
Original Article

Legal aspects of public health: How law frames communicable disease control in Greece

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Abstract We reviewed Greek law (legislation, historic Royal Decrees, and modern Presidential ones, 1833–2010) pertinent to control of communicable diseases and compared this body of Greek law with the revised International Health Regulations. Greece authorizes and regulates communicable disease control commensurate with public health risks, and integrates the principles of equality, objectivity, and respect for human rights. Despite strength at the level of principles, Greek law lacks coherence, clarity, and systematization. An inadequate body of regulations means legislation falls short of adequate implementing authority and guidelines; public health authorities often cannot find or understand the laws, nor are they certain about allocation of jurisdictional authority. We identified areas for improvement.

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Introduction

To prevent spread of communicable diseases that pose significant threats, public health interventions remain crucial, as effective alternative means for protecting human health are few.^{1–3} Traditional interventions, such as movement restrictions and clinical evaluation of those exposed, have recently been used in response to epidemics – Severe Acute Respiratory Syndrome and pandemic influenza. These interventions are intrusive, may clash with individual rights, have social and economic consequences,⁴ and are often applied in emergencies under media and political pressure⁵ – even though none has been proven effective conclusively.⁶



To support effective interventions without encouraging disproportionate or discriminatory restrictions, public health authorities need clear authority and limits.^{7,8} Globalization of disease highlights the importance of balance; countries benefit from transnational cooperation based on commonly accepted rules.⁹ The World Health Organization (WHO) revised International Health Regulations (IHR), adopted and enacted them in 2005 (known as ‘IHR2005’) and 2007, respectively.

Greece introduced legal provisions for containment of communicable diseases in the nineteenth and early twentieth centuries, but only implemented these, and incompletely so, in the context of wars in the Balkan region and political instability.¹⁰ After the mid-twentieth century, epidemic disease declined, and so did capacity and expertise in the field. Legal and regulatory action shifted focus to regulation of health care in Greece as it did elsewhere in the western world. Regulations appeared sporadically, notably in response to tuberculosis and sexually transmitted diseases. Only in 2003, in anticipation of the 2004 Athens Olympic Games, did the government seriously attempt to regain capacity to control infectious diseases effectively. This reform effort did not include a well-conceptualized revision of preexisting statutes and public health officers pointed to shortcomings, lack of clarity about jurisdictional boundaries, lines of command, and procedural requirements.¹¹

To facilitate achievement of a more effective legal framework for controlling communicable diseases, we conducted a qualitative review of pertinent Greek legislation to map the legal terrain, evaluate the adequacy of the laws in light of the new international legal norms, and to identify weaknesses to address in content or structure.

Methods

From November 2009 to May 2010 we conducted a systematic search of communicable disease control statutes published in the National Legal Gazette (*Efimeris tis Kivernisis*), from the founding of the modern Greek state (1833). We surveyed printed health law archives (1833–1939) and the electronic database (after 1940) of the National Printing Office (*Ethniko Typografeio*), and the online Law Code Database (*Kodikas Nomothesias*) of the Ministry of Interior using the key words ‘communicable or infectious diseases’ and ‘public health’. We tracked amendments to legal texts through the Legal Database



of the Athens Bar Association. A more complete review would also encompass administrative regulations, governmental policy statements, and other regulating instruments. We reviewed legislation conferring powers to implement restrictive measures and mandatory clinical interventions. Because coding and analysis of Greek environmental public health legislation has already been published we excluded environmental laws (for vector control, water sanitation and so on).^{12,13}

Results

Overview

We identified 202 laws and decrees spanning 177 years (1833–2010). Since the establishment of Greece's Parliamentary Republic in Greece in 1975, laws voted by the Parliament and Presidential Decrees signed by the President of the Republic, are those with legal force. Older forms of law such as Royal Decrees also remain enforceable and form the basis of more recent regulatory documents. Numerous laws fell into disuse for decades, and have neither been reformed nor revoked since, whereas others have never been implemented. The legal validity of these is questionable.¹⁴ Medical advances and epidemiologic changes have rendered several laws obsolete, such as a requirement for annual radiography screening of public employees for tuberculosis control purposes (1960) (Table 1).

