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including the right to development**

Medico-legal death investigations

Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions, Morris Tidball-Binz*

Summary

In the present report, the Special Rapporteur on extrajudicial, summary or arbitrary executions focuses on forensic medicine and examines the challenges facing medico-legal death investigation systems and contemporary forensic professionals, in particular forensic doctors and ancillary specialists, in the investigation of potentially unlawful deaths. The Special Rapporteur draws on the experience of forensic doctors and professionals from all regions of the world who shared their views to help him to achieve a global understanding of the current status of national medico-legal death investigation systems. He also offers examples of best practices in the area of medico-legal death investigations and formulates recommendations to enhance such systems, including through compliance with the standards that the mandate helped to develop, promote and implement over its 40 years of existence (the Principles on the Effective Prevention and Investigation of Extra-legal, Arbitrary and Summary Executions, of 1989, and the Minnesota Protocol on the Investigation of Potentially Unlawful Death, 2016), with the aim of strengthening the protection of the right to life.

* The present report was submitted after the deadline so as to include the most recent information.



I. Introduction

1. The present report is submitted to the Human Rights Council in accordance with Council resolution 44/5. It is the first submitted to the Council by Morris Tidball-Binz, Special Rapporteur on extrajudicial, summary or arbitrary executions, since his appointment on 1 April 2021. In it, he examines the challenges facing medico-legal death investigation systems, in particular forensic doctors and ancillary specialists, in seeking to identify the cause and manner of potentially unlawful deaths.

2. In preparing the report, the Special Rapporteur issued a call for submissions from States and representatives of academia and civil society on the state of knowledge and implementation of the Minnesota Protocol on the Investigation of Potentially Unlawful Death and the Principles on the Effective Prevention and Investigation of Extra-legal, Arbitrary and Summary Executions. The Special Rapporteur wishes to express his sincere appreciation to all those who submitted responses. He also draws on research by the Global Research Initiative on Forensic Medicine and Human Rights at Monash University in Australia where the Special Rapporteur is an Adjunct Professor. Forensic specialists from all regions of the world were interviewed about their national medico-legal death investigation systems with the aim of achieving an evidence-based global understanding of the status of such systems. Forensic specialists were asked about the challenges they faced and what they considered to be best practice. Additional consultations were held with regional networks of medico-legal and forensic services from Africa, the Americas, the Middle East, Europe, and Asia and the Pacific and with representatives of intergovernmental and international organizations, including the Inter-American Court of Human Rights, the Office of the United Nations High Commissioner for Human Rights (OHCHR), the United Nations Office on Drugs and Crime (UNODC) and the International Committee of the Red Cross (ICRC). The Special Rapporteur thanks all those who shared their views.

II. Activities of the Special Rapporteur

3. The present report covers the main activities undertaken by the Special Rapporteur from 1 April 2021, when he was appointed, to 31 March 2022.

A. Communications

4. During the reporting period, the Special Rapporteur issued, alone or jointly with other special procedures, a total of 147 communications to States and non-State actors, and 59 press statements.

B. Meetings and other activities

5. During the same period, the Special Rapporteur met with representatives from 53 Permanent Missions in Geneva; several international organizations, government institutions, academic entities, including Monash University and the Geneva Academy of International Humanitarian Law and Human Rights, and professional bodies; other special procedure mandate holders, members of the treaty bodies and numerous non-governmental organizations (NGOs); and relatives of victims of extrajudicial, summary or arbitrary executions. During the meetings, the Special Rapporteur discussed possible areas of work of the mandate, including the provision of technical assistance and capacity-building, and offered his good offices and advice, in particular on forensic best practices, to governmental entities, NGOs and victims, as well as to United Nations system entities and academic bodies. For instance, he initiated, together with OHCHR in the Philippines, the organization of a training for public officials and civil society on the Minnesota Protocol, to be conducted in Manila in the course of 2022, in the context of the Philippines-United Nations joint programme on human rights. The Special Rapporteur also supported the OHCHR Regional Office for Central America and Dominican Republic on the occasion of the publication of a

manual on the investigation of extrajudicial killings and torture for the Office of the Public Prosecutor of El Salvador.

6. From 5 to 10 December 2021, the Special Rapporteur participated in a series of activities in Argentina for the promotion and implementation of the Minnesota Protocol at the national and regional levels. As part of the activities planned to mark the mandate's fortieth anniversary, he organized, together with the International Centre for Political Studies of the National University of San Martín, the OHCHR Regional Office for South America, the Ministry of Public Defence of Argentina and the Inter-American Court of Human Rights, a regional exchange on good practices and challenges in the promotion and the implementation of the Minnesota Protocol, held in Buenos Aires from 28 to 30 March 2022.

III. The duty to investigate death

7. States have a duty to investigate the potentially unlawful deaths of which they are or ought to be aware. Indeed, all deaths require some degree of investigation to verify whether they are potentially unlawful or not. The Human Rights Committee found that the duty to investigate potential violations of the right to life is implicit in the obligation to protect life and reinforced by the general duty to ensure the rights recognized in the International Covenant on Civil and Political Rights.¹ In a 2015 report, a former Special Rapporteur, Christof Heyns, noted that the right to life cannot be considered fully protected unless thorough and effective investigations are conducted into any situation in which it may have been violated. States must conduct such investigations with reference to as much forensic expertise as necessary.² Thus, a failure to conduct a proper investigation is regarded, in itself, as a violation of the right to life.

8. In 1988, the Inter-American Court of Human Rights rendered a judgment in which it established that the obligation to investigate is part of the State's duty to protect the right to life, together with ensuring accountability for those responsible and adequate compensation for victims.³ The duty to investigate potential violations of the right to life must be undertaken not as a mere formality preordained to be ineffective,⁴ nor must an investigation depend upon the initiative of the victim or their family or upon their offer of proof, without an effective search for the truth by the government.⁵ The judgment concludes with the observation that, where the acts of private parties that violate human rights are not seriously investigated, those parties are, in effect, aided by the government.⁶

9. In 1995, the European Court of Human Rights found that the obligation to protect the right to life requires an effective official investigation.⁷ The failure to adequately investigate alleged violations of the right to life may itself amount to a violation of the right to life.⁸ The Court subsequently affirmed that this obligation should be understood to be an inherent part of the right to life itself and a duty in its own right.⁹ The Court also clarified that the duty to

¹ Human Rights Committee, general comment No. 36 (2018) on the right to life (CCPR/C/GC/36, para. 27).

² A/70/304, para. 63.

³ Inter-American Court of Human Rights, *Velásquez Rodríguez v. Honduras*, Judgment, 29 July 1988. See also, Alexandra R. Harrington, "Life as we know it: the expansion of the right to life under the jurisprudence of the Inter-American Court of Human Rights", *Loyola of Los Angeles International and Comparative Law Review*, vol. 35, No. 2 (Spring 2013).

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.

⁷ European Court of Human Rights, Grand Chamber, *McCann and Others v. the United Kingdom*, Application No. 18984/91, Judgment, 27 September 1995, paras. 160–161.

