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# Notification and Disease Control: Obligations of the Medical Practitioner Under Public Health Legislation

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## Abstract

Effective disease control requires a strong partnership between clinicians and public health personnel. The vital role medical practitioners play is reflected globally in the obligation under health legislation for medical practitioners to notify the public health authority of specific details of named patients suspected of having these diseases. While the principle is universal that the notification include the identity of the patient, to allow prompt and direct public health action, if needed, jurisdictions have varying approaches to many other aspects of notification: the actual list of notifiable conditions; who must notify and based on what degree of diagnostic certainty; in what timeframe and with what specific details; what information is to be provided to the case; and who bears responsibility for contact tracing. In addition, in some jurisdictions, medical practitioners have associated statutory obligations and powers, related to the examination of a patient directed for assessment by the public health authority, the furnishing of reports of such examinations, the role of the practitioner in ordering a patient into isolation, and responsibilities of medical practitioners in public health emergencies. Following a concise historical survey, finishing with the impact of the International Health Regulations 2005, this chapter systematically discusses the statutory obligations of medical practitioners for disease notification and related provisions, taking examples from English-language public health legislation used in Oceania, Europe, North America, Asia, and Africa.

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## Introduction

To prevent and control the spread of infectious diseases in the community, whether of human or environmental origin is the responsibility of government. However, government officials are unable to succeed in these aims unless they have the cooperation and goodwill of clinicians, in particular medical practitioners working in primary health care and hospital settings. Medical practitioners carry the responsibility of making a diagnosis, of reporting cases of disease, of managing the cases and family members; they often are needed to identify other close contacts and may be called upon to provide prophylactic chemotherapy or immunisations to these contacts as well. In some jurisdictions medical practitioners have additional responsibilities. This chapter provides an overview of the duties and obligations of medical practitioners under public health legislation by reference to English-language legislations from a selection of jurisdictions in Europe, North America, Australasia, Asia and Africa.

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## Public Health Legislation: What Is It?

Public health is the organized effort, largely but not solely by government, the aim of which is to prevent illness and promote the health of communities. Those aspects of the public health task which primarily relate to the prevention of exposure of humans to harmful agents in their surroundings are termed “health protection.” This meaning is now generally accepted and its use reduces reliance on the ambiguous term “public health” which is understood in differing countries and contexts to mean any or all of: publicly funded and managed hospitals; ambulatory care services for underserved populations; all government-funded primary health care services; population-based health promotion, education and screening programs; and health protection.

Health protection is largely a government responsibility and relies to a great extent on a regulatory framework, the purpose of which is to balance the needs of the community for protection and the rights of individuals and businesses to act in an unfettered manner, to the extent that these actions may pose a risk to the health of the public.

For government to be effective, in its health protection role, it relies strongly on clinicians, including medical practitioners. It is the responsibilities of the ordinary medical practitioner – that is, a medical practitioner in clinical practice who does not already have specific public health duties as a result of an administrative or statutory office – in relation to health protection, and the legislation underpinning it, that is the focus of this chapter.

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## A Brief History of Public Health or Health Protection Legislation

In many, if not all, countries where English is the usual or official language, public health legislation traces its origin to developments and debates in nineteenth

century Britain. It is acknowledged that many cultures, Western and Eastern, ancient and more recent, developed practices which were concerned with preventing the transmission of infection from one person to another. Some examples are the use of variolation to prevent cases of smallpox and the more recent invention of vaccination, using material from cowpox sores, for the same purpose; the isolation of lepers; distribution of clean drinking water through reticulated systems protected from sewage contamination; drainage of swamps to eliminate mosquitoes responsible for malaria transmission; and the enforcement of quarantine of vessels carrying diseased individuals.

Quarantine laws have a history dating back to the Venetian Republic of the fourteenth century [1], and in Britain, the first quarantine laws were passed in 1710 in response to anxieties about the plague in the Baltic states. Broad public health laws were a nineteenth century development. Chadwick's landmark exploration of the health impact of the industrial revolution, his 1842 *Report on the sanitary condition of the labouring population*, found that, particularly in overcrowded, poorer quarters of the industrial cities, the population was virtually living among rivers and lakes of sewage [2]. Despite the increasing application of the scientific method, by the early Victorian period, the germ theory had not yet gained acceptance and the generally understood cause of what we now know as infectious diseases was the emanation called "miasma" arising from the raw sewage and rotting material that contaminated much of the urban environment. Chadwick's report and a resurgence of the second cholera pandemic together forced the British parliament to pass the *Public Health Act* in 1848 "An act for promoting public health." This legislation required local government authorities to employ staff responsible for public health: the medical officers of health and inspectors of nuisances [3]. These two disciplines provided, respectively, the capacity to assess illness among members of their local communities, and the power to examine the living conditions of those communities and to remove the sources of "miasma" to which were attributed what we now know as infectious diseases.

The provisions for notification of infectious diseases of public health concern were delayed some decades. The *Infectious Disease (Notification) Act* 1889 allowed local authorities to declare certain infectious diseases notifiable; these powers were made mandatory first in London in 1891 and then throughout England and Wales in 1899. Notifications were to be made by the attending medical officer or by the head of the family or other responsible member of the household – the obligation on the head of the family to notify was dispensed with as recently as 1968 [4].

