DISASTER RISK REDUCTION PERSPECTIVES IN HEALTH SERVICE DELIVERY IN SOUTH AFRICA

Roshilla Sahadeo University of KwaZulu-Natal, South Africa <u>roshilla1@icloud.com</u>

Mogie Subban University of KwaZulu-Natal, South Africa <u>subbanm@ukzn.ac.za</u>

Abstract

Health service delivery is susceptible to a spate of disasters. It stands to reason that Disaster Risk Reduction theorised in the paper, would prevent the destructive effects of natural or man-made disasters, and address overwhelming demands for primary and quality health care. Disaster planning and response within the health sector is important in promoting an efficient, effective and economical service delivery. The paper locates the discussion within the Department of Health in general, with a brief discussion on global impacts on health. Typologies of health challenges include a lack of integrated planning, disasters and risks are not a priority in management's agenda, and a reactive approach is adopted. The authors advocate a multiactivities and cooperative interaction from disciplinary all stakeholders. Responsibility rests on a well-integrated Disaster Risk Reduction framework for use in the health districts and the health sector overall. This paper is a contribution to contemporary perspectives in relation to current trends and issues relating to disaster risk reduction. The intention is to expand attention of disaster risk reduction and management for health from that of response and recovery to a more proactive approach accentuating preparedness and mitigation (health risk management). It concludes that robust health systems inclusive of Primary Health Care can initially lessen fundamental vulnerability; thereafter, protect health facilities and services; and finally scale-up response to meet the comprehensive health needs during disastrous incidents making disaster risk reduction a strategic initiative. The paper therefore, emphasises

disaster risk reduction to address risks in health service delivery, and to plan for potential vulnerabilities as non-negotiables.

Key Words: Disaster Risk Reduction, Health Service Delivery, Health Care, Proactive Approach, Response

JEL Classification: I 18

1. INTRODUCTION

Disaster planning, testing, and response within the health sector and in promoting an efficient, effective and economical health service multi-disciplinary delivery involves activities that requires cooperative interaction from all stakeholders concerned, both internally and externally. Discussion in the paper is a contribution to contemporary perspectives in relation to current trends and issues relating to disaster risk reduction. This paper argues the obligation to ensure an operative and multi-faceted Disaster Risk Reduction (DRR) system and for proactive use in the district. Implementation of such an initiative would involve advancement and teaching of the health personnel for DRR practice and advocacy, and to involve the local community through their representation on hospital boards and clinic committees. The intention is to improve their ability, and to speedily render correct and reliable evidence to the community in a socially acceptable manner. Authors Nelson, Lurie, Wasserman, Zawowski and Leuschner (2008: 11) place emphasis on the need for development and maintenance of government health personnel that have the expertise and abilities to execute their duties efficiently in a disaster environment.

1.1 *Locus* of disaster risk reduction for health service delivery

The intention for the Department of Health (DoH) is to ascertain deeper insights into DRR within the district. The need arises then for the department to examine the current DRR preparedness plan with respect to its comprehensiveness and integration with all key stakeholders in relation to health service delivery. Monitoring and evaluation of the DRR plan and actions in health care are fundamental to addressing risk reduction. The health sector must consider the

integration of DRR into the health strategic plan for service delivery and management agenda for discussion, input and review by health management teams.

The authors advocate that specifically, disaster planning, testing and response within the health sector in promoting an efficient, effective and economical health service delivery involves multi-disciplinary activities and cooperative interaction from all stakeholders concerned, both internally and externally. It is important then to review the current DRR systems that are in place to prevent impediments in health service delivery, and addresses the integration of DRR plans for improvement thereof. Discussion in this paper is against the ongoing fiscal constraints evident in the DoH regarding Estimates of Provincial Revenue and Expenditure (2015-16, 323) and limited human resources as a case in point. The Health Districts are in the forefront of several health challenges and as a result of a lack of integrated planning, disasters and risks are not a priority in management's agenda, and generally, a reactive approach is adopted to disasters that unfold. The DRR status in the Health Districts should be aimed at preventing the disparaging consequences of natural or man-made disasters within the district's health system. It also requires the necessary capabilities to meet the overwhelming demands for primary and quality health care.