⁸ See, for example, European Court of Human Rights, *Salman v. Turkey*, Application No. 21986/93, Judgment, 27 June 2000 (34 EHRR 425), para. 99.

⁹ See European Court of Human Rights, Grand Chamber, *Mastromatteo v. Italy*, Judgment, 24 October 2002, para. 89; and European Court of Human Rights, Grand Chamber, *Janowiec and Others v. Russia*, Applications Nos. 55508/07 and 29520/09, Judgment, 21 October 2013, para. 132.

investigate unlawful deaths applies even when the State has no involvement with the death.¹⁰ Similarly, the African Commission on Human and Peoples' Rights, in its general comment on the right to life, makes clear that the failure of States to transparently investigate suspicious deaths constitutes a violation of the right to life.¹¹

10. The duty to investigate has been given greater recognition and weight in the Minnesota Protocol, which supplements the Principles. In the Protocol, it is established that investigations must be prompt, effective, thorough, independent, impartial and transparent and that the duty to investigate applies at all times: during peacetime, in situations of internal disturbance and during armed conflicts. The Protocol provides practical guidance about the steps that ought to be taken in death investigations. It serves to promote accountability and remedy for possible violations of the right to life. The Human Rights Committee¹² and the Inter-American Court of Human Rights¹³ have both affirmed that investigations of potentially unlawful deaths should be undertaken in accordance with international standards, including the Protocol.

11. International law makes it clear that the failure to properly investigate death devalues life. The medico-legal death investigation process is one means by which society can signal that each human life matters. Governments should enable such processes to be organized and conducted in ways that reflect this understanding.

A. Purpose and impact of medico-legal death investigation systems

12. The core purpose of medico-legal death investigation systems is to establish the identity and the cause and manner of death of persons in cases of potentially unlawful deaths. Identity is understood as the attribution of the valid birth name and/or other appropriate name to the dead body; cause of death refers to the medical cause of death; and manner of death refers to whether the death is due to homicide, accident, suicide or natural causes or is undetermined.

13. The contribution of medico-legal death investigation systems to criminal justice, the rule of law and the protection of the right to life cannot be overstated. For example, forensic doctors may be the first to identify societal hazards, such as rising drug-related deaths, deaths due to faulty consumer goods and trends in work-related deaths. The forensic evaluation of deaths has helped to prevent traffic accidents, workplace accidents and sudden infant deaths and to elucidate family and intimate partner violence, including femicide, and deaths in custody. When hospital deaths occur, autopsies are indispensable in understanding the clinical course and death of patients, thus helping to prevent future deaths. Knowledge of the appearance of lungs from autopsies of individuals who died of the coronavirus disease (COVID-19), for instance, contributed to lowering patient mortality and developing preventive measures. Medico-legal death investigations also play a major role in inquiries into allegations of war crimes, crimes against humanity and genocide.

14. However, despite their central role in investigating deaths and their contribution to protecting life, medico-legal death investigations often suffer from insufficient recognition, funding and resources from States and tend to be regarded as lacking priority when compared to related public services, including the police and the administration of justice.

¹⁰ See, for example, European Court of Human Rights, Second Section, *Menson v. the United Kingdom*, Decision as to the Admissibility of Application No. 47916/99, 6 May 2003; and European Court of Human Rights, Grand Chamber, *Mustafa Tunç and Fecire Tunç v. Turkey*, Application No. 24014/05, Judgment, 14 April 2015, paras. 169–171.

¹¹ African Commission on Human and Peoples' Rights, general comment No. 3 on the African Charter on Human and Peoples' Rights: the right to life (art. 4, para. 15).

¹² General comment No. 36 (2018), para. 27.

¹³ See, for example, Inter-American Court of Human Rights, *Ortiz Hernández y Otros v. Venezuela*, Judgment, 22 August 2017, paras. 158–161; and Inter-American Court of Human Rights, *Ruiz Fuentes v. Guatemala*, Judgment, 10 October 2019, para. 180.

B. Structure of medico-legal death investigation systems

15. The structure of medico-legal death investigation systems is highly variable among and sometimes within countries, including with regard to their independence and reporting lines. Systems may be national, regional and/or local. There may be several systems operating simultaneously in different jurisdictions, such as in the case of States with a federal structure. Forensic medical services may be based within special-purpose public institutions, police forces, the military, hospitals and/or universities, or rely on contracted providers. Systems may be overseen by or accountable to ministries of health, justice, the interior, education, the judiciary or similar ministries, or some combination thereof. Sometimes medico-legal death investigation services operate as statutory authorities governed by boards accountable to one or more ministries. Private forensic service providers may be engaged on a contractual basis to replace or complement existing services.

16. Forensic specialists, including forensic doctors, working in medico-legal death investigations may variously be directed by and/or report to courts, investigating judicial officers, legally or medically trained or lay coroners, prosecutors, police, or senior hospital or university staff, and/or a governing board established by law. Some may also be privately engaged as expert witnesses.

17. The types of death that require an investigation vary widely among countries. However, in many contexts, the discretion of investigative authorities may limit the cases requiring a medico-legal death investigation, which may negatively impact the duty to investigate all potentially unlawful deaths.

18. Funding for forensic services may come from various sources, such as the police, prosecutors, courts and/or various government departments. Funding may be assigned for services provided, such as autopsies, or be allocated in the budgets of the institutions themselves, or derive from any combination of funding sources, including contributions from convicted persons and insurance companies.

19. Overall, research and postgraduate training in forensic science, including career development opportunities for students and practitioners, are very limited. Only in a limited number of contexts do forensic professionals benefit from a reinforcing cycle of service, including casework combined with teaching and research.

C. Forensic doctors

20. Various professional disciplines contribute to reliable medico-legal death investigations, in particular forensic doctors, who are expected to determine the cause of death, contribute to the identification, give an opinion on the manner of death and certify death after completing an investigation.

21. Forensic doctors are medically trained and specialized professionals. Their practice is concerned with medico-legal death investigations but often involves the living (victims of assault, sexual violence and torture, for instance). They should have proven expertise in injury evaluation and anatomical pathology, which are critical to the proficient conduct of autopsies, among other subjects and skills.¹⁴

¹⁴ Some critical competencies for the forensic doctor undertaking medico-legal death investigations include: basic pathological sciences, i.e. microbiology and molecular biology, including genetics, biochemistry and haematology; anatomical pathology, i.e. identification of macroscopic and microscopic features of disease and injury patterns, and sufficient histopathology to evaluate findings of forensic significance; aspects of neuropathology and paediatric, cardiac, and obstetric and neonatal pathology; principles of toxicology, including sample selection, preservation, analysis and interpretation; forensic radiology, including post-mortem computerized tomography (CT) examination; forensic pathology, as discussed in major texts and literature; medical law and ethics; death scene management, examination and interpretation; autopsy, including supervised experience and assessment, and understanding of post-mortem changes and artefacts; and report-writing.