In the Australian context, while a quarantine law was enacted for the Colony of New South Wales in 1832, due to the threat of cholera, public health legislation in the more general sense awaited the passage in Britain of the 1848 act. In Australia, the young colony of Victoria was, in 1854, the first to pass an *Act for promoting the public health in populous places* which established administrative responsibilities and machinery for control of sewers, nuisances, and noxious trades, to seize adulterated foods and to control the spread of epidemic endemic or contagious diseases. These responsibilities were effected through a central board of health and

the obligation of each municipality to form a local board of health and to employ a medical officer and other officers to carry out the necessary duties.

The evolution of public health legislation in the Colony and later the State of Victoria (following the formation in 1901 of the Commonwealth of Australia, a federation of six states and a number of internal and external territories) was marked by concurrent gain and loss of provisions which the parliaments of the time considered to be essential responsibilities of government for the administration of health services and the protection of the public health. In the particular case of Victoria, between 1854 and the passage of its most recent statute, the *Public Health and Wellbeing Act 2008*, there were 20 separate versions of the *Public Health Act* or as it was known for most of this period, the *Health Act*, as well as numerous brief amending Acts. Some of the requirements, under earlier Acts, are no longer considered necessary, such as the “Infant life protection” powers introduced in 1883 to register and regulate people who nurse and feed infants under the age of 2 years, or the requirement for compulsory smallpox vaccination. Other provisions have been transferred to separate legislation, such as those related to food and drug safety, fire precautions, building of public hospitals and prohibition on growing of narcotic plants; quarantine powers were ceded to the Commonwealth of Australia upon its establishment.

The 2008 Act, and its attendant regulations, now focuses on the responsibilities of the state and local governments for health protection – in particular the appointment of officers and powers to make public health enquiries, specific concerns about the notification and control of infectious diseases, controlling the threat of *Legionella* infection from cooling towers, health risks from skin penetration operators, brothels and public swimming pools, mosquito and pest control and nuisances. Vaccination is no longer compulsory, but provisions of the Act are in place to encourage parents to have their children vaccinated and to allow schools and childcare services to collect information on the immunization status of each child.

What may be loosely termed public health efforts began in the Colony of New South Wales with the passage in 1867 of the *Municipalities Act* which created local authorities and gave them responsibility for the investigation and control of nuisances, in the words of the Act “any pool . . . so foul as to be a nuisance or injurious to health.” Disease control legislation really only came into being when the smallpox epidemic that attacked Sydney in 1881 led to the first specific disease control law, the *Infectious Diseases Supervision Act 1881*, which established the Board of Health and provided for notification and isolation of people with smallpox. In Sydney, a medical practitioner wrote, not long after, to the *British Medical Journal* with an anecdote which casts a little light on the tensions around disease control legislation and the role of medical practitioners. He stated that a fatal case of smallpox in the Sydney epidemic had failed to be reported by the patient’s physician, who was subsequently censured by the members of the local branch of the British Medical Association. He goes on to say that very soon after this meeting was publicized, the NSW parliament passed the *Infectious Diseases Supervision Act*, which made notification of smallpox compulsory by medical practitioners, at pain of 50 pounds [currency] penalty [5].

The first comprehensive legislation was enacted in 1896, with the following major advances: food and drug safety were included within its provisions; it clarified the role of local authorities in administration of the variety of public health legislation with the oversight by the Board of Health; gave powers to officers to enter and inspect premises which might pose a risk to the public health; and gave the Board the power to make its own regulations for the control of infectious diseases in the community. Perhaps belatedly – compared to the public health statutes of England and the colony of Victoria – the Act established the position within local authorities of the Medical Officer of Health and gave these officers also a measure of independence from parochial pressures and interests, by providing for their salaries to be paid by the central government and by requiring that copies of any reports, written by the Medical Officer of Health, be sent to the Board of Health.

Further consolidation was made in 1902 and the next major revision was made in 1991, almost 90 years later, to cope with more recently recognized risks to public health: controls on the sales and advertising of tobacco products; consolidation of powers to regulate air conditioning cooling towers and other sources of Legionnaires' disease; provisions to monitor and improve compliance with routine vaccination among children attending primary school and childcare services (without making vaccination compulsory); and a more comprehensive approach to the surveillance and control of communicable diseases, including powers to direct that those diagnosed with the most serious of these diseases, such as leprosy, tuberculosis, and HIV/AIDS, undergo assessment, treatment, or detention, if considered to be knowingly placing members of the public at risk. The 2010 Act has recently come into force; it has similar provisions but gives greater flexibility to respond to both established and ill-defined or emerging public health risks and to enforce control measures.

These Australian examples suggest that the scope of concerns of public health legislation may be broad and will, to a great extent, reflect the administrative apparatus which government has at its disposal to respond to these concerns. In many jurisdictions, a single statutory instrument, whether called a public health act or otherwise, provides the framework and power for government to monitor and respond to many different types of public health threats. In some, health protection provisions are included in legislation which establishes governmental health services (including hospitals) and regulates health professionals, an example being the *National Health Act 2003* of the Republic of South Africa. At the other extreme, one instrument is used solely to underpin the prevention and control of disease, for example, the UK *Public Health (Control of Disease) Act 1984* and the Hong Kong *Prevention and Control of Disease Ordinance 2008*.