Conceptual grounding

Punitive approaches – including the death penalty for having failed to report cases of infectious disease resulting in an epidemic (1845) – gradually became less prevalent as focus shifted to building public health infrastructure (1914). New concepts emerged, including education of the public on infection prevention (1915), obligation for officials to conform to regulatory norms (1940), and to consider communicability criteria (1955). Mandatory treatment and confinement as the first line of containment reappeared in laws on sexually transmitted diseases (1939, 1960) and leprosy (1969), but eventually the government revoked these (1981). HIV/AIDS specific statutes strengthened preexisting confidentiality provisions (1986). Broader personal data protection law (1997) included strict exceptions for

Table 1: Milestones of Greek CD control legislation in context

	<i>Epidemiologic and historical context</i>	<i>Developments in Greek CD control law</i>	<i>International and EU developments</i>
Nineteenth century	1833: Modern Greek State established 1828, 1837: Plague epidemics 1854: Cholera epidemic (Athens) 1897: Greek-Turkish war 1912–1914: Balkan wars 1917–1918: 1st world war (Greek involvement) 1918: H1N1 pandemic (Spanish flu) 1919–1921: Typhus epidemic 1923: Lausanne Treaty: 1.5 million incoming refugees 1924: Typhus and malaria in refugee camps in North. Greece, 20% dead 1927–1928: Dengue epidemic, 1.3 million cases 1932: Sovereign default, debt crisis 1933: TB > 150,000 cases 1940–1944: 2nd world war (Greek involvement) 1946–1949: Civil war 1951: last smallpox case in Greece 1981: HIV/AIDS emergence 1996: last poliomyelitis case in Greece	1833: Sanitary Police, prefectural PH doctors 1834: National Sanitary Board 1835: Mandatory vaccination (smallpox) 1836: Mandatory CD notification 1911: Isolation, quarantine: cholera, smallpox 1914, 1921, 1928: CD control infrastructure (not implemented) 1915: Mandatory clinical evaluation, travel restrictions (plague) 1917: Ministry of Health, PH dpt established 1929: National School of PH, supported by League of Nations Health Organization 1938: Peripheral CD control boards 1950: Notifiable CD list, mass vaccination, countermeasure distribution, public education 1955: Communicability criteria 1960: Mandatory mass clinical evaluation (TB) 1981: Science-based criteria for mandatory STD treatment, confidentiality requirements 1986: HIV notification, strict confidentiality 1992: HCDC established	1908: Establishment of International Health Office (Paris) 1922: Establishment of League of Nations' Health Committee & Health Section 1948: Establishment of WHO 1951: International Sanitary Regulations <ul style="list-style-type: none"> CD notification, isolation & quarantine, mainly regarding aircraft & ship clearance 1969: IHR <ul style="list-style-type: none"> Prevention of transnational CD spread through preset measures (cholera, plague, yellow fever) 1998: EU surveillance & CD control network



Twenty-first century	<p>2003: SARS pandemic (no cases in Greece)</p> <p>2004: Athens Olympic Games</p> <p>2005: Avian influenza H₅N₁ (no human cases in Greece)</p> <p>2009: Pandemic influenza H₁N₁</p> <p>Aug 2010: West Nile virus encephalitis epidemic in North. Greece</p>	<p>2003, 2005: CD control law reform (partly implemented), r-IHR requirements integrated</p>	<p>2004: ECDC established. Mandate for surveillance, risk assessment and response, communication, scientific guidance</p> <p>2007: r-IHR enacted. Duty of WHO states for surveillance and response capacity & prevention of transnational CD spread with respect for human rights</p>
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ECDC, European Centre for Disease Control & Prevention; EU, European Union; HCDC, Hellenic Centre for Disease Control & Prevention; r-IHR, revised International Health regulations; PH, Public Health; SARS, Severe Acute Respiratory Syndrome; STD, sexually transmitted diseases; TB, tuberculosis; WHO, World Health Organization.

communicable disease surveillance and public health threats. Patients' rights laws fortified protection of human rights (1998) as incorporated in public health law (2003, 2005). Current laws are restrictive only in instances involving significant health risks and when supported by scientific evidence; and only when restrictions are appropriate to and commensurate with the nature and magnitude of the risk. That is, authorities must apply the least restrictive effective measures. When restrictions expire, they may be renewed only if supported by scientific review. Procedural provisions protect against arbitrary or unjustified deprivation of liberties.

