

Essential facts about

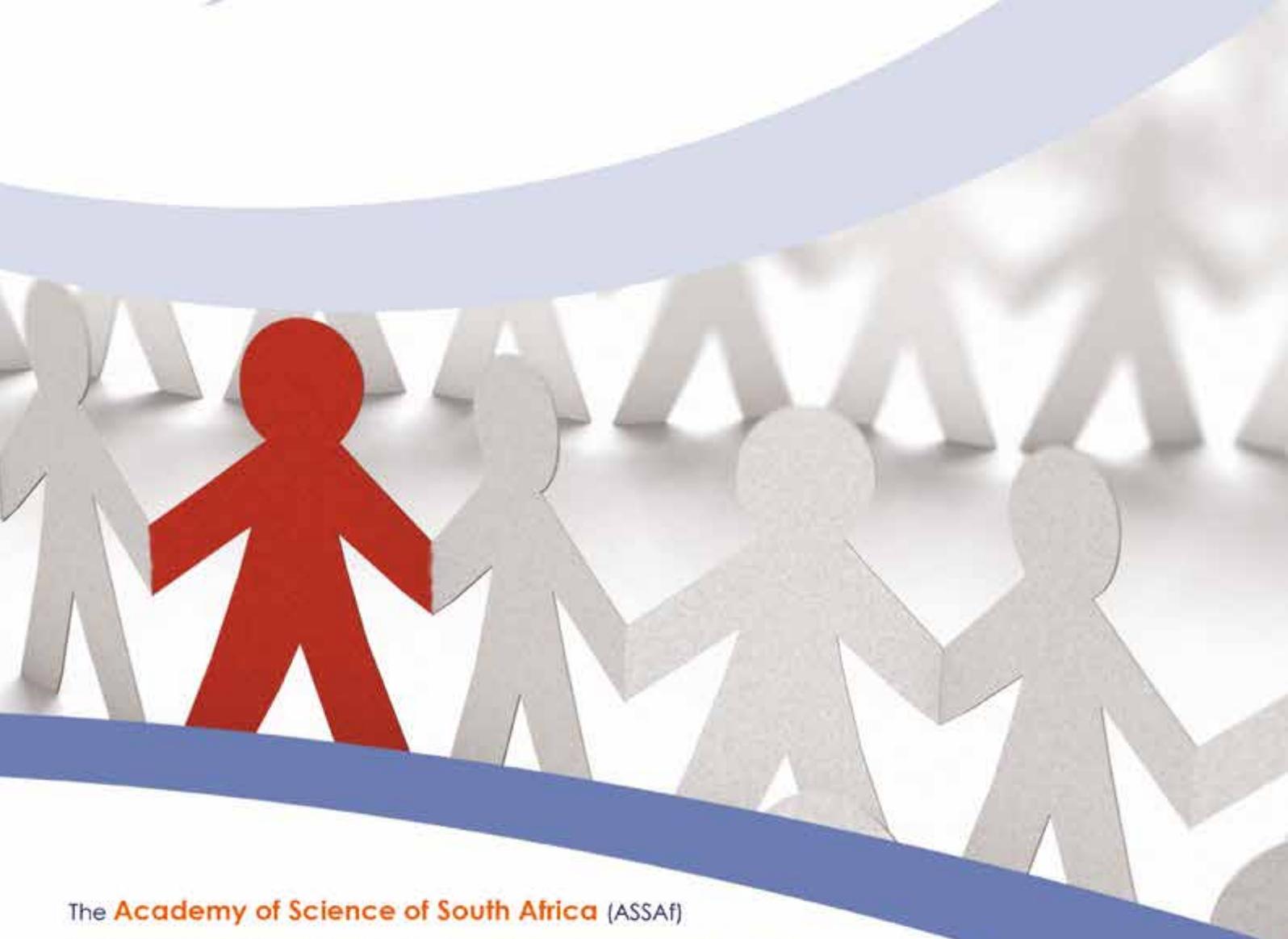
COVID-19

**The disease,
the responses and
an uncertain future**

**For South African Learners,
Teachers and
the General Public**



Commissioned by the Academy of Science of South Africa (ASSAf)



The **Academy of Science of South Africa** (ASSAf)

was inaugurated in May 1996. It was formed in response to the need for an Academy of Science consonant with the dawn of democracy in South Africa:

activist in its mission of using science and scholarship for the **benefit of society**, with a mandate encompassing all scholarly disciplines that use an **open-minded** and **evidence-based** approach to build **knowledge**. ASSAf thus adopted in its name the term 'science' in the singular as reflecting a common way of enquiring rather than an aggregation of different disciplines. Its Members are elected on the basis of a combination of two principal criteria, **academic excellence** and **significant contributions to society**.