D. Autopsy or post-mortem examination

22. An autopsy or post-mortem examination normally includes a detailed external examination followed by the dissection and internal examination of a dead body. The purpose of such an examination in potentially unlawful deaths is to discover, describe and record the pathological processes, including injuries, and characteristics thereof, present in the deceased. With knowledge of the history of the case, including the medical history and findings from the death scene, the forensic doctor can reach conclusions about the cause and manner of death and, where unclear, the identity of the deceased. Other specialist examinations, investigations, analyses and opinions are often required, including to confirm the identity of the deceased.¹⁵ The findings from a forensic autopsy or post-mortem examination are essential for establishing the circumstances of the death and help to determine the causes and manner of the death. Any limitations on carrying out a full autopsy in cases of potentially unlawful deaths, including the required dissection and internal examination of the body, should be duly documented, and the reasons for them given, in the autopsy report.

23. Where the circumstances of death are in question, the forensic doctor must apply the autopsy findings to the reconstruction of those circumstances. Doing so will generally require attendance at the death scene, preferably with the body in situ. Forensic doctors must record their observations and findings so as to enable other professionals to independently reach conclusions. This process is termed reviewability and is a fundamental standard. The resulting report should be comprehensive and include an evidence-based opinion about the identity of the deceased and the cause, manner and circumstances of death. The autopsy report also needs to be sufficiently detailed to enable the evaluation of new issues not taken into account in the autopsy.

24. An autopsy has ethical and religious significance and should endeavour to respect the culture and customs of all persons affected by the investigation, as well as the wishes of family members, while still fulfilling the duty to conduct an effective investigation.¹⁶ Where religious communities have concerns regarding the delay of burials or the disfigurement of bodies, special efforts must be made in partnership with communities to find ways in which the requirements of justice and religious and cultural beliefs might be best met. The person undergoing an autopsy has usually died recently. To their relatives and friends, the deceased retains the characteristics of a person. Thus, the body should be treated with respect. The autopsy should be necessary, properly authorized and meet legally defined objectives. The work of all involved in medico-legal death investigations should adhere to ethical principles as identified in the Minnesota Protocol.¹⁷

E. Death scene investigation: the role of forensic doctors

25. According to paragraph 90 of the Minnesota Protocol, the forensic doctor should generally attend death scenes. The police play an essential role at crime scenes: securing and recording scenes, collecting and securing evidence and exhibits, ensuring a chain of custody for evidence collected and interviewing potential witnesses. However, injuries and their effects, physiology and physiological responses, bleeding, blood, concussion, unconsciousness, dying and death, and post-mortem changes, among other phenomena, can only be evaluated by a forensic doctor.

¹⁵ Examples of specialties include toxicology, histology, neuropathology, anthropology, odontology, entomology, microbiology, biochemistry, molecular biology (i.e. DNA), tissue culture, implanted device testing (e.g. pacemaker, implanted defibrillator interrogation), and related forensic sciences, such as fingerprint analysis, ballistics and chemistry. These investigations are routinely used in some medico-legal death investigation systems.

¹⁶ See Mohamed M. El Nageh and others, *Ethical Practice in Laboratory Medicine and Forensic Pathology* (Alexandria, Egypt, World Health Organization Regional Office for the Eastern Mediterranean, 1999). See also Minnesota Protocol on the Investigation of Potentially Unlawful Death, para. 43.

¹⁷ See paras. 41–45 of the Protocol.

F. Shortcomings and difficulties

26. The shortcomings reported in the present section were repeatedly recounted in interviews with senior forensic actors carried out as part of the research for the report. Not all problems are experienced by every State, or to the same degree. However, the problems described affect the principal aspects of medico-legal death investigation systems, including: governing legislation; education and training; the availability of trained professionals; the handling of death scenes; autopsy authorization processes; access to evidence, facilities and material resources, including equipment; occupational health and safety standards; and the availability of necessary ancillary specialist services.

27. Many countries have an insufficient number of forensic doctors to service their medico-legal death investigations. In others, doctors without forensic education or training may be appointed to forensic medical positions.

28. Legislation governing medico-legal death investigations is often inadequate to comply with standards, including those recommended in the Minnesota Protocol, or to meet contemporary challenges in death investigations.

29. Written autopsy reports might not be produced, or not to a standard that enables review. Quality assurance and control processes, including the certification of professionals and the accreditation of laboratories, exist in only a few jurisdictions.

30. Medico-legal death investigation systems are often poorly funded and cannot perform as required by international standards.

31. In many contexts, medico-legal death investigations systems are not fully independent, including where they are part of police or security forces, which also raises questions on the objectivity and impartiality of the investigations under their responsibility. Worldwide, there are few academic departments of forensic medicine. Forensic medicine is a postgraduate medical specialty, yet many medico-legal death investigation systems operate without forensic doctors with specialized education. Many homicides and other unnatural deaths are thus not recognized or not properly investigated, if at all. The lack of academic involvement also means that the needed scientific research is rarely conducted.

32. Many towns and regions beyond major cities, especially in rural areas, lack adequate or properly resourced medico-legal death investigation systems, rendering it more likely, in those places, that potentially unlawful deaths go undetected or uninvestigated.

33. Autopsies should ideally be carried out soon after death. However, this may not always occur. Forensic doctors may not have access to adequate facilities; the relevant administrative processes, including autopsy authorization, may take time; and the backlog of cases prevent all but the most urgent cases being autopsied. Therefore, when examined, bodies may be in various stages of decomposition, and evidence and findings compromised, as a result.

34. Facilities upon which forensic doctors rely for carrying out post-mortem examinations are frequently not fit for purpose, including funeral parlours and cemeteries.

35. In resource-poor settings, mortuaries, where available, often lack essential installations and resources, such as electricity, running water, ventilation, operational refrigerated storage for bodies, lockable crypts and body bags and tags. Often, there are no suitable viewing and waiting rooms for families. Sometimes, multiple bodies are secured in compartments intended for a single body, resulting in the undignified management of the dead and undue evidentiary contamination among bodies. Mortuaries may also be vermin infested and not properly cleaned. After conducting an autopsy, there may be nowhere for the forensic doctors and technical staff to shower. The lack of basic personal protective equipment may leave staff at risk of disease and infection. There may be no dedicated area where forensic doctors can write reports and often no secure filing repository. Little or no attention is paid to the psychological well-being of mortuary personnel.

36. Poor pay and competing demands on the forensic doctor's time often result in insufficient time devoted to individual autopsies, resulting in unreliable reports. When staff are paid per autopsy performed, there may be an inducement to do as many autopsies as

possible. This can produce unreliable results, is disrespectful to the deceased and their families and subverts the ethical imperative for the autopsy to contribute as much as possible to the common good.

37. Forensic doctors rarely have the same status as other medical specialists. They deal with the dead, they may not have specialist qualifications and they are incorrectly perceived to contribute little to the saving of lives. Overall, this often becomes a vicious circle, causing young doctors to opt for other specialties.

38. In many contexts, the identification of dead bodies or human remains is the responsibility of the police. However, the involvement of a forensic medical professional as well as other specialists, such as forensic anthropologists, dentists and geneticists, remains crucial, including in cases of enforced or involuntary disappearances.