1.2 Background to Health Care vis-à-vis Disaster Management

The health sector is exposed to a comprehensive and diverse extent of natural and man-made disasters. According to a report (Government of South Africa, 2011), following the flood disaster, the Department of Health had an influx of 167 airlifted patients in the Northern Cape town of Upington. Mobile clinics had to be erected as roads were inaccessible due to the flooding. Chronic medication had to be dispatched at community level and ongoing health education was provided to prevent disease outbreaks such as diarrhoea.

The DoH Strategic Plan for the period 2014/15-2018/19 is guided by Section 27 of The Constitution of the Republic of South Africa, 1996 that asserts, *"Everyone has the right to equality, including access to*

health care services". It is therefore, imperative that the DoH take into account the applicable legislative and additional actions, contained by its existing means, to attain advanced recognition of this significant right. Hence, resource-related consequences of such disasters and its subsequent impacts on health service delivery bring DDR to the top of the agenda during strategic planning and service delivery improvement initiatives in health care in the country at present. Authors Abbas and Routray (2013: 118) emphasise the value of uninterrupted delivery of health care services during a disaster as a key strategic objective, including ensuring the safety of health care facilities as a focal component.

Although health care facilities are frequently affected by disasters, Macrae (2014: 440) asserts that there are inexcusable failures in the provision of health care. The investigations and inquiries frequently relate to a series of early warnings and poor disaster planning and preparedness that were missed, misunderstood or overlooked by the health care workers and health institutions tasked with monitoring the provision and quality of care. There is a challenge in deciding on the amount of time, resources and efforts that ought to be expended in preparing for an event that may not ensue. This has the potential for creating a situation where people are either too self-assured in their capability to cope with disasters or become so apathetic that they disregard essential precautionary measures in DRR. According to Anyangwe (2014: 1), "in 2012, most of the nations in Sub-Saharan Africa were affected by a disaster, involving masses of citizens, causing displacements and disease with resultant morbidity and mortality of many". The author further stated that in *lieu* of the extent, strength and recurring description of these disasters, it was apparent that states in Africa were not exploiting experiences from previous disasters, and that insufficient consideration had been given to plan for, react to and alleviate the consequences of disasters. It is in this context, that the Disaster Management Act, 2002 (Act No. 57 of 2002) demands for the creation of strategies, structures, policies, processes and activities that is crosscutting along all state departments at all levels. Hence, compliance to the tenets of this pertinent Act within the health sector will allow for continued service delivery during a disaster.

1.3 Status quo within Health Service Delivery

Disasters and diseases frequently result in substantial impacts and are detrimental on an individual's health, well-being including the possibility and impact of the loss of lives. It can therefore, be said, that emerging threats expose the challenges for the management of medical threats and outcomes of disease and disasters. Mortalities, morbidities, illnesses, incapacities, psycho-social crises and related health effects can be negated or decreased by DRR actions encompassing health and related sector departments. The conventional emphasis of the health department has been on the reaction to disaster situations. The current contest is to expand the attention of DRR administration for health from that of a reactive and recovery approach to a more pre-emptive slant, which accentuates preparedness and extenuation. Emphasis is also on the development of community and health care facility capabilities to render prompt and effective response and recovery with minimal or no interruption of health service delivery. Robust health systems inclusive of Primary Health Care (PHC) can initially, lessen fundamental vulnerability; thereafter, safeguard health institutions and service delivery; and *finally*, increase the reaction to link comprehensive health needs during a disastrous incident (World Health Organization, Health Districts are responsible for the development and 2011). implementation of DRR plans to guarantee continuousness of health service delivery during a disaster. Furthermore, the Constitution of the Republic of South Africa, 1996 protects the rights of the citizens by making provisions for disaster management related service delivery issues that ought to be implemented by the government both operationally and strategically (South Africa, 1996: 148). It is. therefore, imperative for the DoH to revisit the approach to DRR (concentrating on a proactive methodology to disaster management and hazard identification) in order to obtain sustainable, healthier and safe communities. Transformation towards this methodology of DRR warrants the immediate attention of the health sector.