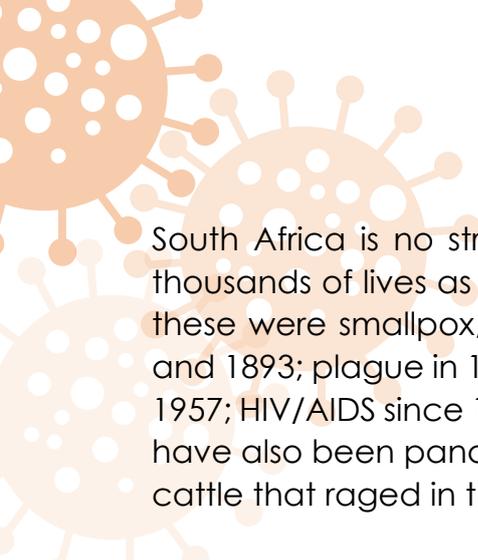
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CHAPTER 2

Infectious Diseases in South African History

Pandemics are not new to South Africa. Our country has experienced several pandemics that have swept the world in modern history, affecting humans and animals, examples of which are given below. The pandemic before Covid-19 freshest in our minds is HIV-AIDS, which, even though it was worldwide, hit sub-Saharan Africa the hardest, with KwaZulu-Natal recording the highest numbers in the region. It is worth remembering that attempts to find a preventive vaccine failed, but medication in the form of antiretrovirals helped sufferers lead normal lives.





South Africa is no stranger to dire pandemics, which have claimed hundreds of thousands of lives as they have rampaged through the sub-continent. The worst of these were smallpox, which hit the region in eight recurrent waves between 1713 and 1893; plague in 1901-1904; the so-called 'Spanish' flu in 1918-1919; polio in 1944-1957; HIV/AIDS since 1982 and still widespread today; and, currently, Covid-19. There have also been pandemics affecting farm animals, such as the rinderpest amongst cattle that raged in the 1890s.

All of these pandemics arrived in southern Africa from outside, either by sea, land, rail, or air, and were then spread by the movement of infected individuals across the land. South Africa in particular has a long history of people on the move, whether sailors, soldiers, war refugees, trekkers, truckers, fortune-seekers, migrant workers, railway staff, religious pilgrims, or tourists. If infected, they often became witting or unwitting vectors, with some being asymptomatic, as often in the case of Covid-19.

These pandemics had a severe demographic effect on the size and make-up of the population. In the case of smallpox, the Khoekhoen population was decimated to the point of having their social structures and independent existence shattered for all time. A contemporary spoke of them dying "by hundreds, so that they lay everywhere along the roads as if massacred as they fled inland with kraals, huts, and cattle". Devastating were the 'Spanish' flu and AIDS pandemics, both being especially lethal to young adults who made up the core of the country's labour force and the parents of the next generation, who were thereby turned into orphans on a massive scale. The 'Spanish' flu claimed the lives of some 300,000 people (or 6% of the population) in six weeks, and AIDS has claimed 3.3 million lives in 30 years.

Pandemics have also fuelled existing negative trends and attitudes, most obviously in prompting stigmatisation and furthering racial segregation.

For both good and ill, these pandemics also accelerated processes and trends already apparent but not yet in full swing. For instance, they put urgency into the search for biomedical means to prevent or effectively treat such diseases so as to avoid their recurrence on such a disastrous scale. Thus, vaccination against smallpox was readily adopted by the colonial authorities at the Cape within less than a decade after its discovery in England in 1796. The country's first national public health system was created in 1919 in the wake of the 'Spanish' flu, after it had been under unproductive discussion for several years before this. A polio vaccine was already under development locally in the 1950s when the state-of-the-art American vaccine arrived and was successfully employed to all but remove polio as a threat. More recently, anti-retroviral therapy has been extensively rolled out as effective treatment for HIV after nearly a decade of AIDS denialism in the country's highest governmental circles.

But pandemics have also fuelled existing negative trends and attitudes, most obviously in prompting stigmatisation and furthering racial segregation. In the face of one pandemic after another, authorities argued that urban Africans should be moved to separate locations so as not to infect whites. This attitude produced their forced removal in 1901-1904 to newly-created urban locations, such as Ndabeni in Cape Town, New Brighton in Port Elizabeth, Ginsberg in King William's Town and Klipspruit (which became Soweto) in Johannesburg. Less than two decades later, the official response to the 'Spanish' flu saw even more segregated African locations created: Langa in Cape Town, Batho in Bloemfontein, and Western Native Township in Johannesburg. Such urban African locations became the model for the segregationist and apartheid South African state.



As indicated above, the role of pandemics in the shaping and operation of South African society is deep, wide and long-lasting. As we confront yet another pandemic in 2020, we need to be aware of its potential to cause lasting change across the board.

*Left: Polio physical therapy
Below: Iron lungs helping polio patients
Source: <https://commons.wikimedia.org>*



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The Parliament of South Africa passed the Academy of Science of South Africa Act (No 67 of 2001), which came into force on 15 May 2002. This made ASSAf the only academy of science in South Africa officially recognised by government and representing the country in the international community of science academies and elsewhere.

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