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## The International Health Regulations 2005

The Hong Kong 2008 Ordinance, as a modern statute, makes reference to measures required of signatories to the new *International Health Regulations*. These were promulgated in 2005 by the World Health Organisation and came into force under

international law in June 2007. Readers may be familiar with the earlier versions of the *International Health Regulations* which largely confined their provisions to the prevention and control of a very small number of communicable human diseases of international concern, namely, yellow fever, cholera, and smallpox. The occurrence of severe acute respiratory syndrome (SARS) and continuing threat of highly pathogen avian influenza viruses with potential to become communicable to and between humans prompted a complete reevaluation and eventual re-design of the *International Health Regulations*. The new Regulations are based around the obligation of all countries to report to the World Health Organisation, rather than just three diseases, any “events which may constitute a public health emergency of international concern.” This reporting must be undertaken by signatory countries through a “national focal point.” In order to meet this obligation, countries are required to develop their capacity for surveillance and response to such an extent that they will be able to detect a significant public health event and, by an appropriate investigation, determine whether it reaches the threshold for notification to the World Health Organisation [6].

In many countries which are based on a federation of internally self-governing states or provinces, such as Australia, Canada, India, and the United States, the protection of public health, and hence public health legislation, is the responsibility of the state rather than national government. The surveillance and reporting of notifiable infectious diseases is thus organized at the state level; the SARS epidemic identified the weakness in administrative or other mechanisms for reporting between state and national health departments in these federal systems [7]. The *International Health Regulations* 2005 require federal governments to introduce systems whereby the obligation is established for state and national levels to exchange surveillance information between them. Cases or outbreaks of disease, diagnosed and reported from local to provincial/state level, are in turn reported to the national government; here they are collated and analyzed to determine whether notification is to be made to the regional office of the World Health Organisation.

It is usually the medical practitioner (in places, together with other health care professionals) who has the primary role of recognizing and reporting such cases to the appropriate public health authority. Public health legislation defines this responsibility and sets the rules for reporting – rules which vary considerable between jurisdictions – which may specify the list of relevant conditions, degree of certainty of diagnosis, who is to receive the report, the means and urgency of notifying, the exact information to accompany the notification, the extent to which the case-patient is to be identified, and obligations regarding confidentiality and disclosure. In addition to these rules, concerning the notification process itself, in much disease control legislation, medical practitioners have additional roles and responsibilities, and sometimes specific statutory powers, which may be attendant upon disease notification or which may reflect ancillary disease control measures such as vaccination or emergency response. The remainder of this chapter sets out in broad terms these duties of medical practitioners by taking examples from disease control legislation used in Australia, the United Kingdom, the United States, and other English-speaking countries.

## **Obligations of Medical Practitioners with Respect to Disease Notification**

### **Notification of Details of Identified Patients**

The statutory reporting of cases of infectious diseases (including suspicion of such diseases in the deceased), generally referred to as disease notification, underpins the surveillance and control of infectious disease. One form of surveillance may be accomplished by regular reporting of aggregate case numbers and rates at a local or small geographical level, such as the case number and rate per thousand population at a village, district or province level. It is the reporting of details of each individual case, usually including the name and other specific identifiers of the case, which is of particular concern. Also referred to as case-based surveillance, the notification of details of individuals provides the flexibility for the public health authority, through its epidemiological function, to analyze a set of cases to determine the statistical association between the presence of a particular disease and any demographic, behavioral, occupational, or environmental factor that may be routinely collected about each case.

Perhaps more importantly in the acute situation, case-based surveillance allows the public health authority, where necessary, to contact individual cases, and their health care providers, in order to carry out a public health response with the aim of preventing further cases of disease: determining potential sources of exposure; identifying and warning other individuals who may be at risk from the same source; identifying contacts of the case in order to advise them of symptoms to watch out for; to offer them prophylactic antibiotics or vaccines; and, if no prophylactic measures are available, at minimum provide information as to their risk.

The principle of the privacy of personal health information, held by health practitioners, espoused by both specific legislation and professional ethics, is generally held to mean that a public health authority as a third party is not entitled to discover the case's personal health details without that person's consent. As it is not feasible (and may not be desirable) for notifiers to routinely obtain patient consent prior to communication to authorities, a key provision of public health legislation is to both allow and require (with exceptions) the notifying practitioner to release the full identified and relevant details to the public health authority.

### **Who Is Required to Notify?**

The types of persons and organizations required to notify cases is very much a function of the complexity of, and resources available to, healthcare services in each jurisdiction. In developed countries, with well-resourced public and private sector health systems, sophisticated clinical diagnostic laboratories will be a major contributor to notifications. Whatever the setting, clinicians have an important role in notification, as well as in sharing the responsibility for public health response with identified public health personnel.

Medical practitioners have the duty to notify, as required, for example, by the applicable laws of the Australian states and territories, the *New Zealand Health Act 1956*, the Singapore *Infectious Diseases Act 1976*, the UK *Public Health (Control of Disease) Act 1984*, and the Hong Kong *Prevention and Control of Disease Regulation 2008*. Where medical practitioners are scarce or where other health practitioners are able to make diagnostic assessments, medical practitioners may be but one among several categories of healthcare workers with this responsibility. The provisions for prevention of dangerous diseases in the *Delhi Corporation Act 1957* give this responsibility to “Any person being in charge of, or in attendance, whether as a medical practitioner or otherwise,” and the *Himachal Pradesh Municipalities Act 1994* specifies “a medical practitioner or person openly and constantly practising the medical profession.” The regulations under the Republic of South Africa *National Health Act 2003* requires this of “a health provider”; the Ontario *Health Protection and Promotion Act 1991* states “a physician or a practitioner defined . . .” and goes on to list members of colleges for chiropractors, dental surgeons, nurses, pharmacists, and optometrists; the California *Communicable Disease Prevention and Control Act 1989* requires dentists, physicians, and registered nurses to report infectious diseases.

