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Managing Epidemics and Learning under Crisis: Institutional Responses and Educational Disruption in Brindisi (1913–1919)

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Abstract

This paper examines the management of the 1913 measles outbreak in Brindisi (Southern Italy), focusing on how a public health emergency disrupted schooling and triggered local institutional responses. Using a historical case study based on unpublished archival sources from the Municipal Historical Archive of Brindisi (correspondence between the Mayor, the medical officer and school authorities, municipal ordinances, circulars and police reports), the research reconstructs containment measures, the progressive closure of public and private schools, and the difficulties of enforcing prophylactic regulations. The analysis highlights a fragmented crisis governance system shaped by bureaucratic delays, uneven enforcement, and tensions between public health protection and the economic needs of teachers and households. The epidemic is interpreted as a disruptive event that forced local institutions into forms of learning under crisis, characterised by trial-and-error decision-making and gradual adjustments in administrative practices.

Keywords: Epidemic management, Institutional learning, Educational disruption, Quality of education, Historical case study

INTRODUCTION

Epidemics provide a valuable lens through which to examine how institutions operate under conditions of urgency and uncertainty. Public health crises, particularly those involving highly contagious infectious diseases, often expose the strengths and weaknesses of administrative coordination, decision-making processes, and regulatory enforcement. Measles, in particular, has historically represented one of the most contagious viral diseases affecting human populations[1], transmitted primarily through respiratory droplets and capable of rapid spread in contexts characterised by close social interaction, especially among children[2].

[1]Cf. Navaratnarajah CK, Leonard VH, Cattaneo R. *Measles virus glycoprotein complex assembly, receptor attachment, and cell entry.* Curr Top Microbiol Immunol. 2009
[2]Cf. Sarah Aref, Katharine Bailey and Adele Fielding. *Review Measles to the Rescue: A Review of Oncolytic Measles Virus.* Viruses 2016.

In such circumstances, schools play an ambivalent role: they are essential socialization and educational sites, yet they may also act as powerful multipliers of contagion, since the aggregation of children creates favourable conditions for the transmission of infectious diseases. As epidemiological research has shown, measles spreads efficiently through airborne transmission and tends to affect children particularly severely, especially in contexts characterised by poor sanitary conditions and limited preventive measures[3].

Managing a public health emergency therefore becomes, inevitably, the management of educational disruption and of its social consequences: the suspension of teaching activities, the family life reorganisation, and conflicts between regulatory norms and economic survival. Historically, before the widespread availability of vaccination, measles represented a major cause of childhood mortality worldwide, with millions of deaths recorded annually prior to the introduction of immunisation programmes[4].

AIM OF THE WORK

This paper offers a case study of the "morbillous infection" (measles) that affected Brindisi between January and March 1913, within an urban context in Southern Italy characterised by fragile health conditions among children, inadequate hygiene, and the widespread presence of private and informal educational settings (childcare centres, after-school classes, home-based instruction and needlework schools). The outbreak functioned as a disruptive event that placed local administrative arrangements under pressure, revealing structural weaknesses and inconsistencies during the epidemics management.

At present, no specific historical studies appear to have examined the management of the 1913 measles outbreak in Brindisi, or the concrete measures adopted by the local administration, particularly in relation to the school system. The absence of dedicated studies on this local epidemic context gives this research a strongly original character, as it represents the first systematic attempt to reconstruct both the epidemiological situation, and the institutional responses developed at the municipal level.

The main objective of this paper is therefore to reconstruct the local evolution of the epidemic and to analyse how educational authorities and municipal institutions of Brindisi responded to the health emergency, particularly through school closures, prophylactic measures, and regulatory enforcement.

The analysis is guided by two research questions: (1) how local governance of Brindisi reacted against the measles epidemics to guarantee the public health and the quality of education? (2) what tensions emerged in the enforcement of prophylactic regulations, particularly regarding private schools and the economic impact on female teachers and households? The paper argues that, despite a national regulatory framework (notably Article 118 of the Royal Decree of 6 February 1908, no. 150), the effectiveness of measures depended on bureaucratic speed, consistent enforcement, and social compliance, often undermined by income-related constraints.

