Chapter 12
Using Creativity, Diversity, and Iterative Ways of Working to Send the Virus to Lockdown:
How to Beat Wild-Card Events by Their Own Means

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ABSTRACT

The novel Covid-19 causing virus has caused major disruptions to individuals, societies, and economies worldwide. No single country has been left unaffected, and many societies have taken severe measures, including complete lockdowns of huge metropolitan areas, to limit the further spread of the virus. As a result, international trade and traveling have virtually come to a halt, enterprises struggle to survive, and both individuals and entire societies face an uncertain future. The Covid-19 pandemic thus represents a wild-card event that disrupts predictions of future developments and confronts researchers, policymakers, and decision-makers in organisations with a wicked problem. This chapter proposes that lateral collaboration, shorter iteration loops, and diversity will enable organisations to cope with future wild cards more effectively. Applying the same principles to research bears the potential to generate creative solutions to the wicked problem of pandemic disease control faster.

DOI: 10.4018/978-1-7998-2385-8.ch012

INTRODUCTION

The novel Covid-19 causing virus, first discovered in Chinese Wuhan in late 2019, has caused major disruptions to individuals' lives, societies, and economies worldwide. As of submission of this chapter, 12.5 million people have been infected, and over 500,000 have died. No single country has been left unaffected, and many societies have taken severe measures, including complete lockdowns of huge metropolitan areas, to limit the further spread of the virus. As a result of this, international trade and travelling have virtually come to a halt, enterprises struggle to survive, if they have not vanished yet, and both individuals and entire societies face an uncertain future. On the positive side, the lockdowns in many countries have resulted in a significant drop in global carbon emissions (Tollefson, 2020) and triggered discussions on what futures are desirable after the pandemic – both in industrialised and emerging countries.

The Covid-19 pandemic thus represents a wild-card event that disrupts predictions of future developments. It allows to tread new paths and think in new directions. Yet, before we can start designing the future we want and securing economic prosperity both in industrialised nations and the global South, we need to inhibit the further spread of the virus. Moreover, it is imperative to find ways to stop other biological hazards from disrupting the world in the same way in years to come.

Achieving this is complicated by the virus' fast evolution and effective adaptation to its environment, i.e. the human body. With many questions regarding the virus' characteristics and ways of propagation still open, governments and disease control centres struggle to formulate and impose response measures that flatten the curve of infections rather than that of economic progress. Biomedical research that provides the basis for any response action, however, is a lengthy process. These conflicting velocities – the fast evolution of the virus and the slower, but still rapid impact of measures like lockdowns on economies versus the gradual creation of knowledge through research – make the alignment of actors and institutions involved in disease control a wicked problem.

While this chapter does not aim to solve this wicked problem for the current Covid-19 pandemic, it makes suggestions for preparing for comparable virus outbreaks in the future.

BACKGROUND

As the year 2019 came to an end, reports in the Chinese province of Hubei began to surface, describing patients with pneumonia of an unknown origin. The only apparent link was a wet market in the city of Wuhan. Within less than two weeks Chinese authorities published the sequenced genome of the pathogen causing the disease which, in a significant number of cases, leads to severe respiratory distress. And like twice before within only one decade, it became clear that a virus, more precisely a β-Coronavirus, had crossed the species barrier to humans and turned into a pathogen with pandemic potential. Its two predecessors were SARS (Severe acute respiratory syndrome) and MERS (Middle East respiratory syndrome). Despite this stunningly quick analysis and the fast implementation of quarantine protocols across the People's Republic of China, one month later the first case outside of China was diagnosed. Two months later, the World Health Organisation (WHO) declared pandemic status and within the same month the death toll in Italy skyrocketed. Hospitals there were overwhelmed to the level that military units were deployed to transport the deceased.