In some jurisdictions, the obligation to notify infectious diseases has been placed in the hands of lay members of the community, for example, a family member or other person dwelling with the case, or even with the case himself or herself, in addition to a medical practitioner. Although such requirements were in the original UK *Public Health Act 1856* and the NSW *Infectious Diseases Supervision Act 1881* and may seem antiquated, they continue to operate in some modern legislation, for example, the Tanzania *Public Health Act 2009* and the *Code of Massachusetts Regulations for Reportable Diseases, Surveillance and Isolation and Quarantine Requirements 2008*.

A logical extension of the notification responsibility of the medical practitioner or other healthcare provider is the extension of these responsibilities to managers and other personnel of hospitals. The rationale for this in NSW public health legislation, from the 1991 Act onward, has been to reduce the burden on general (family or primary care) practitioners for notification. This is effected by limiting the number of diseases they must notify to those readily diagnosed in the primary healthcare setting, for example, measles and whooping cough (pertussis) and making the conditions notifiable by hospital personnel those which should most likely require admission to hospital for assessment and diagnosis, for example, typhoid fever or meningococcal disease. In many other jurisdictions, medical practitioners and hospital personnel have identical responsibilities for notification.

It should be noted that where notification is required of both the attending medical practitioner – the clinical notification – and the person responsible for a clinical pathology laboratory – the laboratory notification – the two forms of notification are complementary as they provide quite different types of information [8]. The clinical notification is meant to be prompt and is to be made (usually) on the basis of suspected diagnosis, before any results of laboratory assays become available. This notification may include information on symptoms, disease onset date, risk factors, ethnicity, language spoken at home and occupation, for



example – data to which the laboratory is not generally privy. The laboratory will be able to provide information on specimen date and type, assay type and result, and, in accordance with good practice, the interpretation of the test result based on information provided to the laboratory by the requesting medical practitioner.

The medical practitioner is reminded that laboratory assays for diagnosis of infectious diseases may be lacking in specificity, and more so in sensitivity, and that they may not always be simple to interpret. Laboratory notification will not be discussed further; the key message is that medical practitioners are required to make a clinical notification pertaining to their patient, even if they know that a laboratory has already made, or will make, a notification on the same patient.

## Medical Conditions to Be Notified

It is usual for legislation to specify the list of infectious diseases, variously called infectious, contagious, communicable, or dangerous diseases, that are to be notified by the practitioner. The listing may appear as a schedule to the statute or in secondary legislation, such as regulations. The latter approach gives greater flexibility for government to amend the listing at short notice, by addition of an emerging infection, without recourse to parliament to make this change.

The specification of diseases may be very rudimentary, as with the *Tamil Nadu Urban Bodies Act 1998* which requires medical practitioners to report any infectious or contagious disease; at the administrative level, it is likely that some diseases will prompt a more comprehensive public health response than others. A more recent approach further acknowledges the advantage whereby a new disease can be reported, even before there is time for it to be listed in regulations, at the same time recognizing that it is the astute medical practitioner, seeing multiple cases, who will be in the best position to draw the attention of public health authorities to a new syndrome. This approach is also consistent with the generic all-risk regime of the *International Health Regulations 2005* which require countries to report to the World Health Organisation any “events which may constitute a public health emergency of international concern.”

The practical effect of this approach is evident in the Hong Kong administrative requirement for medical practitioners to report a suspected outbreak or case of infectious disease that is rare, severe, or important, that is not specified in the *Prevention and Control of Disease Ordinance 2008*. The *England Health Protection (Notification) Regulations 2010* incorporate an all-risk regime. In addition to the specified notifiable diseases, a registered medical practitioner is to notify a situation whereby a patient suffers an infection or contamination, namely, of a chemical or radiological substance, which, in the practitioner’s opinion, presents, or could present, significant risk to human health [9]. The *Code of Massachusetts Regulation on Reportable Diseases, Surveillance and Isolation and Quarantine Requirements 2008* requires reporting of “illness believed to be unusual.” The *NSW Public Health Act 2010* differs from the previous Act of 1991 in providing the option for a medical practitioner to notify details of

a patient who “is suffering from a medical condition or disease that may pose a significant risk to public health” other than one that is already listed as a notifiable condition [10].

### **Timeliness and Level of Certainty Required for Notification**

The time within which a disease must be reported relates to the window of opportunity when public health action can be effective in preventing further cases as well as concepts around the seriousness of the infection. Measles must be promptly notified because secondary cases can be prevented if contacts receive measles vaccine within 72 h of exposure. Tuberculosis which has a much longer natural history can be notified by mail on a routine basis because effective contact tracing may happen over a much longer time frame.

For those diseases which are highly communicable and have short incubation periods, in order for the public health response to be maximally effective, the notification of cases by medical practitioners must be prompt. This form of notification should be made on the basis of a provisional clinical diagnosis so that there is no delay in awaiting the results of confirmatory pathology testing. General practitioners may be reluctant to notify unless they are certain of the diagnosis [8], and, to counter this reluctance, public health authorities must encourage notification and provide feedback to notifiers as to their value in disease control in the community.

