# Chapter 14
# Health Information Systems, eHealth Strategy, and the Management of Health Records: The Quest to Transform South Africa's Public Health Sector

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## ABSTRACT

*South Africa's health sector faces two main transformation challenges: inequity and a legacy of fragmentation. This chapter traces the history of health policy development in the country in seven phases from the 17th century to the present time. It describes the efforts in transformation made through the promulgation of the National Health Act in 2003 and the eHealth Strategy in 2012. The chapter explores the utility of maturity assessment in assessing whether transformation goals through an analysis of five maturity models: Digital Preservation Capability maturity model, eHealth maturity model, Enterprise Content Management maturity model, Health Normative Standards Framework maturity model, and Records Management Capacity Assessment System. South Africa is already using two of the five models demonstrating that is not just reliant on technology but has developed strategies and principles to guide the transformation process. The chapter argues for more expansive adoption of maturity assessment to cover the full records lifecycle.*

## INTRODUCTION

This chapter explores the transformation of South Africa's health sector by examining health information management systems, the eHealth Strategy and the management of health records. A health record constitutes documentation of medical care provided by physicians as well as non-physician health practitioners and can either be hardcopy or electronic format (Galani & Nikiforou, 2006, p. 8). This chapter begins with a historical context to health policy developments in South Africa highlighting the key challenges

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for the transformation agenda. It then outlines the contributions of two documents, the National Health Act and the eHealth Strategy, in achieving a coordinated national health information system as part of the health sector's transformation path. From as early as the year 2000, the international community led by the United Nations and its agencies, the World Health Organization (WHO) and International Telecommunications Union (ITU) were urging countries to initiate and implement eHealth Strategies (Riazi, Jafarpour, & Bitaraf, 2014, p. 243). In 2010, the WHO Regional Committee for Africa adopted an eHealth resolution that "urged member states to promote, inter alia, national political commitment to and awareness of eHealth" (World Health Organization, 2010, p. 2). By the time South Africa produced its own eHealth strategy, a number of African countries had already produced theirs including: Kenya and Mauritius (Masilela, Foster, & Chetty, 2014, p. 16). There are lessons to be learnt from South Africa's experience by other African countries. Amongst these lessons are that the presence of a national health act and eHealth Strategy alone are not sufficient to address challenges in developing a national health information system. The chapter explores maturity models as one aspect that contributes to South Africa's transformation goals in the management of health records.

## HISTORICAL BACKGROUND

This section outlines the history of South African health sector and policy, the challenges of transforming the sector and the contributions towards this process from the implementation of Health Information Systems (HIS).

### Health Sector History

The history of the health sector in South Africa dates back long before the British occupation of the Cape in the early 19th century (Katuu, 2011; Laidler & Glefand, 1971). At present, South African health care is characterised by its mixed and pluralistic flavour. This pluralism had its origins in the early Western settlements period and was expanded and consolidated during the subsequent colonial period. According to Van Rensburg (2004, pp. 68-69), it started specifically with the importation of ships' surgeons from the 17th century. The pioneer was surgeon Jan van Riebeeck who founded the settlement at Cape of Good Hope or now known as Cape Town in 1652 (Bruijn, 2009, p. 85). This was followed in subsequent decades and centuries with the establishment of private practitioners among free burghers (who were independent famers that supplied fresh produce to passing ships) as well as the expanding settlements (Ward, 2015). Later saw the appointment of district surgeons, resident doctors and a growing corps of medical officialdom (Van Rensburg, Fourie, & Pretorius, 1992, p. 54). Hospitals and other types of health care facilities were first established *to cater for company officials* and for some time had close military ties. Civilian and public hospitals were later developments (Van Rensburg, 2004, pp. 68-69).

### Health Policy History

The history of health policy in South Africa is intricately connected to the history of the country. In order to outline the development of the health sector, Van Rensburg and Harrison (1995, p. 95) provide six different periods of history based primarily on developments related to health policy and legislation. The first period is before 1919 when the first health legislation was promulgated for the Union of South

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