39. Medico-legal death investigations that incorporate a gender perspective remain the exception, which may affect investigations of unlawful deaths resulting from gender-based violence, such as in cases of femicide.¹⁸ Very few medico-legal death investigation systems have institutionalized comprehensive gender-perspective awareness and training programmes for their staff and only a minority apply gender-sensitive standard operating procedures. UNODC and OHCHR, among others, are contributing to addressing this problem.¹⁹

40. Few countries have centralized and reliable statistics on bodies that remain unidentified after medico-legal death investigations or systems in place for ensuring their identification in future. It is therefore important to stress that every unidentified body corresponds to a missing person.

41. In some contexts, there may be no death investigation in cases in which the identity of the deceased is unknown. This may amount to a failure to comply with the duty to investigate all potentially unlawful deaths and particularly affects members of the poorest and most marginalized communities and groups, including refugees, displaced persons and undocumented migrants. It is therefore imperative that, when any person within a State's borders, or in any setting under State authority, may have been the victim of a potentially unlawful death, the death is effectively investigated.

42. In countries with comprehensive death certification systems, the provision of a death certificate documenting a natural cause of death often serves as evidence that no further investigation is required; otherwise, the case should lead to a medico-legal death investigation. However, only around 67 per cent of deaths worldwide are registered with cause-of-death information, meaning that, among at least 30 per cent of deaths, the identification of potentially unlawful deaths requiring a proper medico-legal death investigation is compromised.²⁰

43. In some countries and jurisdictions, families of the deceased are not allowed to speak to forensic doctors responsible for the death investigation of their loved ones, and forensic doctors might be prohibited from engaging with bereaved relatives. Sometimes, families might not even have the right to review the report.

44. In some cases, families may be expected to cover the costs associated with a death investigation, including for the autopsy, transport and storage of the body of the deceased.

¹⁸ A regional standard was developed for Latin America by the Office of the United Nations High Commissioner for Human Rights (OHCHR). See Camilo Bernal Sarmiento and others, *Latin American Model Protocol for the Investigation of Gender-Related Killings of Women (Femicide/Feminicide)* (OHCHR and United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women), 2014).

¹⁹ See, for example, Mirko Fernandez and Jane Townsley, *The Handbook on Gender-Responsive Police Services: For Women and Girls Subject to Violence* (United Nations Office on Drugs and Crime and others, 2021); and *Integrating a Gender Perspective into Human Rights Investigations: Guidance and Practice* (United Nations publication, 2018).

²⁰ See, World Bank, "Completeness of death registration with cause-of-death information", Global Health Observatory data repository. Available at <https://data.worldbank.org/indicator/SP.REG.DTHS.ZS?end=2017&start=1998>.

45. Violence or threats of violence suffered by forensic doctors and other specialists for their role in investigating deaths, including in cases of human rights violations, are a reality in some contexts. Forensic practitioners must be protected when discharging their functions, and any threat or attack they may suffer as a result must be punished accordingly, irrespective of the source of such threats or acts.

46. Crime scenes of potentially unlawful deaths may not always be protected; as a result, evidence may be lost or corrupted.²¹ Body bags may be unavailable to facilitate the transport of the body and protect evidence. This practice fails to accord the body respect, aggravates deterioration, and may cause loss or cross-contamination of evidence.

47. In many contexts, forensic doctors are not available or are not required to attend potentially unlawful death scenes for the documentation and recovery of human remains, and, in some settings, not even the police attend such scenes to carry out the necessary investigations, or they attend with much delay, including days after the death; in such contexts, there is a corresponding risk that the evidence required to reliably investigate a potentially unlawful death may be lost. These practices are contrary to the requirement under international law that investigations be prompt, effective and thorough.

48. Forensic doctors and other forensic professionals may experience difficulties with regard to access to essential specialized services, such as fingerprint analysis and ballistics, or specialized tools, such as computerized tomography (CT) scans, to assist in their post-mortem examinations, analysis and investigations.

49. In some contexts, the deregulation of medico-legal death investigation systems has resulted in the privatization of some or all forensic medical services, with a loss of available qualified professionals and difficulties in filling vacancies outside urban areas.

50. The shortcomings and difficulties outlined in the present report raise questions about the status of the protection of the right to life, which requires adequate institutions and procedures to reliably investigate every potentially unlawful death. The Special Rapporteur considers that, with few exceptions, there is insufficient capacity at the global level to conduct investigations into potentially unlawful deaths, in accordance with the Principles on the Effective Prevention and Investigation of Extra-legal, Arbitrary and Summary Executions and the Minnesota Protocol.

G. Independence

51. The contribution of medico-legal death investigation systems in cases of potentially unlawful deaths may be severely compromised simply because of the organizations upon which they must rely for funding and/or to which they must report.

52. For structural, legal and financial reasons, forensic doctors and other specialists are often limited in the exercise of their professional discretion. In most if not all States, the police service is the first responder to reports of potentially unlawful deaths and is therefore usually entrusted with determining, often without access to the necessary technical expertise, whether a death is suspicious and requires an investigation. This may often result, for instance, in deaths that may be caused by homicide to be classified instead as natural or due to suicide or accident, with no further investigation. If forensic doctors have not attended the scene, they may have no information or no first-hand information about the circumstances in which the body was found or other relevant information. Forensic doctors may not be permitted to speak with the family or witnesses or to examine the medical records of the victim. They may thus be entirely reliant on reports of the police and/or of other non-medical personnel.

53. The Special Rapporteur considers that there exists no satisfactory explanation as to why, in many contexts, evidence that may help to determine the cause and manner of death is provided to forensic doctors second-hand, if at all. Furthermore, there exists no satisfactory

²¹ Ken Obenson and George Enow Orock, "An overview of the challenges facing death investigation systems in certain resource limited countries", *Journal of Forensic and Legal Medicine*, vol. 50 (August 2017).

explanation as to why a forensic medical decision, such as that of whether an autopsy is needed, is often made by people with no forensic medical training. The Special Rapporteur is aware that there may be historical and cultural reasons to explain that, at least partially. These practices and regulations may, in fact, have been instituted in colonial times or adopted when the state of development of forensic science did not necessarily allow it to add significantly to conclusions about the cause and manner of death. However, as forensic medicine and judicial needs have dramatically evolved, this is no longer the case today.

54. Despite the centrality of post-mortem examinations and autopsies to death investigations, forensic doctors are largely secondary actors, who are hampered in the exercise of their professional expertise. In particular, the strong dependence on police decision-making (and/or prosecutors or investigating judicial officers) directly interferes with the independence of forensic doctors. This may affect the impartiality of investigations and is thus contrary to the Principles and the Minnesota Protocol.

H. Best practices

55. In addition to identifying the many problems and shortfalls in medico-legal death investigation systems worldwide, the research carried out for the present report also identified best practices which may serve as models.