How promptly notifications are required to be made may be specified in legislation but more commonly is specified in administrative guidelines or instructions provided to potential notifiers. The England *Health Protection (Notification) Regulations 2010* require written notification to be made within 3 days of the medical practitioner forming suspicion of the disease but also require telephone reporting if the practitioner considers the matter to be urgent. The Republic of South Africa proposed communicable diseases control regulations grade diseases by how promptly the report is to be made: listed conditions require either urgent telephone notification with written confirmation within 24 h or written notification within 7 days [11]. The Oregon *Administrative Rules for Investigation and Control of Disease* break down reporting time frames into three categories: “immediate reporting, day or night”; reporting within 24 h; and reporting within one working day.

The promptness of notification and the certainty of diagnosis are inversely related. To allow prompt clinical notification, before the diagnosis can be confirmed by appropriate pathology testing, public health legislation must provide clarity about the level of certainty required of the practitioner. This is also a critical matter if the statutes provide penalties for failure to notify – such provisions are not common and it is unclear to what extent they are enforced. A commonly used standard of certainty is that of “reasonable suspicion” that a patient has the disease, and is used, for example, by the Singapore *Infectious Diseases Act 1976* and the England *Health Protection (Notification) Regulations 2010*. Notification under the New Zealand *Health Act 1956* and the Victoria *Public Health and Wellbeing Act*

2008 requires “reasonable belief” on the part of the practitioner. The standard of reasonable belief applied in the NSW *Public Health Act* 1991 was relaxed in the 2010 Act to a standard of reasonable suspicion, on the advice of public health physicians who, in their normal duties, encourage medical practitioners to notify suspected cases.

The Queensland *Public Health Act* 2005 provides additional definition around diagnostic criteria for notification by medical practitioners. Conditions are divided into “clinical diagnosis notifiable conditions” where a substantive diagnosis can be made on clinical evidence and “provisional diagnosis notifiable conditions” where a provisional diagnosis can be made on clinical evidence. Diseases in each category are specified in a schedule to the Queensland *Public Health Regulation* 2005 and acknowledge the need to balance the difficulty of ascribing a cause to some clinical syndromes with the importance of prompt notification even if the diagnosis is uncertain. Acute rheumatic fever is listed as a clinical diagnosis notifiable condition whereas acute viral hepatitis is a provisional diagnosis notifiable condition. For the former disease, a rapid individual level public health response is not required and diagnostic criteria are reasonably established by evidence-based clinical practice; in the case of acute viral hepatitis, it may be difficult to distinguish various causes of viral hepatitis (such as hepatitis A and acute hepatitis C) and even a viral from a toxic hepatitis, but a prompt public health response may be required in the expectation of the possibility that the illness may be hepatitis A and the case is placing members of the public at risk, for example, by virtue of being a contagious food handler.

Other aspects of this question are addressed in the US *Model State Public Health Act* which refers to a level of “ordinary skill” in making a diagnosis of a reportable disease [12]. The disease reporting clauses of the Oregon *Administrative Rules* acknowledge the balance that needs to be struck between diagnostic certitude and urgency of public health response with guidance that: a practitioner who is unsure whether a case meets the definition of a suspected case should err on the side of reporting if the suspected condition is one that requires reporting within 24 h or is highly transmissible or may result in serious health consequences.

The means by which a notification is to be made depends on the need to report promptly by phone and to transmit a written notification. Where facsimile transmission is available, this facilitates prompt written notification, although there may be concerns about the security and confidentiality of information sent in this means. A recent development is the introduction of internet-based systems by which medical practitioners can securely send notifications to the public health authority. Both the Hong Kong Centre for Health Protection and the Singapore Ministry of Health have introduced the option of a secure password-protected website for notification. This may be appropriate where medical practice is highly computerized and will not be suitable to all situations. In 2004, approximately 84 % of Australian general practitioners used a computer in their work [13] and so it would be very feasible to have notifications generated automatically by practice management software. This would be an important

advance for surveillance of notifiable conditions; it should be emphasized that the best communication of a condition which requires an urgent public health response is a telephone call, during which the local public health authority may ascertain important information on exposure, disease timing, and contacts while the medical practitioner may receive valuable advice about testing, case definitions, and other aspects of patient management [8].

Public health legislation in some jurisdictions specifies fines for failure to notify, and a small number provide for payments to be made to medical practitioners for each notification. Irrespective of incentives for notification, it is sound clinical practice to make a note in the patient record of the date and time of the notification and the means by which it was made; if made by telephone, the number and name of the person who took the notification should also be recorded.

### **Information to Be Notified and Not to Be Notified**

The essential feature of statutory notifications is that the medical practitioner is required, with certain exceptions, to provide identifying details of the case to the public health authority. This allows the authority to follow up the individual case directly, in order to take action to prevent further cases. The required personal details then include the name, date of birth or age, full residential address, and occupation or, for children, the name of the school or childcare facility which they attend. The diagnosis and onset date of the disease are to be provided and, in most jurisdictions, history of contact with the disease (if appropriate), vaccination status, and risk factors for the disease may also be required. The notifier must provide his or her own name and contact details so that the authorities may, if need be, ask the notifying practitioner additional clinical or risk factor information concerning the case.