The 1913 measles outbreak is interpreted as a disruption that forced institutions into processes of learning under crisis: an unplanned process of administrative adjustment shaped by trial-and-error decision-making and gradual institutional adaptation. From this perspective, the historical

[3]Cf. Yanagi Y, Takeda M, Ohno S. *Measles virus: cellular receptors, tropism and pathogenesis*. 2006 Oct.
[4]Cf. Bellini WJ), Rota PA. *Biological feasibility of measles eradication*. Virus Res. 2011 Dec.

reconstruction offers insights into the relationships between health emergencies, educational disruption, and institutional learning in complex governance contexts.

METHODOLOGY OF THE WORK

This study is based on previously unexplored municipal archival sources preserved in the Municipal Historical Archive of Brindisi, including sanitary notifications, correspondence between the medical officer and the mayor, communications with school authorities, closure ordinances, circulars addressed to physicians, municipal police reports, and documentation relating to private schools. These materials make it possible to reconstruct the decision-making chain leading from the reporting of a case to isolation measures and school exclusion, while also highlighting procedural delays and difficulties in coordinating multiple institutional actors.

By bringing to light previously unused archival documentation, this research contributes original empirical evidence to the historiography of public health and education, while also offering a historically grounded perspective on crisis management and institutional responses to epidemic threats.

RESULTS AND DISCUSSION

Socio-health context and the onset of the crisis

Early twentieth-century Italy was a country moving—slowly yet steadily—towards modernity, despite the many challenges faced by the governments of unified Italy (unification having been achieved on 17 March 1861), which had to bring together a nation deeply divided in numerous respects: language, traditions, systems of measurement, and political institutions. In 1913, the winds of war had not yet swept through *belle époque* Europe; nonetheless, daily hardships remained widespread, particularly in a country still marked by sharp economic disparities between an increasingly industrialised North and a predominantly agrarian South. Children, owing to their physical vulnerability, were especially exposed to seasonal and exanthematous diseases, which could easily spread and turn into true epidemics, particularly when youngsters were malnourished and living in deplorable sanitary conditions.

Shortly after the celebrations marking the arrival of 1913, the Mayor of Brindisi received, on 2 January, a letter from the Municipal Medical Officer which opened bluntly as follows: “I inform Your Worship that a report has been received that the child Mario Puteo, son of Paolo, is suffering from measles. As his father is a schoolteacher, it is necessary that he be immediately removed [from school]”[5]; This document clearly illustrates how compliance with prophylactic regulations—then as now—was considered the most effective means of preventing the spread of contagious disease. This was established by Article 118 of the Royal Decree of 6 February 1908, no. 150, which stated: “Persons recognised as suffering from contagious or transmissible diseases must be immediately removed from school, as must teachers, pupils, and attendants living with persons affected by transmissible diseases. The Mayor, upon receiving notification of the illness, shall take the measures within his competence and shall inform the Royal School Inspector.” At first glance, such precautions might appear excessive for what might be perceived as a ‘minor’ measles infection; however, deaths were far from rare at the time, especially given that children often lacked robust physical constitutions and that infections spread rapidly, also

[5]State Archive of Brindisi [Archivio di Stato di Brindisi] (hereafter ASB), Historical Archive of the Municipality of Brindisi [Archivio Storico del Comune di Brindisi] (hereafter ASCB), sez. VI, cat. 4, cl. 5, b. 6, fasc. 31.