56. The structure of forensic medical services in Costa Rica has much to recommend it. Services are under the administration of the constitutionally and budgetarily independent judicial branch of government. The Office of Legal Medicine contains units dedicated to forensic pathology, psychiatry, psychology, radiology, anthropology and dentistry, and to clinical and occupational forensic medicine. An Office of Forensic Sciences, also within the judicial branch, is physically located next door to the Office of Legal Medicine, facilitating daily communication among medical and scientific forensic actors. There are 10 legal medicine subunits around the country. People wishing to become forensic doctors must undergo a rigorous training and selection process. Successful applicants have a six-month rotation in each of the six forensic units, where they gain practical and academic experience. Practitioners are familiar with relevant standards of best practice, including the Minnesota Protocol. Every semester, the forensic trainees must prepare an article for submission to the legal medicine journal of Costa Rica. To graduate, residents must also complete and present research on an innovative topic.²²

57. The Government of Chile restructured its Forensic Medical Service in 2006, following a public scandal concerning the misidentification of the bodies of victims of enforced disappearances. As part of the process, the Government convened an international group of forensic experts to oversee reforms consistent with the Minnesota Protocol, including laboratory accreditation, professional certification and practices ensuring transparency and accountability to families and the public.

58. In Colombia, the national institute of medico-legal and forensic sciences was restructured and modernized in the late 1990s, with assistance from Germany and the United States of America, in response to the sharp increase in crime in the country, including unlawful deaths. The reforms were carried out in compliance with standards of best practice, including the Minnesota Protocol. The institute offers advisory and capacity-building services to other medico-legal death investigation systems in the region, including on the implementation of the Protocol, and has developed valuable manuals and guidelines for forensic practitioners, including on the investigation of potentially unlawful deaths, torture and femicide.

59. The standardization of practice is an important aim of forensic medicine globally and nationally. The huge number of jurisdictions and variety of systems there led the National Research Council of the United States to say that the hodgepodge and multitude of systems and controlling statutes makes the standardization of performance difficult, if not

²² Franz Vega Zuniga, Lawrence Chacon Barquero and Kennette Villalobos Leon, "Legal medicine in Costa Rica: history, current affairs and future projection", *Medicina Legal de Costa Rica*, vol. 36, No. 2 (2019).

impossible.²³ Meanwhile, until 2000, there were several medico-legal institutes in Portugal. These were amalgamated into one autonomous service: the National Institute of Forensic Medicine and Forensic Science, with 33 offices around the country. The amalgamation was accompanied by harmonized procedures, measures for ensuring quality assurance and control of services, reporting requirements, training curricula and an ethical framework, as recommended in the Minnesota Protocol.²⁴ The amalgamation was informed by recommendations from an international panel of senior forensic doctors from four countries, who carried out periodic visits to oversee the reforms.

60. In South Africa, in a 1959 law, it was prescribed that in all cases of alleged unnatural death, an examination must be undertaken by a medical practitioner. Importantly, discretion resided with the medical practitioner regarding whether any organ, tissue or fluid or any other substance or thing in the body should be examined. This allowed forensic doctors to investigate unnatural deaths howsoever they deemed necessary.²⁵ In a more recent law,²⁶ it is prescribed that only authorized medical practitioners (forensic doctors) may perform medico-legal examinations; forensic doctors may attend death scenes and obtain any information they consider relevant, including by questioning any person, obtaining medical histories, taking photographs, taking custody of evidentiary material (such as drug paraphernalia and medication) and performing post-mortems and autopsies and other investigations that they believe necessary. There are no legal restrictions on the number and nature of such special investigations and/or additional expertise which may be called upon.²⁷ This law enables South African forensic doctors to operate independently and collaboratively with others, as recommended by the Minnesota Protocol, hindered only by resource constraints. This legal framework, which has similarities with the medical examiner system operating in parts of the United States, could be usefully emulated elsewhere.

61. The structure of an organization can support or undermine its independence. Subordinating forensic medical services to the police, prosecutors or judges, or placing services in departments where they have little priority, is unlikely to promote independence. Providing an independent oversight body, such as a commission or board with a membership consisting of respected senior individuals from the health, justice, education and community sectors, can help to protect forensic medical services from improper pressure and empower them as independent entities. This type of structural protection exists in some contexts, as exemplified by medical examiner offices in the United States.

62. In some countries, such as Chile, medico-legal death investigations are conducted through a multidisciplinary approach, thus enabling investigators, including forensic doctors, to produce integrated reports on their findings, containing an authoritative interpretation of results, as recommended in the Minnesota Protocol.

63. Forensic medical services can make significant contributions to individual and public health. Genetic counselling and tissue donations can benefit the health of individuals. Public health has benefited enormously from changes in medical practice, improvements in occupational health and safety standards and the decline in deaths from traffic accidents. Many other innovations have resulted from the analysis of autopsy-derived data. Recent research from Africa on bodies undergoing forensic autopsy identified significant rates of otherwise undetected tuberculosis.²⁸

²³ Committee on Identifying the Needs of the Forensic Sciences Community and others, *Strengthening Forensic Science in the United States: A Path Forward* (Washington, D.C., 2009), p. 246.

²⁴ Duarte Nuno Vieira, “Forensic medicine and forensic sciences in Portugal”, *Bulletin of Legal Medicine*, vol. 14, No. 1 (April 2009).

²⁵ Gert Saayman, “Death investigation and forensic medicine in South Africa: historical perspectives, status quo, and quo vadis?”, *Academic Forensic Pathology*, vol. 10, Nos. 3–4 (2020).

²⁶ South Africa, National Health Act, 2003 (Act No. 61 of 2003): Regulations regarding the Rendering of Forensic Pathology Services, *Government Gazette*, No. 41524 (2018).

²⁷ Saayman, “Death investigation and forensic medicine in South Africa”.

²⁸ Luchenga Mucheleng’anga and others, “Incidental tuberculosis in sudden, unexpected, and violent deaths in the community Lusaka, Zambia: a descriptive forensic post-mortem examination study”, *International Journal of Infectious Diseases* (March 2022).

64. To maximize their quality and reliability, medico-legal death investigation systems also need to engage in scientific research. There are some medico-legal death investigation systems that have successfully adopted a virtuous cycle of service or forensic casework combined with teaching and research, each strengthening the other. The interplay of these three pillars helps to ensure a sustainable cohort of highly motivated forensic doctors and scientific staff, a good example of which is offered by the Ontario Forensic Pathology Services in Canada. The Services also offer training and assistance for research to other countries, including, for example, research into a novel neurodegenerative disease in Uganda that requires forensic medicine tools (especially autopsy and anatomical pathology) for its elucidation, treatment and prevention.²⁹

65. When forensic doctors are able to communicate with bereaved families, they can provide them with invaluable insight into what happened to their deceased relatives, and the forensic medical process is demystified. This helps to prevent miscommunication and may be conducive to families being more accepting of the results of death investigation findings. Some forensic medical services also employ counsellors and social workers to support grieving relatives. In addition, transparency with families and the public, as required by the Minnesota Protocol, is unsurprisingly known to have a positive impact on service delivery and is therefore being progressively incorporated into the practice of medico-legal death investigation systems in some countries.