The main exception to the requirement for inclusion of identifying details is the notification of human immunodeficiency virus (HIV) infection and Acquired Immunodeficiency Syndrome (AIDS). Using NSW as an example, at the time AIDS and HIV infection became recognized as primarily a sexually transmitted disease of men who have sex with men (MSM), a strong tension was recognized between the need to gain strong epidemiological information on an emerging infection of potentially catastrophic public health impact and the concern about social stigmatization of and legal action against MSM if they were allowed to be identified through the notification process. The *Public Health Act 1991* places HIV infection and AIDS in their own category; it recognizes the serious public health risk potentially posed by infected individuals and at the same time provides strong sanctions against revealing the identity of cases to third parties – including public health authorities – except in extreme situations of actual public health risk or with the consent of the individual. Such confidentiality provisions, with respect to HIV/AIDS, can be found in public health legislation in many jurisdictions. The Singapore *Infectious Diseases Act 1976* takes the presumption that identity of an individual with HIV/AIDS is not to be disclosed but provides legislative clarity by

including a comprehensive listing, within the Act, of situations in which the identity may, or may not, be revealed. The Act sets a clear obligation on the public health authority to inform contacts of the identity of the case. This requires the notifying medical practitioner to provide the case's identity to the authority. This disclosure power is also available to medical practitioners if they consider that a spouse, partner, or other contact is at significant risk of infection, that the case understands the risk to others but the medical practitioner forms the view that the case will not inform his or her contacts.

It is equally notable that some legislatures have taken the view that an inability to identify HIV/AIDS cases is a significant impediment to effective public health action and that all notifiable diseases must be dealt with in a confidential manner. The Communicable Diseases chapter of the California and Texas *Health and Safety Codes* and the Pennsylvania *Disease Prevention and Control Law 1955* require full identification of HIV and STI notifications. New York State revoked the requirement for de-identification of HIV infection in 2010 and passed an amendment requiring identified reporting to the commissioner for public health. The regulations include specific requirements for the healthcare provider to inform the patient of testing and notification procedures and a strong emphasis on maintaining confidentiality [14, 15].

### **Requirement to Inform Case of Measures to Take to Prevent Spreading the Infection**

On the basis that most individuals who have contracted a communicable disease will not have a clear understanding of how they were infected, or of what actions they should take, or not take, to prevent communicating their infection to others, it would seem good clinical practice for an attending medical practitioner to explain these matters to the case. The duty of the medical practitioner to counsel the case about means of preventing exposure of contacts is present in much public health legislation, for example, the US *Model State Public Health Act* proposes that the treating medical practitioner advise the case of "measures for preventing reinfection and spread of the disease." The New Zealand *Health Act 1956* and the NSW *Public Health Act 2010* take a narrower approach and require the practitioner to counsel only patients who have been diagnosed with a notifiable sexually transmitted infection on means to prevent further spread. These obligations on medical practitioners are supported by provisions that require cases to comply with directions from their own medical practitioners and/or the authorities to take actions to prevent spread of the disease to others.

### **Requirement to Inform Household and Other Contacts**

Some legislation casts a wider net of the persons to be informed: the Tanzania *Public Health Act 2009* requires the medical practitioner to inform the head of the

household or the occupier of the premises of this information, and the New Zealand *Health Act 1956* adds that such advice must be provided to the occupier of the premises where the case resides, and any person nursing or in attendance on the case.

In Australian public health legislation, there is a presumption that contacts are not informed by either the medical practitioner attending the case or by public health personnel of the identity of the case to whom they were (or may have been) exposed. This does not discount the possibility that one or more contacts may deduce the identity of the case, depending on circumstances. As in the case of HIV/AIDS, the Singapore *Infectious Diseases Act 1976* contains a specific provision for situations in which the authority may disclose identifying information on a case without consent to a contact – this currently applies to contacts of cases of SARS and tuberculosis but only in the situation, where disclosure is essential, to enable the contact to avoid the risk of infection. The US *Model State Public Health Act* proposes that when the authority informs contacts that they may have been exposed to a contagious disease, this information is given in a way that protects the identity and privacy of the case.

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## **Other Related Obligations of Medical Practitioners**

### **Examination of Patients as Directed by Public Health Authority**

The public health legislation of some countries allows for circumstances where an infectious individual who does not voluntarily comply with assessment and treatment is considered a great enough public health risk for his or her own right to autonomy to be overridden. In these circumstances, legislation may allow for a senior public health officer, whether medically qualified or otherwise, to direct a case to submit to isolation, medical and/or radiological examination, collection of clinical samples, counseling, treatment, or even detention. Some legislation may require that this order is made by a magistrate or other court or tribunal on application of the public health authority or that such a legal process must confirm the order within a few days of its initiation. The legislation may list a small number of communicable diseases considered of greatest public health concern if allowed to spread or may refer to notifiable infectious diseases generally. The situation in which such provisions have been most commonly applied has been that of the case of the individual with active pulmonary tuberculosis who has, for whatever reasons, not complied with the antimicrobial treatment that will render him or her noninfectious to others. In such cases, detention has been ordered to ensure the patient can be treated, while the emergence of extensive drug resistance among occasional *Mycobacterium tuberculosis* isolates has prompted some authorities to detain patients in extreme circumstances such as prison settings due to anxieties about the “escape” into the community of practically untreatable strains [16]. In relation to tuberculosis, detention is both expensive and damaging due to its psychological effect on healthcare workers cast in the role of jailers; it is

recommended that other means be found to induce compliance of the patient with medical directions [17, 18].