2. CONTEXTUALISING DISASTER RISK REDUCTION IN HEALTH SERVICE DELIVERY

2.1 Inter-relational aspects of public health and disasters

It is essential to differentiate a disaster from an emergency, as the health facilities within the Health Districts are affected by both calamities. According to the Working Paper by Nelson et al, (2008: 8), an emergency ensues when, the *routine* abilities of the health system, is likely, to be overwhelmed by a minor imminent event. The authors further emphasise that the more robust the underlying public health system is, the less probable it is to be overwhelmed. If public health facilities are able to execute their routine duties exceptionally well, they are unlikely to be overwhelmed and have better ability to cope through emergencies. It can therefore, be said that, "disasters can be described as significant interruptions in the operations of a society or community encompassing extensive mortality and infrastructural, social and morbidity, fiscal damages and consequences, surpassing the capability of the affected society or community to manage expending its own reserves" (United Nations Office for Disaster Risk Reduction, 2017).

It follows then that during a disaster, health institutions are regarded as essential as they are regarded as 'sanctuaries' where the affected seek support. Every disaster gives rise to health distresses irrespective of whether they have obvious impacts on the health facility. Hence, in the absence of proper continued health service delivery within the initial stages, the recuperation phase can be hindered, and the subsequent impact of the disaster heightened. Thus, strengthening DRR investment in the public health sector within the milieu of civic well-being would enhance the complete health structures functioning in any disaster. Syed (2008: 15) affirms that the public health objectives of disaster management are appropriately specified as listed hereunder:

(i) Avoid preventable disease, death, and fiscal cost ensuing directly from the disaster; and

(ii) Exclude disease, death, and fiscal cost directly attached to maladministration of disaster relief endeavours.

It stands to reason as Van Niekerk (2005: 117) asserts, that DRR as an action of all spheres of management links to a combined, multisectorial, multi-disciplinary methodology directed at decreasing the threats related to risks and susceptibility. The momentum for DRR, the increased cognizance and obligation of all participants, and the prospects from legislative, strategy and policy processes in strengthening DRR into the health sector ought to be harnessed. Spheres of representative government are answerable to the citizenry. The citizenry are at risk and subject to disasters by rendering appropriate reactions, such as physical and social extenuation as the effects of disasters inevitably extends beyond their immediate devastation, exacerbating poor socio-economic circumstances and ill-health as a consequence thereof.

2.2 Global Impact of Disasters on Service Delivery

Research in the field of DRR asserts that there is a surge in the occurrence of disasters recently on a global scale (Kabaka and Stoltenkamp, 2013: 1). There is a need for an urgent paradigm shift *from* response *to* prevention, including mitigation strategies in DRR. Both developed and developing countries suffer huge fiscal costs related to disaster management. Supplementing the need for financial support, different role-players in the community should collectively engage to discuss disaster risk and strategize for disaster preparedness and mitigation, as concluded by Chipangura, Van Niekerk and Van der Waldt (2017: 317) following a study on Disaster Risk Problem Framing in Zimbabwe.

The Millennium Development Goals declared in 2002 emphasized disaster threats as a significant constituent of the expansion phase that these threats required to be attended to by 2015 (UNDP, 2004). In this context, specifically, reference is made to the World Conference on Disaster Reduction held in Kobe-Hyogo (Japan) in 2005 and the announced Hyogo Framework for Action (HFA) 2005-2015 with distinct indicators towards effective DRR (Kobe Report: 2005).