66. As forensic medicine and other specialties involved in medico-legal death investigations comprise a relatively modest number of professionals in any one country, it is important to ensure that they avoid professional stagnation and isolation and engage with other professionals internationally. For example, an international association of black and ethnic minority forensic pathologists has recently formed a group on a messaging service, allowing its members to share information about scientific events, publications and training opportunities and enabling them to exchange views and consult one another on matters of particular professional interest to the group, including the impact of racial discrimination on such investigations. Such innovative developments are critical to the advancement of the field and must be fostered. Membership in regional and international forensic associations and other collaborative arrangements for international research, practice and training must also be encouraged, and participation therein enabled.

67. Forensic professional associations also help to counter and overcome the isolation that many forensic doctors and other specialists in the field may experience. The International Academy of Legal Medicine (founded in 1938) and the International Association of Forensic Sciences (founded in 1957) hold regular scientific meetings, thereby enabling the international exchange of information. More recently formed professional associations include the Indo-Pacific Association of Law Medicine and Science, the African Society of Forensic Medicine, the Islamic Countries Forensic Medicine Organization and the European Council of Legal Medicine. The European Council of Legal Medicine drafted a submission to the European Union of Medical Specialists, which resulted in the recognition of legal and forensic medicine as a specialty. The Council has developed various standards for Europe, including the Harmonisation of Medico-Legal Autopsy Rules 1999 (updated in 2014). These associations and networks play an increasingly important role in promoting best practices worldwide for the forensic investigation of human rights violations, including the Minnesota Protocol.

68. The African Society of Forensic Medicine, formed in 2010, was initially funded from Australian government sources.³⁰ It seeks better training opportunities, including international exchanges, and it seeks improved infrastructure for Africa. One of its aims is to develop a much-needed African college of forensic medicine and science to oversee specialized fellowship training in forensic medicine and science on the African continent.

²⁹ Michael Pollanen, Chief Forensic Pathologist, Ontario Forensic Pathology Services, in a personal communication to the Special Rapporteur.

³⁰ Stephen Cordner and Liz Manning, "Professional bodies: rest of the world", in *Encyclopaedia of Forensic and Legal Medicine*, 2nd ed., vol. 4, Jason Payne-James and Roger Byard, eds. (Elsevier, Amsterdam, 2016).

69. The Ibero-American Network of Legal Medicine and Forensic Science gathers policymakers from 21 countries. Launched in 2007, it fosters networking, develops good practice models and shares resources.³¹

70. The Asia Pacific Medico-Legal Agencies network has 25 member institutions from 21 Asia-Pacific nations with comparable aims and functions. Its website³² has a digital library containing various protocols and guidelines. More needs to be done to develop similar entities to strengthen medico-legal death investigation systems globally.

71. The Association of Latin American Forensic Anthropology, supported by the American Board of Forensic Anthropology in the United States, started as a grass-roots association and has developed into an accrediting body for forensic anthropology in South America. This unique development shows what is possible, and the concept could be replicated for forensic medicine.

72. The activities of the International Criminal Police Organization (INTERPOL) include facilitating international collaboration on the identification of disaster victims and helping affected regions to get support from forensic doctors and other identification specialists. Its Disaster Victim Identification guide revolutionized the approach to human identification in the 1980s and has remained the standard, especially for small to medium-sized disasters.³³ It has served as a basis for updating the section on forensic human identification of the Minnesota Protocol.

73. International opportunities for academic visits, exchanges and training, including fellowships, and continuing professional development, are essential and beneficial to forensic professionals involved in medico-legal death investigations, whether forensic doctors and other specialists, from well- and poorly resourced settings alike. A number of forensic medical institutes around the world facilitate such opportunities. Bilateral links, such as those between Sri Lankan forensic professionals and the Victorian Institute of Forensic Medicine in Australia, have graduated more than 25 new forensic doctors. A programme funded by the G. Raymond Chang Forensic Pathology Fellowship and offered by the University of Toronto, Canada, in cooperation with the University of the West Indies, Jamaica, has helped to develop forensic pathology capacity in Jamaica, including on the implementation of the Minnesota Protocol. Building on that programme, the University of the West Indies has become a training hub for Caribbean forensic doctors. Meanwhile, there is significant demand from African medical practitioners for the diploma of forensic medicine offered by the Colleges of Medicine of South Africa. The diploma programme can offer training in well-equipped facilities under the supervision of specialist forensic doctors. It also offers insight into the practicalities of its law that enables forensic doctors to function independently and which may serve as a reference for legislative reform in other countries.

74. International cooperation, including South-South and bilateral cooperation, including among NGOs, also plays a growingly important role in building medico-legal death investigation capacity, as exemplified in some Latin American countries. The Argentine Forensic Anthropology Team was formed by a group of students after the fall of the military dictatorship in 1983 to investigate cases of enforced disappearances and extrajudicial executions perpetrated by the military regime. Initially trained with support from the American Association for the Advancement of Science, it helped to pioneer the use of forensic anthropology in human rights investigations, in particular disappearances followed by unlawful deaths. The team, which contributed to the development of standards of forensic best practice, including a section of the Minnesota Protocol on the recovery and analysis of skeletal human remains, is active worldwide in offering advice and training to a variety of stakeholders involved in medico-legal death investigations. For example, in Africa, the team, with the support of ICRC, helped to establish the African School of Humanitarian Forensic Action.

75. The Argentine Forensic Anthropology Team is also a prominent example of what can be achieved by NGOs and community-based organizations. These initiatives are important

³¹ See <https://redforenseiberoamericana.org/> (at the time of writing, not yet fully populated).

³² See <http://theapmla.net>.

³³ See www.interpol.int/How-we-work/Forensics/Disaster-Victim-Identification-DVI.

and require external support to survive. The International Commission of Jurists also promotes the Minnesota Protocol,³⁴ offers specialized trainings in several regions and has developed a valuable user's manual.

76. ICRC is the first international organization to have acquired its own forensic capacity to support its humanitarian activities. It currently employs over 100 forensic experts worldwide, including for capacity-building to assist in the recovery and identification of those killed in armed conflicts and catastrophes. Some of the forensic training provided by ICRC is based on the Minnesota Protocol, and ICRC contributed to updating the Protocol. The International Commission on Missing Persons, today an intergovernmental organization, initially emerged as an NGO to assist in the identification of the missing in the former Yugoslavia, with a focus on DNA identification. It also assists in the location, recovery and identification of the missing, and endeavours to build forensic capacity to help to recover and identify those who disappeared or were killed in armed conflicts.

77. Innovation and creativity are often required in resource-constrained settings, in particular outlying areas, so as to achieve reliable outcomes in medico-legal death investigations. In Zambia, there is one fully qualified forensic doctor, based in the capital, Lusaka, and servicing the whole country. As a result, practice has developed to help to ensure that the specialist can intervene in death investigations in remote areas.³⁵ When a person has died in suspicious circumstances far from Lusaka, the body is buried for its protection while awaiting examination (a relatively effective means of body preservation in such circumstances) until the forensic doctor or one of three part-time doctors under his supervision can attend. Under their supervision, the body is exhumed and an autopsy conducted at the site, with as much respect as possible for applicable standards.