These orders invariably apply to the case and there are sanctions of varying severity, including arrest powers, to ensure compliance. Where medical practitioners are mentioned, it is generally to say that a patient must submit to examination by a medical practitioner; sometimes, as in the UK *Public Health (Control of Disease) Act* 1984, the practitioner is nominated by the authority. These provisions may then open the way for the authority to direct medical practitioners to take certain actions in respect of such patients. The Singapore *Infectious Diseases Act* 1976 requires a practitioner to furnish the authority with any information required for control of a disease or outbreak – this is a broad requirement and may apply to either a disease notification or information obtained following assessment of a patient directed under the Act to submit to medical examination. When a patient is directed under the Malta *Public Health Act* 2003 to have a medical examination by the public health authority, the Act requires the medical practitioner to conduct the examination promptly and to furnish a written report to the authority, with penalties provided if the practitioner fails to do so. The Victoria *Public Health and Wellbeing Act* 2008 obliges the medical practitioner to provide written results of the examination or specified tests to both the authority and the patient.

The US *Model State Public Health Act* simply recommends that legislation require the practitioner to advise the patient that treatment may be needed for the infection. Some states have taken up this provision, as, for example, the Texas *Communicable Disease Prevention and Control Act* 1989, which was amended in 2007 to require the treating practitioner to advise the patient of the “necessity for treatment until . . . cured or free from the infection.”

## **Use of Medical Practitioners in a Public Health Emergency**

The US *Model State Public Health Act* promotes the concept that healthcare workers may be called upon or directed to work during a public health emergency. The relevant provision suggests that medical practitioners and other providers may be required to assist in vaccination, treatment, examination, testing, decontamination, quarantine, or isolation of individuals as a condition of their continuing registration or licensure. The Malta *Public Health Act* 2003 states that during an epidemic, medical practitioners “shall not refuse to treat persons suffering from such disease.”

The occurrence of a public health emergency, whether of localized or more general nature, for example, a pandemic, is likely to test the resources of any affected jurisdiction. Where the emergency is caused by spread of a communicable disease, over a period of time, availability of suitably trained healthcare workers is a key limiting factor. Nurses and medical practitioners have been victims of such emergencies, as a result of their close contact with cases, the 1918–1919 “Spanish” influenza H1N1 pandemic being a well-recognized example [19]. The experience of Severe Acute Respiratory Syndrome (SARS),

with its high morbidity and mortality in hospital staff, identified reluctance among some healthcare workers to care for cases because of quite reasonable concerns for their own health or for the health of their own family members [20, 21]. The Ontario *Health Protection and Promotion Act* 1990 was amended in 2007 to allow the public health authority to direct medical practitioners and other healthcare providers to use personal protective clothing and equipment during an infectious disease outbreak.

## Other Powers of Medical Practitioners

Legislation rarely confers other powers on medical practitioners, and this is more likely to be the case in settings where specifically authorized public health personnel may not be available. The Tanzania *Public Health Act* 2009 gives medical practitioners the authority to direct a person, reasonably believed to be suffering from a communicable disease, to be isolated in the community, hospital, or treatment center. The draft *Communicable Disease Regulations* under the *National Health Act* 2003, Republic of South Africa, confers the authority on a medical practitioner to request a patient to submit to medical examination and isolation if required. The practitioner may apply for a court order if the patient refuses to voluntarily comply with these directions.

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## Conclusions

Effective disease control requires a strong and ongoing partnership between clinicians and public health personnel. Medical practitioners, in clinical practice, have a vital role in the control of diseases of public health concern. This role is reflected globally in the obligation, under health legislation, for medical practitioners to notify the public health authority of specific details of named patients suspected of having these diseases. While the principle is universal that the notification include the identity of the patient, so as to allow prompt and direct public health action if needed, jurisdictions have varying approaches to many other aspects of notification: the actual list of notifiable conditions; who must notify and based on what degree of diagnostic certainty; in what timeframe and with what specific details; what information is to be provided to the case; and who bears responsibility for contact tracing. In some jurisdictions, medical practitioners have associated statutory obligations and powers, related to the examination of a patient directed by the public health authority to be assessed, the furnishing of reports of such examinations, the role of the practitioner in ordering a patient into isolation, and responsibilities of medical practitioners in public health emergencies.

Although it is logically the responsibility of the health authority to ensure medical practitioners are aware of what they must do under public health legislation – and the US *Model State Public Health Act* goes so far as to propose this



government responsibility is itself enshrined in law – it is recommended that all medical practitioners, in clinical practice, seek out information about their local public health authority and what the relevant legislation asks the practitioner to do, regarding notification and disease control. The medical practitioner is encouraged to make contact with public health personnel, ask to be placed on mailing or email lists for surveillance updates, and have the telephone number of the public health authority readily to hand.

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## Ready Reckoner

The medical practitioner in clinical practice plays a key role in the control of disease(s) in the community, and public health personnel must work in partnership to mount an effective public health response.

The clinician is relied upon for prompt notification/reporting, treatment of cases to render them noninfectious to others, and assistance with identification, tracing, and management of contacts.

It is recommended to locate the name, telephone and facsimile numbers, postal and email addresses, as well as web page(s) of the public health authority relevant to the location of the practice(s).

It is advisable to have business hours and after-hours contact details of the public health authority on or near the clinician's desk for quick reference in the event of need to notify/report a case or to seek advice regarding management of a case of public health concern.