Correspondingly significant, is the ISDR Disaster Risk Reduction Model (ISDR: 2005) that arose from the international evaluation of disaster reduction (ISDR: 2002) which offers a global outline for the execution of operative DRR. The Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework) is the initial key accord following the 2015 development agenda, which was endorsed by the UN General Assembly after the 2015 Third UN World Conference on Disaster Risk Reduction (WCDRR). This Framework is a 15 year proposed and voluntary contract that acknowledges the role of government as the principal part to decrease disaster threats. Obligation should be apportioned by relevant participants inclusive of local government, the private sector and other patrons. There ought to be a significant decline of disaster risk and mortality, living standards and health of persons and in the fiscal, physical, societal, cultural and environmental effects of people, commerce, communities and countries (Sendai Framework for Disaster Risk Reduction, 2015). Identifying the significance of health institutions during disasters, the World Health Organisation (WHO) and the United Nations International Strategy for Disaster Reduction (UNISDR) supported by the World Bank, committed the World Disaster Reduction Campaign 2008-2009 to the theme "Hospitals Safe from Disasters: Reduce Risk, Protect Health Facilities, Save lives". The HFA 2005-2015 also identifies the significance of healthcare institutions during disasters. It appeals for the inclusion of DRR preparation into the health service, with the advancement of ensuring health institutions are for all intense and purpose, protected from disasters.

In contextualising the delivery of public goods by government departments to the citizens of the country, health institutions through the DOH is expected to manage disasters, and their effects and ought to get it done correctly at the initial attempt, argues Rubin, (2004:1). This is the anticipation of the local community and the public at large that health facilities, especially hospitals that are always accessible to provide in all circumstances, including during disasters. The proclamation of the Disaster Management Act, 2002 (Act No 57 of 2002) was proclaimed as a unique period for disaster risk management in South Africa, submits Van Niekerk, (2006: 96) and Visser & Van Niekerk, (2009: 6). The Disaster Management Act, 2002 (Act No 57 of 2002) demands for the creation of policies, structures, strategies, actions and plans that are cross cutting through all government structures. This is achieved *via* multi-sectoral stakeholders through combined, multi-sectorial and integrated methodologies in the management of disasters in the country.

2.3 Theorizing Disaster Risk Reduction in Health Service Delivery

The World Health Organization (2011:2) contextualized DRR for Health under important dimensions of the following areas:

- Sustainable development in DRR: DRR and risk management has arisen as a fundamental component of sustainable development, and is deemed a crucial component of a safer world in the 21st Century and beyond;
- Health systems: Health systems comprise of public, private and non-governmental organizations, which function collectively to provide for the health district. Health care systems afford essential dimensions for DRR activities for health. Well-founded structures are habitually more robust and better prepared for disasters; and
- Multi-sectorial actions: To guard the health of the community throughout and subsequent to a disaster, the broader elements of health such as water, sanitation, security and social services also requires satisfactory attention.

The following legislative framework and guidelines contributes to disaster management and risk reduction with respect to health service delivery:

- The Disaster Management Act 57 of 2002 provides the support for the standardized implementation of DRR plans for the prevention and mitigation of disasters.
- The Hyogo Framework for Action (HFA) 2005-2015 directs that the preliminary argument for decreasing disaster risk rests in the awareness and identification of hazards and physical, social, economic and environmental weaknesses,

risk reduction planning. Emphasis is also on the fact that risks and susceptibilities are fluctuating in the immediate and extended periods, ensued by actions engaged based on that prior understanding (UNISDR, 2005).

• Post-2015 Framework for Disaster Risk Reduction: a plan to monitor progress – the discussions of the Rio+20 Conference identified that DRR is tackled through a transformed state of earnestness within a perspective of sustainable development and poverty obliteration. This calls for integration of strategies, policies, programs and resources at all levels. Additionally, it called for further inclusive strategies that integrate DRR into public and private entities, decisionmaking and risk planning (UNISDR, 2014).

Given the enormity, intensity and frequency of disasters impacting on service delivery, there is a need for a coalescence of all sectors in relation to health risk management amidst the recent legislative framework. In addressing the health challenges, it is advocated that multi-disciplinary activities and cooperative interaction from all stakeholders must be considered.

2.4 Health Risk Governance and Risk Reduction

The paper suggests the need for intensifying initiatives in developing and strengthening an effective and sustainable DRR for continued health service delivery through monitoring and evaluation in Health Districts. It is advocated that a change from the current *reactive response* to disasters to a *proactive approach* in health risk management be proposed. The authors propose that an integrated framework to DRR would be one that responds to the need for uninterrupted health service delivery amidst the cumulative occurrences of internal and external disaster threats currently within the health sector. A paradigm shift is therefore, put forward as follows: The current state of DRR is reflected as reactive focusing on response and recovery. The desired state of DRR is reflected as proactive focusing on preparedness and mitigation.