Regulation of Communicable Disease Control Infrastructure

Central level

The Sanitary Police was the first state public health authority established under the Ministry of Interior (1833); the authority of state police extended to epidemiologic investigation and restrictive measure for more than another century for typhus and plague outbreaks (1915) and for containing epidemics (1921). Greece has frequently restructured public health services following changes in state administrative structures. Currently, central authority and responsibility for compliance with WHO and European Union (EU) policies lie with the Ministry of Health (2000). Greece has expanded Ministry services (2003, 2005, 2007) with establishment of two more administrative levels, and an emergency response service to meet IHR (2005) and European 'early response and notification' requirements. The Hellenic Centre for Disease Control and Prevention (HCDCP), the central public health agency, initially founded in response to emergence of HIV-AIDS, broadened its surveillance and intervention functions, along with adding counselling and emergency services (1992, 1998, 2001, 2003). Delineation of public health powers and responsibilities among authorities has not been clarified.

Local level

Since the nineteenth century, prefectural public health authorities that report to the central government have been in charge of infection



control. After regulatory changes (1997, 2005, 2007, 2009), in 2011 Greece will dissolve the prefectural public health role following a major reorganization to improve efficacy and reduce contracting expenses in the public sector. Regional and municipal administrations, neither of which has had long-standing public health responsibilities, will take up the prefectural ones.

Laboratory capacity

Recent laws (1997, 2000, 2003, 2005) promoted Greek communicable disease control laboratories (developed from 1929 along with designating reference centers) and reorganization of administrative structures. Lack of funding has meant that laboratory capacity expansions anticipated in the newer laws remain incomplete.¹⁵ Human resource upgrades (1994, 1997, 2001) followed public health training instituted in 1929, but administrators have not implemented 2005 recruitment and training regulations for public health professionals.

Regulation of interventions

Greece added to its initial mandatory communicable disease notification provisions (1836), disease-specific legislation for cholera, smallpox (1911), and plague (1915). Greece enacted, but never implemented, broader laws (1921, 1928). The country partially applied a comprehensive law on communicable disease notification and surveillance (1950). With increasing numbers of 'emerging diseases' requiring notification, changes and inconsistencies about which authority should receive which report were noted. Recent public health law (2003, 2005) required regular updating of the notifiable disease list. As relevant regulations have not been issued, the outdated 1950 list remains legally valid, although a provisional list drafted by the HCDCP in 2004 is now in use. This list falls short of including imported infectious diseases notifiable on the basis of previous legislation (such as leprosy, 1981). These inconsistencies generate confusion and barriers for surveillance of imported communicable diseases that are particularly important given today's influx of immigrants and refugees.

Authorities may mandate restrictive interventions by ministerial decree (2003) for potentially severe infectious diseases carrying the risk of community spread. Decrees currently in force cover mandatory



clinical evaluation, vaccination and treatment, and restriction of movement. It is not clear whether authority for closing of public places conferred upon public health authorities through nineteenth and early-twentieth century legislation remains legally valid. Nor is it clear in which cases local authorities should obtain approval from regional or state authorities before instituting control measures (1950, 2003).

Interjurisdictional cooperation

Strategic national communicable disease control boards from the nineteenth century have only sporadically assembled as working bodies. The interministerial public health board as well as the Central and regional public health coordinating bodies introduced by law in 2003, were dissolved in 2005, a casualty of never enacted restructuring amendments (2005). Under administrative regulations Greece is assembling coordinating bodies in response to specific diseases such as pandemic influenza H1N1(2009) and West Nile virus epidemic (2010).

Accessibility of legal content

Online legal content is generally indexed in chronological order or by source of legislation (Parliament or other), rather than by topic. In the limited sources of codified law, communicable disease control provisions are indexed within broader health legislation. Amendments can be tracked through subscriber databases generally not accessible to public health workplaces where staff members rely largely on printed legal materials.¹⁶