owing to poor hygienic conditions. Only a few days after the Medical Officer's notification, the Mayor addressed the School Inspector, specifying: "Following the death from measles of the child Cosimo Corsa, residing in Via Cittadella, it is necessary to order that his brothers Nicola and Fortunato, who attend those schools, be temporarily removed from school; likewise, it is advisable that the teacher Paolo Puteo, whose child Mario is ill with measles, be temporarily removed from school"[6]. Infections spread at an alarming pace, to the extent that on 6 January 1913 the Medical Officer wrote: "the measles epidemic is spreading further throughout the city. Several cases are occurring among youths attending school"[7]. Children's poor health was not the sole factor behind the rapid spread of the disease. Adults often underestimated its danger, whether out of imprudence or necessity. Those affected by measles—and members of their households—were obliged to refrain from work and to remain at home for at least ten days. As one report stated: "I have personally ascertained that the child Annita Nicolardi, residing at 62 Via Lata, is suffering from measles. She has remained isolated at home. The child's mother, Mrs Emilia Francioso, widow Nicolardi, is a teacher in the 1st year boys' class. Under Article 118 of the Royal Decree of 6 February 1908 she must be immediately removed from school. I kindly request that Your Worship inform the Royal School Inspector. I have notified Mrs Francioso of this measure, also forbidding her from conducting any private teaching. It is necessary that such teachers do not return to class before ten days have elapsed from the date on which a medical certificate attests that the relevant provisions have been complied with"[8]. It is obvious that an inability to work made daily life extremely difficult, since ten days of isolation meant ten days without wages. This helps explain why the official requested greater diligence from physicians in reporting new cases: "I kindly ask Your Worship to inform the doctors practising in Brindisi that it is necessary for them to be diligent in their notifications, including all necessary information: whether the patient attends school; whether family members living with the patient attend school or are teachers"[9]. Yet within a short time, the epidemic spread uncontrollably: "I inform Your Worship that the measles epidemic is spreading through the city with an intensity greater than can be inferred from the notifications provided by the doctors. It is true that many cases are not observed by health professionals, but it is unfortunately also true that notifications are often easily neglected"[10]. Moreover, before the child and the household could be confined at home, there were bureaucratic delays that hindered rapid management of such a delicate situation through cumbersome, and certainly questionable, procedures. Once the attending physician had ascertained the presence of the disease, he had to inform the Medical Officer, who in turn informed the Mayor, who then had the responsibility to notify the School Director. Inevitably, precious time was lost. Concern gave way inexorably to anxiety and panic, to the extent that the Mayor asked the relevant authorities whether, given the frequent measles infections, it might be appropriate to close the schools"[11].

Private Schools and Prophylaxis: Administrative Inconsistencies and the Worsening of the Epidemic

This solution proved only partially effective, especially considering that alongside public schools there were also numerous "private schools", which took diverse forms: childcare centres, needlework and domestic skills schools for girls, and after-school classes. These institutions were widespread and

[6] *Ibidem*.
[7] *Ibidem*.
[8] *Ibidem*, closure of elementary schools, letter of 5 January 1913.
[9] *Ibidem*, closure of elementary schools, letter of 6 January 1913.
[10] *Ibidem*, closure of elementary schools, letter of 15 January 1913.
[11] *Ibidem*, closure of elementary schools, letter of 6 February 1913.

enrolled a substantial number of pupils. How did the local authorities respond to them? The documents preserved in the State Archive of Brindisi suggest that the administrators' approach was, at the very least, inconsistent. Initially, rather than requiring the infected pupil and their household to remain at home—as was the case for public schooling—the authorities opted to close individual private schools whenever a clear outbreak was identified, with no fixed date for reopening. As the Medical Officer noted in one letter: "At 7 Via Tarantafilo there is a private school run by one Lucia Caracciolo. Three cases of measles have occurred there. For reasons of prophylaxis, I request that Your Worship order the closure of that school"[12], In fact, the Mayor issued closure ordinances each time the official reported a new case of infection, warning that any non-compliant private teacher would be "reported to the judicial authorities under Article 218 of the public health laws.

These measures, however, proved ineffective: the number of patients rose significantly and several deaths were recorded. A report stated: "We feel it our duty to inform Your Worship that in these secondary schools the young pupil Rosina De Luca, student of Technical Class 1B, is suffering from measles, and that in the family of the pupil Vito Doscioli, of Technical Class 2G, a two-year-old sister has died"[13], Likewise: "From the weekly bulletin on causes of death I learn that: on the 3rd of this month the child Gennarina Zuccaro, aged 21 months, died of measles (…) on the 5th Fortunata Doscioli, aged 2, died of measles (…) on the 9th Rosa Ferrucci, aged 20 months, died of measles (…) For these three cases no notification has been received by this office"[14]; The negligence of physicians in reporting cases thus persisted, to the extent that the Municipality had to issue a circular to all local doctors: "The Medical Officer has noted that doctors treating children suffering from measles fail to report such cases to him. Therefore, I inform you that as from today the Medical Officer will take measures in accordance with the law against those doctors who fail to fulfil the obligation to notify infectious diseases"[15].