It is appropriate to maintain a list of those medical conditions which are to be notified – either as a printed sheet or the web link (URL) to the list maintained by the health authority. For the conditions to be notified, the following information or resources should be readily at hand (either in hard or soft copy or quickly available via a web link):

- How quickly is each to be notified (be it immediately, within 24 h, or less urgent)?
- The level of certainty of the diagnosis (whether suspected, provisional, or confirmed).
- The official form for each condition or group of conditions to be notified.
- Whether the authority requires the *actual* notification form to be submitted (and, if so, in hard copy or electronic/online form) or whether it is acceptable for the information specified on the form to be given without using the form itself (namely, by phone, hand-written communication, or email).
- What information is required to be provided (if known) for each condition or group of conditions?
- Is the notification to be identified or de-identified (using a name code instead of full name and/or postal code in place of full address)?
- Whether it is necessary to notify the case details if known that another clinician has already made the same notification.

- If a laboratory has notified a positive test result on the case, is the clinician still required to make a clinical notification as it contains important information unavailable to the laboratory?

- Is there a penalty for failing to notify a case?

Apart from the actual process of notification, does legislation require the clinician specifically to counsel the case as to ways to prevent it being spread to others?

Ascertain whether the clinician or the public health authority has responsibility for identifying and counseling contacts of the case, or whether this is a shared responsibility. Issues to be considered include the following:

- Who will identify the contacts?
- What are the procedure and/or responsibility if the case refuses to identify contacts?
- When is it adequate to accept a reassurance from the patient that he or she will inform the contacts?
- If, and under what circumstances, is it acceptable to give to a contact the name of the case and/or the name of another contact?
- What information is to be given to contacts?

Information to be given to contacts of a particular case should be consistent and it may be desirable for the public health authority to provide a standard script of written advice which can be used by the medical practitioner and public health personnel.

When making a statutory notification, it is wise to inform the patient of the legal requirement to notify the public health authority of the patient's details.

Contemporaneous entry in the medical record that the patient has been informed, including details of time, date, and means of notification, of the person to whom such notification was made and any actions/advice that were asked to be taken or received provide confirmation of what occurred.

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## References

1. Gensini GF, Yacoub MH, Conti AA. The concept of quarantine in history: from plague to SARS. *J Infect.* 2004;49:257–62.
2. Poor Law Commissioners. Report on the sanitary condition of the labouring population of Great Britain, 1842. Edinburgh: Edinburgh University Press; 1965.
3. Hamlin C, Sheard S. Revolutions in public health: 1848, and 1998? *Br Med J.* 2003;326:345–6.
4. McCormick A. The notification of infectious diseases in England and Wales. *Commun Dis Rep Rev.* 1993;3:R19–25.
5. Thompson JA. Notification of infectious diseases. *Br Med J.* 1882;28:860–1.
6. Rodier G, Hardiman M, Plotkin B, Ganter B. Implementing the International Health Regulations (2005) in Europe. *Eurosurveillance Monthly Release.* December 2006. Available at <http://www.eurosurveillance.org/em/v11n12/1112-222.asp>. Accessed 1 Jan 2007.
7. Wilson K, McDougall C, Upshur R. The new International Health Regulations and the federalism dilemma. *PLoS Med.* 2006;3(1):e1. doi:10.1371/journal.pmed.0030001.
8. Allen CJ, Ferson MJ. Notification of infectious diseases by general practitioners: a quantitative and qualitative study. *Med J Aust.* 2000;172:325–8.

9. Public Health, England. The Health Protection (Notification) Regulations 2010, clause 2(1)
10. New South Wales. Public Health Act 2010, section 57.
11. Republic of South Africa Department of Health. National Health Act, 2003, Regulations relating to communicable diseases. Staatskoerant, 13 April 2010, p. 18.
12. Turning Point. Model state public health act, September 2003, section 5–103, p. 28–9.
13. Henderson J, Britt H, Miller G. Extent and utilisation of computerisation in Australian general practice. *Med J Aust.* 2006;185:84–7.
14. New York State Department of Health. Amendment of Part 63 of Title 10, HIV/AIDS testing, reporting and confidentiality of HIV related information. [http://www.health.ny.gov/regulations/public\\_health\\_law/part\\_63/docs/amended\\_part63.pdf](http://www.health.ny.gov/regulations/public_health_law/part_63/docs/amended_part63.pdf). Accessed 6 Oct 2012.
15. It's the law. What is? *Body Posit.* 1999;12(3):20–1.
16. Coker R, Thomas M, Lock K, Martin R. Detention and the evolving threat of tuberculosis: evidence, ethics and law. *J Law Med Ethics.* 2007;35:609–15.
17. Senanayake SN, Ferson MJ. Detention for tuberculosis: public health and the law. *Med J Aust.* 2004;180:573–6.
18. Conaty S. Detention to prevent transmission of tuberculosis: a proportionate public health response. *NSW Public Health Bull.* 2012;23:120–1.
19. Duncan K. Lessons from the 1918 Spanish flu. Part I. Available at [http://www.riskinstitute.org/peri/images/file/Lessons\\_from\\_1918\\_PartI.pdf](http://www.riskinstitute.org/peri/images/file/Lessons_from_1918_PartI.pdf). Accessed 7 Oct 2012.
20. Imai T, Takahashi K, Hoshuyama T, Naoki Hasegawa N, Lim M-K, Koh D. SARS risk perceptions in healthcare workers, Japan. *Emerg Infect Dis.* 2005;11:404–10.
21. Masur H, Emanuel E, Lane HC. Severe acute respiratory syndrome: providing care in the face of uncertainty. *J Am Med Assoc.* 2003;289:2861–3.