Discussion

In addition to laws allocating authority and responsibilities for implementation of control strategies, good practice also requires leadership, training, and political commitment.¹⁷ An important international legal initiative (the revised IHR or r-IHR) emphasizes the need for states to maintain capacity to prevent and control infectious diseases through science-based, transparent procedures, carried out with consideration for human rights.^{18,19} European public health legislation falls within European Union 'complementary action',²⁰ as EU legislative bodies have ruled against requiring alignment



of national legislation.²¹ However, the EU has taken regulatory action (1998, 2000, 2004, 2008, 2009) that raised surveillance and response obligations for member states.²² Several countries seized this opportunity to radically reorganize their communicable disease control frameworks, including Germany (2000), and the Netherlands (2002, 2005, 2008).²³

Greece has re-enacted regulations strengthening surveillance and response capacity. Consistent with IHR (2005), Greek reform re-introduced the communitarian foundations of control strategies, mandating restrictions of individual liberties when necessary for protecting public health. Disease control is consistently treated as public health protection and crafted to avoid undue impact on individuals. Thus Greek law aligns with public health provisions in the revised IHR, and in laws of France, Sweden, and other countries.^{24–26} Disease control is not treated as a national security issue that would be reminiscent of the older policing approach.²⁷ Thus, Greek law embodies current understanding of effective public health practice with emphasis on public education and transparent procedures, not on punitive, coercive or stigmatizing ones that may drive epidemics ‘underground’.^{28,29}

Along with these amendments to align Greek law conceptually with EU and international legislation, the Ministry of Health drafted a national public health plan (2008) incorporating policies for meeting EU and IHR (2005) disease control objectives. However, Greek implementation has lagged; the pressing economic situation raises questions about whether the country will fully meet its obligations by the IHR (2005) deadline in 2012. Major legislative weaknesses stem from failing to follow up core infectious disease control law with supplementary legal and administrative regulations needed to guide implementation. Inconsistent and uncoordinated law making contributed to incomplete establishment of structures and procedures. Governmental change or emergence of new diseases exposed legal and administrative inadequacies, whereas consecutive reforms remade structures, policies, and procedures. Reforms have not thoughtfully integrated preexisting legislation, nor have obsolete or conflicting provisions regularly been removed. Thus, the existing body of pertinent law consists of fragmented requirements from numerous legal texts and different eras; these vary in content, applicability, and, possibly, legal validity.

Duplication of bureaucracy without delineation of powers, duties, and service roles across levels of government does not form strong infrastructure. Lapses in clarifying jurisdictional lines afflict operations (authority to apply restrictive measures), efficiency (use of funding and human resources), and public accountability.^{30–32} Uncertain criteria and procedures to guide interventions also plague effectiveness. Greece lacks a clear legal source for determining what constitutes a significant communicable disease risk. Explicit limitations for movement are set out only for people under justified suspicion for transmitting a communicable disease with potential for community spread.

No provision explicitly sets out power for public health authorities to undertake large-scale interventions to control highly infectious, rapidly spreading epidemics (such as group and area quarantine), blanket prescription orders, or alternative measures. Orders for these continues to rest on broader legislation for declared national emergencies. Whether legal procedural protections against restrictions are applicable before or after the execution of public health orders is not specified; nor does law stipulate whether such measures may be applied absent a declared emergency.

Although flexible statutes may best accommodate different patterns of disease spread, laws should define the circumstances under which powers can be exercised, especially authority to confine individuals who may pose threats of exposing others to infection. Inclusion of criteria, such as mode of transmission, length of communicability, and probability and severity of harm, still allow for the use of scientific discretion while requiring justification of decisions and establishing accountability for retaining public trust.³³ Statutory standards for assessing risk and establishing procedures may protect public health authorities from external intervention and promote decision making based on science rather than political or media pressure.³⁴

Conclusion

Cooperation between the public health and the legal sectors in amending deficiencies in communicable disease control laws could minimize confusion and improve outcomes.³⁵ Priorities for action include clearing legislation of duplicate and obsolete provisions, delineating functions, and specifying criteria for action. Consolidation of valid provisions into a unified and publicly available legal code to be



regularly updated in legal databases would help health professionals comprehend rules governing the exercise of their duties.³⁶ The United States initiated such a coordinated, comprehensive review of public health laws (2000) to replace antiquated or ineffective provisions with a standard approach reflecting advances in practice, and in constitutional and international law.³⁷ Empirically oriented research about how public health professionals respond to law, use regulatory techniques, and about how communicable disease control laws are perceived by the public may provide useful guidance for law reform.^{38,39}

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