Only at a later stage did the Medical Officer propose the closure of all private schools in the municipality: "I have observed that one of the main causes of the spread [of the disease] is the gathering of many children in private schools. Such schools are similar to small infant institutions; they are attended mostly by children under six years of age, who have therefore rarely acquired the immunity conferred by the said exanthematous disease (…) Considering that many measles cases escape notification for various reasons, and that these private infant schools constitute the principal route of dissemination of the epidemic, I propose to Your Worship the closure of all private kindergartens and nursery schools, by municipal ordinance, for reasons of hygiene"[16]; The same proposal was later advanced for public schools: "Although the measles infection is developing while affecting only a small number of pupils attending school, nevertheless the gathering of pupils is always a cause of easy dissemination of common childhood exanthems, and since the number of those affected by measles continues to increase, I propose to Your Worship the closure of schools until improved hygienic conditions recommend their reopening"[17]. The Mayor's response differed in the two cases. For public schools, the Municipality of Brindisi promptly issued an ordinance, dated 7 February 1913, ordering immediate closure: "With regard to the report of the Medical Officer of today's date, in which it is deemed necessary to close elementary schools, given the present measles infection and the fact that the

[12] *Ibidem*, closure of elementary schools, letter of 28 January 1913.
[13] *Ibidem*, closure of elementary schools, letter of 10 February 1913.
[14] *Ibidem*, closure of elementary schools, letter of 10 February 1913.
[15] *Ibidem*, closure of elementary schools, circular of 22 February 1913.
[16] *Ibidem*, closure of private schools, letter of 5 February 1913.
[17] *Ibidem*, closure of elementary schools, letter of 7 February 1913.

gathering of pupils causes easy dissemination of this disease; considering that measles has assumed a worrying diffusion for public health […] (the Mayor) HEREBY ORDERS that the aforesaid schools shall remain closed until improved hygienic conditions recommend their reopening"[18], By contrast, the response regarding private schools was more hesitant and delaying. On the same day, the Mayor wrote to the Municipal Police Office requesting lengthy and rather meticulous investigations: "Given the present measles infection, for the health measures that must be adopted it is necessary to have a list of all private schools existing in this city, indicating the teacher's name and surname and the premises used as a school. You are also requested to inform me of the level of education of each individual teacher"[19]. In this way, the authorities sought to gain time before issuing an unpopular ordinance.

Between Ordinances and Survival: Contesting Closures and the Problem of Enforcement

A "List of private schools existing in the city" was therefore compiled, from which we learn that the term *private schools* encompassed any activity or arrangement involving the gathering of minors, regardless of the type of instruction provided. These "schools" could take care of very young children—thus employing even illiterate childminders—offer lessons in manual and domestic skills, or provide instruction preparing pupils for elementary or secondary education. Based on this list, three days after requesting it, on 10 February 1913, and presumably driven by the rapid deterioration of the situation, the Mayor issued individual closure ordinances for each private school included in the register[20].

As might have been expected, the closure of schools generated widespread dissatisfaction in both the public and the private sectors. With regard to public schools, only ten days after the municipal closure ordinance a formal question was already raised in the Municipal Council: "The undersigned requests to question the administration, and in particular the Councillor for Public Education, to ascertain whether, given the improved conditions of public health, it is not time to reopen the elementary schools, or at least the upper elementary classes, attended by youths aged nine and above"[21]. Moreover, letters of protest were sent by teachers working in private schools, who suddenly found themselves unable to earn a living in a context that offered no form of assistance to those in need. Among these documents, a dramatic letter—originally written in poor Italian and therefore reproduced here in a corrected version to facilitate translation and reading—stands out as an example of the hardship faced by both public and private teachers. In a courageous tone, the young teacher denounced the many colleagues who failed to comply with the restrictions: "Esteemed Mr Mayor, I realise that not everyone listens to your voice, yet justice ought to apply to all, men and women alike. I therefore ask: why do so many 'home-based' teachers continue to take in girls and hold classes? If the ordinance states that no girls may be taken in until further order or notice, how can this be allowed? I am a poor orphan, without parents and without anyone in the world; I have rent to pay, amounting to around ten lire—how am I supposed to survive? For this reason, I respectfully appeal to Your Worship, asking that you continue to be kind to all, as you have always been, but also just, because it grieves me deeply to see that so many do not comply with your order. If I must do nothing, then neither should Mr Gentiletti, the Manganoni family, Ms Concettina in Via Mattonelli, nor Ms Chiarina 'the woman from Bari', nor Concettina behind the sacristy of the Annunziata, who holds evening classes, and so many others. I hope to be heard, as I myself have