IV. Conclusion

78. In 1902, Professor Harvey Littlejohn, a forensic doctor from Edinburgh, United Kingdom of Great Britain and Northern Ireland, gave a speech, part of which is worth quoting:

It would be ludicrous if it were not such a serious matter to reflect that in this advanced age and in an enlightened and humane country the law still permits any medical practitioner to be summoned to make a post-mortem examination³⁶ without any regard to his knowledge, his previous experience, or his capacity to fill the duty thus imposed upon him. In other words, while we all when ill try to obtain the best advice, seek the man who by devoting himself to special study has best qualified himself in a particular branch of medicine in order to treat our case, or to operate upon us, any medical man, no matter what is his qualification or his experience, is good enough when the question for decision is merely one affecting the liberty, or it may be the life, of another, although the points at issue are no less difficult to decide and require equally for their elucidation special study and experience.³⁷

79. If this observation was pertinent in 1902, it is only more so today – and there are many more issues outlined in the present report that require remedy. Medico-legal death investigations, including forensic medicine, require little investment from States and the international community, and can achieve significant outcomes in justice and public health, compared with the overall investment in both areas. It is possible to provide communities with medico-legal death investigation systems that are prompt, effective, thorough, independent, impartial and transparent, and staffed by competent professionals who work in conditions that enable them to determine the identity of

³⁴ International Commission of Jurists, *The Investigation and Prosecution of Potentially Unlawful Death: Practitioners' Guide*, No. 14 (Geneva, 2019).

³⁵ Luchenga Mucheleng'anga and others, "Forensic exhumations and autopsies in Zambia, Africa", *Forensic Science International: Reports*, vol. 4 (November 2021).

³⁶ I.e. autopsy.

³⁷ Harvey Littlejohn, "Medico-legal post-mortem examinations", *The Lancet*, vol. 161, No. 4152, March 1903 (paper read before the Medico-legal Society on 9 December 1902).

persons whose deaths may have been unlawful, and the cause and manner of their deaths; all that is required is the will to do so. The Special Rapporteur stands ready to assist in this endeavour.

V. Recommendations

States

80. The duty of States to investigate the cause and manner of any potentially unlawful death promptly, thoroughly, effectively, independently, impartially and transparently is integral to the right to life. The duty to investigate applies to all potentially unlawful deaths without distinction of any kind. States should ensure that medico-legal death investigations are conducted according to the principles and standards set out in the Minnesota Protocol on the Investigation of Potentially Unlawful Death.

Independence of medico-legal death investigations

81. States should protect professionalism, safeguard reliability and promote public confidence in investigations into all potentially unlawful deaths by ensuring that medico-legal death investigation systems are fully independent. Models of best practice exist to help to guide the legislative, institutional and other reforms required in this regard.

82. States should ensure that the laws governing medico-legal death investigations are up to date and reflect applicable international standards, including those set out in the Minnesota Protocol. The law should delineate the duties and functions of forensic doctors in a way that enables them to give full expression to their professional skills, in compliance with international standards and in the best interest of reliable investigations, without undue pressure or conditions.

83. States should protect the professionals involved in medico-legal death investigations from improper pressure and influence. One way that this might be achieved is by providing legal personhood to forensic medical, clinical and scientific services in the form of a statutory commission or authority. This approach can promote independence. Such an entity could assist in bringing the needs of forensic medical, clinical and scientific services to the attention of government and other relevant authorities.

Human identification

84. States should ensure that all potentially unlawful deaths are investigated, regardless of whether the deceased has been identified or not, and that medico-legal death investigations include the duty to identify the deceased, as prescribed in the Minnesota Protocol.

85. Until identified, human remains are missing people. They may correspond to victims of enforced or involuntary disappearances. States should ensure that all possible steps are taken to identify dead bodies or human remains examined in medico-legal death investigations. When identification is not possible at the time of the investigation, procedures should be put in place to help with future identification. Accordingly, unidentified and unclaimed bodies should be adequately documented and respectfully protected. Unidentified bodies must not be cremated or buried in mass graves where the knowledge of their whereabouts may be lost.

Medico-legal death investigation practice

86. States should ensure that medico-legal death investigation systems are adequately resourced and staffed in order to comply with standards of best practice, including as set out in the Minnesota Protocol, and that they can achieve the widest

possible public benefit to the promotion and protection of human rights, justice and public health.

87. States should ensure that their medico-legal death investigation systems operate at the highest possible standard, including through the implementation of quality assurance management processes, such as peer review, certification and accreditation systems.

88. When undertaking reviews of the structure and functions of existing medico-legal death investigation systems, States should consider involving external experts of reputable professional trajectories and moral standing who are able to provide informed, independent and unbiased opinions and recommendations.

89. Medico-legal death investigations should be allowed and required to operate with due diligence, particularly in every case of potentially unlawful death. In that regard, forensic doctors and other professionals should be allowed to collect any evidence deemed potentially relevant to such investigations. They should be allowed to communicate with the relatives of the deceased and relevant witnesses and should be able to order any tests that they deem necessary for the investigation. The forensic doctor's opinion on whether an autopsy or post-mortem investigation is required should be sought and, where possible, respected. This decision should be based on investigative information in the possession of the forensic doctor as a result of attendance at the scene, examination of scene photographs and/or external examination of the body, or other enquiries conducted by the forensic doctor to assist with taking such a decision. Any dissent with the forensic doctor's decision should be justified and duly documented. There should be no impediments to the forensic doctor's access to the information necessary for determining the identity of the deceased and the cause and manner of death.

Families and next of kin

90. Medico-legal death investigations are a State responsibility. Families of the deceased should not pay their costs.

91. States should ensure that legal, procedural and administrative mechanisms are in place to ensure that the bereaved are provided with adequate information about a family member who has died by a forensic doctor who is able to expertly explain the content of the autopsy and its outcomes, as set forth in the Minnesota Protocol. Close relatives of the deceased must be allowed to participate effectively in and contribute to the investigation, without compromising the investigation's integrity, including being afforded representation during the autopsy.

92. Bereaved families and next of kin should be informed in a timely and appropriate manner about the identity of the deceased, the investigation, its progress and its findings.

93. The right of families to dispose of the bodies or human remains of their loved ones according to their beliefs should be respected.

94. Bereaved families and next of kin should be protected from any threat resulting from their participation in the investigation.

Gender perspective

95. Forensic doctors and other professionals responsible for investigating potentially unlawful deaths should be aware of and sensitive to gender issues that may have an impact on the quality of their work, the reliability of their findings and their interaction with victims. Training on the forensic investigation and documentation of gender violence, including femicide, should be promoted, supported and provided to practitioners as a matter of priority.

Working conditions of staff involved in medico-legal death investigations

96. States must protect the security and the occupational health and safety of forensic doctors and scientific and technical support staff involved in medico-legal death investigations and of their families.

97. States should ensure that forensic doctors and other staff involved in medico-legal death investigations have access to properly equipped forensic medical facilities that are fit for purpose. At a minimum, these facilities must have access to adequate electricity, running water, refrigeration and ventilation and hospital-level cleanliness. Facilities should have a separate entrance and admission area for the public, showers for staff, office space and a space for meeting with families.

