraction of economies and production problems were further exacerbated by institutional restrictions to distribution. City-wide restrictions were still quite rare in the medieval period, with systematic quarantines only occurring quite some time after the Black Death (as at Ragusa in 1377: Blažina-Tomić and Blažina, 2015), and where miasmatic principles in much of Europe still tended to see disease more as a product of internal ‘corruptions’ than external contagionist threats (Agresta, 2020). Nevertheless, more localised isolation strategies and enforced cessation of trading clearly hurt individuals, and some demographics and sectors more than others. Access to ‘space’ within cities during epidemics was highly unequal and restricted to those of better repute (Weeda, 2022). Recent work has shown the close interrelationship between disease-related restrictions on trade and reputational fears of defamation for individuals selling goods – and fears that were often heightened for poor women, for example (Coomans, 2021).

4 Direct economic costs of disease

Finally, we should also consider all the ‘direct’ economic costs of medieval disease outbreaks. While it is often stated that epidemics such as plague killed people but kept capital intact, this is not strictly true. Not only were diseases often causally connected to surges in military activity and thus a destruction of homes, land, water sources, and infrastructure, but epidemics brought with them rules and impositions such as the slaughtering of animals or the burning or disposal of ‘infected’ goods (Curtis, 2020). And it was not just sick and infected humans that created economic costs. Diseases such as sheep scab, murrains, anthrax, and bovine plagues led to the destitution of pastoral farmers (or rather leaving some destitute, while others survived), and sometimes created realignments in power between producers (of wool, for example) and merchants providing capital to replenish stocks (Slavin, 2020). Meanwhile, most epidemic-related infringements were imposed as monetary fines, creating further financial difficulties (Coomans, 2021; Geltner, 2019), even if they were not always rigorously enforced (Curtis, 2020). Sudden deaths of multiple members of a household created necessities for burials and funerals – financially burdensome to the poorest in society – and not only were the infected confined to their households for weeks and sometimes months at a time, disrupting trade and agriculture, but these same people often had to pay personnel for care services or the delivery of food and other products (Curtis, 2021b). These costs were sometimes substantial. Accordingly, many of these points are in merit of further consideration given the frequent assertion of the ‘egalitarian’ redistributive qualities of the Black Death and other epidemic outbreaks in the Middle Ages.

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