It follows then, that the concepts highlighted in the above proactive state of DRR, is also emphasized as key elements in disaster risk management, and are considered as vital in improving the capability of the health system and maintaining health service delivery. The health sector is continuously subjected to disasters and warrants interventions grounded on health risk analysis, is the view put forward by authors Kalambay, Manzila, Kasola, Olu and Nsenga, (2013: 2).

3. CONCLUSION

This dimension and focus to health risk management is fundamental to the existing plans and strategies revolving around DRR within the DoH. DoH's efforts in institutionalizing the Disaster Management Act 57 of 2002 at health facilities in the district in the current environment is noted. However, the need for continuous deployment of resources ought not to be compromised by constraints and potential disasters or possible risks. The authors concede that further research in health risk governance should be considered in an attempt to address early warning systems and mitigate against disasters in the health sector. It is therefore, submitted, that the integration of DRR in health service planning and delivery are mutually inclusive and inextricably linked to each other.

With due consideration of Van Niekerk's viewpoints, Nkabane and Nzimakwe (2017: 26) assert that in the management of disaster risks, there should be collaborative and inter-sectorial participation and efforts from the various spheres of government, as well as the use of indigenous knowledge in developing strategies for effective DRR. In the public health sector, it would be beneficial to engage the traditional health practitioners, clinic committee members, as well as hospital boards for a more comprehensive, community-oriented approach to DRR. Undoubtedly, an inclusive of PHC system can reduce fundamental vulnerability; thereafter, protect health facilities and services; and finally, scale-up the response to meet the comprehensive health needs during a disastrous incident making DRR a significant strategic initiative. Finally, it can be said that planning

for potential vulnerabilities are regarded as non-negotiables in relation to DRR and the health sector at large.

REFERENCES

Abbas, H.B and Routray, J.K. (2013). A semi-quantitative risk assessment model of primary health care service interruption during flood: Case study of Aroma locality, Kassala State of Sudan. *International Journal of Disaster Risk Reduction.* 6, 118-128.

Anyangwe, S. (2014). Ensuring the health of African communities affected by emergencies and disasters, through Disaster Risk Management for Health. Public Health Association of South Africa.

Chipangura, P., Van Niekerk, D. and Van Der Waldt, G. (2017). Disaster risk problem framing: Insights from societal perceptions in Zimbabwe. *International Journal of Disaster Risk Reduction*. 22, 317-324.

Department of Health Strategic Plan 2014/15-2017/18. Pretoria: Government Printer.

Department of Health Vote 7. *Estimates of Provincial Revenue and Expenditure*. 2015-2016. Government Printer.

(ISDR) International Strategy for Disaster Reduction. (2002). *Living with Risk:* A *Global Review* of *Disaster Reduction Initiatives*. Preliminary version. <u>http://www.unisdr.org/unisdr/Globalreport</u> [accessed 21 April 2017].

(ISDR) International Strategy for Disaster Reduction. (2005). Living with Risk: A Global Review of Disaster Reduction Initiatives. Future Challenges: A Common Vision for Disaster Risk Reduction. http://www.unisdr.org/dialogue [accessed 21 April 2017].

Kabaka, M. and Stoltenkamp, J. (2013). eLearning tools for Public Awareness Programme Education in Disaster Risk Management: Case Study of the City of Cape Town Disaster Risk Management INTERNATIONAL JOURNAL OF SOCIAL SCIENCES AND HUMANITY STUDIES Vol 9, No 2, 2017 ISSN: 1309-8063 (Online)

Centre. In Proceedings of the 8^{th} International Conference on *eLearning*. Ivala, E (ed).

Kalambay, K., Manzila, T.C., Kasolo, F.C., Olu, O. and Nsenga, N. (2013). Disaster risk management: A strategy for the health sector in the African Region. *African Health Monitor*. 2-8.