[18]*Ibidem*, closure of elementary schools, ordinance of 7 February 1913.
[19]*Ibidem*, closure of private schools, letter of 7 February 1913.
[20]A total of 74 closure ordinances were found in the archival collections consulted.
[21]*Ibidem*, closure of elementary schools, petition of 18 February 1913.

respected your order. With esteem, I thank you and hope that you will grant my request, and send police officers to make my colleagues comply with your order."[22]

His letter did not leave the Mayor indifferent. Indeed, a few days later[23] he wrote: "Since the closure of all primary and popular schools has been ordered, all those who profit from private schooling must comply with the ordinance. Therefore, as it has been reported to me by letter that certain persons […] hold classes in the evening, I request your office verify the matter." Yet this communication did not have a sufficiently deterrent effect. A few days later, the Mayor had to write again to the School Directorate, stating: "I am now informed that elementary school teachers are providing private teaching at home", and requesting that "in order to avoid coercive measures and reporting the conduct to the magistrate, you are asked to warn all teachers that they are forbidden to take children from other families into their homes for that purpose"[24].

This was followed by disinfection operations on the premises.[25] Only one month later, on 26 March 1913, with the arrival of spring and milder weather, was the measles outbreak declared contained and the Mayor was able to reopen the schools through an ordinance: "My ordinances of 7 February 1913 and those issued subsequently are hereby revoked, and the reopening of public and private elementary schools is scheduled for Thursday the 27th of this month"[26].

This episode shows that measles cannot be dismissed as a harmless childhood illness: when control measures falter, the consequences may become severe and deeply painful for the community.

CONCLUSION AND FUTURE PERSPECTIVE

The measles outbreak affecting Brindisi between January and March 1913 demonstrated how a public health crisis could generate significant social and administrative disruption, affecting not only health conditions but also the educational system functioning and the economic stability of families and teachers. The examined sources highlighted the central role of schools as both potential spaces of contagion and essential social institutions whose closure produced important social consequences.

The analysis revealed a fragmented governance structure, in which bureaucratic delays, coordination difficulties, and uneven enforcement reduced the effectiveness of containment measures. In particular, the case showed how crisis management cannot rely solely on formal regulations: where economic hardship is not considered, compliance becomes fragile and emergency policies risk become less effective.

This historical case also highlighted two important lessons for future crisis management. First, prevention remains the most effective strategy: timely interventions, coordinated governance, and clear communication are essential to limiting the escalation of health emergencies. Second, crises must also be addressed as social phenomena. When individuals are left alone to face the economic consequences

[22] *Ibidem,* closure of private schools, letter of 14 February 1913.
[23] *Ibidem,* closure of private schools, letter of 17 February 1913.
[24] *Ibidem*, closure of private schools, letter of 26 February 1913.
[25] *Ibidem, c*losure of private schools, letter of 22 February 1913. The Medical Officer requested that the school walls be whitewashed and that desks, furnishings, and latrines be disinfected.
[26] *Ibidem,* closure of private schools, Mayor's ordinance, 26 March 1913.

of restrictive measures, they may be forced to bypass regulations, unintentionally worsening the crisis itself.

This study contributed to understand how institutions learnt and adapted during health emergencies. Understanding how local administrations reacted to past crises can help policymakers and educational leaders develop more resilient systems capable not only of responding to emergencies, but also of anticipating and mitigating their effects to guarantee the quality of education.

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*Ibidem, c*losure of private schools, letter of 22 February 1913.

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