The word “odyssey” is defined in the Oxford Dictionary as “a long journey full of experiences.” I have served as Director, for almost 30 years, of the two institutes which have served as national and the regional centres of excellence for communicable diseases: from April 1976 to 2002 at the National Institute for Virology (NIV) and, since January 2002, the National Institute for Communicable Diseases (NICD). This may or may not be a directorship record, but it certainly has been a long journey. Unquestionably it has been filled with many experiences. It is from these experiences that I feel that I have gained a certain degree of knowledge and, dare I say it, wisdom which could provide some lessons of value to public health institutions serving similar functions to that of the NICD.

It hardly needs stating that the science of communicable diseases has changed dramatically over the past three decades. My own discipline of virology has seen a dream-age virology of evermore sophisticated molecular technologies largely replacing the steam-age virology of cell culture and complement fixation tests. In the public health arena, the achievements over these past decades has been nothing short of spectacular. Human ingenuity, dedication and vision has seen the formidable infectious disease of smallpox eradicated from the planet, poliomyelitis eliminated from most of the world and coming close to eradication, and indigenous measles eliminated from the western hemisphere.

Undoubtedly, three decades of directing these two institutes has been an immense privilege. The quote from Charles Dickens, “it was the best of times, it was the worst of times”, has some relevance, although it is not quite applicable to my experiences, as the “best” really far outweighed the “worst”. Why I need to make mention of the “worst” is because I feel that some valuable lessons could be learnt from these mistakes. In essence, they may be encapsulated in one word: “obstructionism”; both political and managerial. This obstructionism, to a significant extent, hamstrung the development of the NIV, and this became very apparent with the palpable relief felt with the birth of the NICD. The latter institution truly flourished under a new parent organisation, the National Health Laboratory Service (NHLS).

To illustrate what I have termed political obstructionism let me mention two examples. The first was the variola stock debacle. Following on the declaration of the eradication of smallpox in 1980, the World Health Organization (WHO) decided that only two countries in the world would retain stocks of variola virus, the USA and the USSR, both under tightly controlled and regularly inspected biosecurity standards.¹ In the early 1980s, South African science was severely handicapped as a result of the pariah status of the country and the NIV, in particular, suffered markedly from scientific isolation. The Department of Health of the day, however, refused to grant permission to the NIV to destroy its stocks of variola virus, presumably because Cuban troops, who were active at the time in the South Africa-Namibia-Angola war, were vaccinating their troops against smallpox. Despite urgent pleas from us as well as the global health community, including of course the WHO, the Department of Health remained steadfast. The WHO indeed came close to cutting off the last tenuous international contacts that the Institution was still holding onto. It was only later, in 1983, that the Department of Health finally relented and South Africa thus became the last country in the world to destroy its stocks of variola virus.²

A second, more recent example of political obstructionism was the compulsory involvement of the NIV in the human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) dissident debacle.³ Over and above the absurd debates with HIV dissidents, the NIV was instructed to carry out senseless laboratory “experiments” to test dissident claims of the existence of HIV! Thousands of valuable serum samples were collected for absorption “studies” to examine whether HIV positivity was the result of authentic HIV infection or merely cross-reacting antibodies from a variety of specified microorganisms. In a similar vein, the NIV was ordered to carry out senseless laboratory “experiments”⁴ to test dissident claims of the existence of HIV! The wastage in terms of human resources, reagents, test costs and demotivating energy was huge. Furthermore the international image and status of the Institute was certainly not enhanced by these activities.

The second kind of obstructionism, managerial obstructionism, was a direct result of the Department of Health’s insistence on micromanaging the NIV. The NIV was sited administratively under the Department of Health and was managed, indeed micromanaged, directly through an office of the Department of Health. Over and above the stifling bureaucracy of the civil service, the Institute was shackled by severe restrictions on international travel, the vetting process and the limitations on international travel, the vetting process and the limitations on
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Essentially, to my mind, this Institute has three main roles and responsibilities:

- Research and science: What this Institute is and what it should be will depend on the quality of its research and science. Biomedical science forms the core of the Institute, and it is this foundation which will support its service performance and its training capacity. It is imperative that it continues to produce good science.

- Public health: This is the reason for this Institute’s existence and its prime responsibility to the people of the country. Given the enormity of the contribution of communicable diseases to the burden of disease, especially in South Africa, the NICD has a responsibility of huge proportions.

- Capacity building: The Institute has to ensure its own future and that of similar organisations and bodies involved in communicable diseases in South Africa. The country has inherited a legacy of discrimination which has to be overcome, and the future of the Institute will rest on how successful it will be in the transformation of its staff complement.

Can the NICD and other similar public health bodies be defined as academic institutions? If so, a central component of its charter would need to be academic freedom. Academic freedom, as defined by the charter of Oxford University, includes “the freedom to conduct research, teach, speak and publish…without interference or penalty, wherever the search for truth and understanding may lead.” However, I do not think that a public health institution such as the NICD quite fits into this mould, because of its fundamental responsibility to the country’s healthcare needs. What I do believe is that it should be viewed as a hybrid of an academic institution and a public health facility.

How then are we to get the best of the Institute, in order for it to achieve its goals optimally and to provide the best value to the country’s people?

In this respect, I believe that there are three cardinal needs:

- Autonomy: This is a sensitive issue, and by autonomy I do not mean independence. Contextualised, this should read “qualified autonomy”. Qualified, because the Institute has responsibilities not only to science, but also to the health needs of the country and also to the needs of its parent organisation. However, what the Institute has seen so strikingly in its history is the harm that can come from straightjacketing managerial obstructionism and damaging political interference.

- Management support: There is nothing more frustrating to medical and scientific personnel than having to deal with administrative chores. While, of course, this cannot be totally eliminated, the burden of administration must be minimised by providing the professional body of the Institute with adequate managerial support, so that scientists can do what they are trained to do, what their inclination is to do, what they do best and lastly, what is most cost-effective.

- International contact: The history of the Institute has also strikingly illustrated how, by restricting international contacts, progress can be severely impeded. If this is important for science in general, it is even more important for public health. International travel is not a reward; it is essential for any scientific institution, particularly one responsible for public health. It is imperative not only for the value of the contacts and the networking which is established by these contacts, but also for the obvious learning value from these experiences. With regard to the latter, a balance must be sought between the capacity developmental needs of younger scientists and the requirement for the Institute to be optimally represented at international meetings and forums.

Conclusion

The NICD is a particularly valuable and precious asset to the country. Despite predictions a century ago that communicable diseases are on the wane because of vaccines and antibiotics, the converse has proven to be true. Few places have demonstrated this more starkly than South Africa. The NICD has now been established after a fairly long and not always smooth passage. It is now entering into a new phase in its development, which will hopefully see it play an even more valuable role in supporting the health needs of the country and the region.

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Bibliography