98. Forensic doctors are medical specialists. States should ensure that forensic doctors are paid wages that are at least commensurate with other specialist doctors of their same level.

Specialist services

99. Where such services are available, States should ensure that forensic doctors and other professionals responsible for medico-legal death investigations have access to specialist services, such as: forensic anthropology, forensic odontology, neuropathology, histology, toxicology, microbiology, biochemistry, entomology, ballistics and analysis of firearms, DNA, fingerprints, firearms, hairs and fibres, and bloodstain patterns. Radiological services, especially CT scans, may add to information available from autopsies.

100. Access to specialist services, while essential for forensic medicine and medico-legal death investigations, should be viewed in the broader context of the governance of forensic science and forensic medicine within a country and the need to ensure cost-effective, sustainable and independent services. The ultimate decision is very much dependent on countries' governance structures and the availability of often-scarce resources. International cooperation, including assistance from specialized agencies, such as UNODC, should also be considered.

Education and research

101. The findings of doctors without the specialized education and training required to investigate potentially unlawful deaths are likely to be unreliable and, thus, may ultimately contribute to impunity for perpetrators liable for unlawful deaths. States should therefore mandate that only doctors who have the requisite education, training and certification are authorized to conduct autopsies. This mandate should be instituted progressively and over a suitable time frame in order to ensure that it does not result in a backlog of cases.

102. States should ensure that medical schools or postgraduate medical training institutions develop postgraduate education, research and continuing training programmes in forensic medicine in close collaboration with forensic medical services to help to ensure that trainees benefit from practical experience and research opportunities in their education.

103. As forensic medicine and other specialities required for medico-legal death investigations are relatively small disciplines, and given that many States lack dedicated academic departments or training institutes, regional or other international solutions should be envisaged and supported by the international community. Such solutions must include significant periods of directly supervised training in forensic casework and applied scientific research related to death investigations, including on the implementation of relevant standard, such as the Minnesota Protocol. To the extent that online learning opportunities might be useful, they should be used and promoted.

104. States should foster medico-legal death investigation systems that operate within a reinforcing cycle of forensic service or casework combined with teaching and research. Such a cycle helps to sustain the supply of qualified and motivated forensic doctors and scientific staff.

Deregulation and privatization

105. The duty to investigate potentially unlawful deaths is integral to the States' duty to protect the right to life. States are accountable for the independent, impartial and transparent delivery of competent, prompt and reliable medico-legal death investigations. The deregulation and privatization of such investigations may result in the failure to reliably investigate unlawful deaths. Measures must be put in place to effectively prevent such failure.

International cooperation

106. States and the international community should promote and support international cooperation, including South-South cooperation, with a view to strengthening medico-legal death investigations and increasing the awareness and implementation of applicable international standards, including the Principles on the Effective Prevention and Investigation of Extra-legal, Arbitrary and Summary Executions and the Minnesota Protocol.

United Nations

107. OHCHR should consider acquiring in-house forensic medicine capacity to support its activities, including for the promotion and implementation of standards, such as the Principles and the Minnesota Protocol. Its aims in acquiring such capacity could include deploying its own experts to support the work of the United Nations human rights mechanisms, OHCHR and States investigating human rights violations or requiring advice or technical assistance on such matters, including for capacity-building.

108. In its 2007 updated report on human rights and forensic science ([A/HRC/4/103](#)), OHCHR recognized that its forensic capacity remained limited and recommended that it be strengthened.

109. Strengthening the forensic capacity of OHCHR could significantly improve its ability to provide prompt and high-quality forensic support and advice, including the following activities:

- (a) Assisting United Nations human rights mechanisms and the Office's field operations in their investigations of human rights violations, such as unlawful killings, torture and gender-based violence, including for rapid deployment programmes;
- (b) Training of relevant personnel, including the Office's field staff, on the principles and applications of forensic science and the implementation of relevant standards, including the Minnesota Protocol;
- (c) Drafting guidelines and manuals for different types of users;
- (d) Developing technical assistance modules for States on forensic matters, including the documentation and investigation of human rights violations;
- (e) Building strong networks of forensic experts and institutions available to assist around the world in the activities of the Office and other United Nations system entities in protecting and promoting human rights;
- (f) Optimizing terms of reference for hiring forensic experts in an agile and efficient manner;
- (g) Providing advice and assistance for the forensic analysis of complex cases;
- (h) Developing quality assurance and control protocols for forensic services engaged by the Office.

110. The United Nations, in particular UNODC, the World Health Organization, the United Nations Development Programme and OHCHR, should increase technical assistance to Member States in medico-legal death investigations through the

development of technical standards, the provision of training and equipment, legislative assistance and support for regional networks, and institution-building.

111. UNODC should consider addressing the relationship between the police, prosecution and forensic medicine in programmes supporting the rule of law and criminal justice reform and in assistance focused on criminal investigations, in line with the Principles and the Minnesota Protocol.

Private donors

112. Donor organizations should consider providing funding and other support to improve the forensic medicine capabilities of low- and middle-income countries. Support is particularly required for the development of specialized education programmes in forensic medicine, including options such as fellowships of 12 months or more in countries where such programmes and training opportunities already exist. Support is also required for the design and establishment of adequate forensic facilities and for the provision of technical advice on service structure and delivery. Donors might also consider supporting regional organizations, medico-legal death investigation institutions and universities.

113. Opportunities for fellowships and significant periods of supervised education and training at reputable centres must be created and supported. States with the ability to do so should host such fellowships.

Medico-legal death investigation institutions and academia

114. Medico-legal death investigation institutions should create working environments, policies and operating procedures that enable investigations to be carried out ethically, in accordance with the Minnesota Protocol.

115. All medico-legal death investigation actors need to engage in multidisciplinary training to understand the roles, mandates, contributions and limitations of each medico-legal death investigation service so that the best outcome can be systematically provided to victims, families and communities, as required by international standards, including the Principles and the Minnesota Protocol.

116. Medico-legal death investigation institutions should consider sharing documents, perhaps through regional forensic associations, that detail their protocols and standard operating procedures. Regional associations should consider identifying best practices and promoting them.

117. Medico-legal death investigation institutions and universities with self-sustaining forensic medicine programmes should consider developing training programmes that may be useful for forensic doctors and other forensic professionals involved in such investigations from countries sharing a similar death investigation systems. Well-regarded programmes should serve as benchmarks to ensure the maintenance of standards.

118. Medico-legal death investigation institutions should sensitize and/or provide training to the judiciary, prosecutors and the police about the role and contribution of forensic medicine actors.

General

119. Human rights mechanisms, including national, regional and international mechanisms, should emphasize the need for comprehensive investigations into all potentially unlawful deaths, in accordance with the Principles and the Minnesota Protocol, and the role that forensic capacity and medico-legal death investigations systems that are established in accordance with the Principles and the Protocol can play in the implementation thereof. The Special Rapporteur on extrajudicial, summary or arbitrary executions stands ready to offer advice on the implementation of the recommendations contained in the present report.