Kobe Report. (2005). Environmental Management and Disaster Reduction: Building a Multi-stakeholder Partnership. World Conference on Disaster Reduction. Japan, 18-22 January.

Macrae, C. (2014). Early warnings, weak signals and learning from healthcare disasters. *BMJ Quality & Safety*. 23, 440-445.

Nelson, C., Lurie, N., Wasserman, J., Zakowski, S. and Leuschner, K.J. (2008). Working Paper. *Conceptualizing and Defining Public Health Emergency Preparedness*. US Department of Health and Human Services. Rand Health.

Nkabane, N.P and Nzimakwe, T.I. (2017). Transcending the Divide between Indigenous and Scientific Knowledge in Disaster Risk Reduction. A Case of Harry Gwala District Municipality in South Africa. *African Journal of Public Affairs*. 9(7), 1-92.

Republic of South Africa. (1996). Constitution of the Republic of South Africa. Government Printer: Pretoria.

Republic of South Africa. (2002). *Disaster Management Act No.* 57. Government Gazette, 15 January 2003.

Rubin, J. N. (2004). *Recurring Pitfalls in Hospital Preparedness and Response*. Journal of Homeland Security. <u>http://www.homelandsecurity.org</u> [accessed 24th April 2017].

South Africa: Statement on the floods and rains causing a disaster in the province. (2011). <u>http://reliefweb.int/report/south-africa/south-africa-statement-floods-and-rains-causing-disaster-province</u> [accessed 26th May 2017].

Syed, M.H. 2008. *Encyclopaedia of Disaster Management*. Mumbai: Himalaya Books PVT.LTD, 1(1), 1-43.

(UNDP) United Nations Development Programme. (2004). A *Global Report: Reducing Disaster Risk* - A *Challenge for Development*. <u>http://www.undp.org/bcpr</u> [accessed 21 April 2017].

UNISDR United Nations Office for Disaster Risk Reduction. (2015). Sendai Framework for Disaster Risk Reduction. <u>http://www.unisdr.org/we/coordinate/sendai-framework</u> [accessed 07 October 2017].

United Nations International Strategy for Disaster Reduction. (2005). Hyogo Framework of Action 2005-2015: Building the Resilience of Nations and Communities to Disasters. Geneva: UNISDR.

United Nations International Strategy for Disaster Reduction. (2014). *Post 2015 Framework for Disaster Risk Reduction: a proposal for monitoring progress.* Geneva: UNISDR.

United Nations Office for Disaster Risk Reduction (UNISDR). (2017). PreventionWeb. <u>http://www.preventionweb.net/english/professional/terminology/v.ph</u> <u>p?id=475n</u> [accessed 20th April 2017].

United Nations World Conference on Disaster Risk Reduction. (2014). *Health and Disaster Risk. A contribution by the United Nations to the consultation leading to the Third World Conference on Disaster Risk Reduction (WCDRR).* Sendal: Japan.

Van Niekerk, D. (2005). *A Comprehensive Framework for Multisphere Disaster Risk Reduction in South Africa*. Doctoral thesis, North-West University, Potchefstroom.

Van Niekerk, D. (2006). Disaster risk management in South Africa: The function and activities – towards an integrated approach. *Journal* of the Department of Political Sciences and Public Administration, (Politeia), 25(2), 96-116.

INTERNATIONAL JOURNAL OF SOCIAL SCIENCES AND HUMANITY STUDIES Vol 9, No 2, 2017 ISSN: 1309-8063 (Online)

Visser, R. and Van Niekerk, D. (2009). *A funding model for disaster risk management functions of municipalities*. Version1. Report for South African National Disaster-Management Centre. Potchefstroom. African Centre for disaster Studies and Southern Business school. <u>http://www.ndmc.gov.za/Documents/CapacityBuildingandResearch/t</u> <u>abid/263/ctl/ViewDocument/mid/630/ItemID/65/Default.aspx</u> [accessed 24 April 2017]

World Health Organization Disaster Risk Management for Health Fact Sheets. Global Platform - May (2011). *Disaster Risk Management for Health Overview*. United Kingdom Health Protection Agency and partners.