RETURN TO A NEW NORMAL: ROYAL SOCIETY MEMBERS IDENTIFY KEY SOCIETAL CHALLENGES POSED BY COVID 19

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The Royal Society of Canada (RSC) is a community of outstanding scholars, artists and scientists from all fields of research and the arts. The membership is multigenerational, pan-Canadian, and internationally connected.

On April 2, 2020 the RSC launched a survey of members. Access to personal protective equipment (PPE) and other stories about the COVID-19 pandemic dominated Canadian media shortly before and during the duration of the survey. For example, news covered projections and cases of COVID-19 across Canada, population behaviours, testing and tracking cases, therapeutic and vaccine development, economic impacts, risks to vulnerable populations, and safety for essential workers.

The question posed was:

"In my view three of the most pressing societal challenges confronting Canada as it responds to and recovers from COVID-19 are: …".

The question was intended to summarise their thoughts and concerns, provide a sense of direction to be taken in light of this emergency, and took no more than 2-3 minutes to complete. Their responses reflect the exceptionally grave and complex societal challenges of the COVID-19 pandemic, including socio-economic, population and public health, biomedical, climate and governance challenges facing Canada and the world now during the emergency and in the post-pandemic future.

METHODS

A total of 343 responses to the survey were returned within 10 days, of which 293 were complete and usable. Hand coding using qualitative analysis resulted in six thematic categories across 746 coded items.

FINDINGS

Respondents (n=293) included 114 females and 173 males (6 unidentified) (Table 1). Of the 285 who provided their RSC Academy, 80 were New Scholars and 205 were fellows (39 in Arts and Humanities, 112 in Science, and 54 in Social Science). Respondents affiliations were with institutions located outside Canada (n=8), national institutions within Canada (n=9), and across most provinces (106 in Ontario, 65 in Quebec, 78 in the western provinces, and 19 in Atlantic Canada).

MEMBER CHARACTERISTICS		N=293
Gender	Female	114
	Male	173
	Unidentified	6
Academy	Arts and Humanities	39
	Science	112
	Social Science	54
	New Scholars	80
	Unidentified	8
Institutional Location	Canada	9
	Alberta	27
	British Columbia	38
	Manitoba	7
	New Brunswick	2
	Newfoundland and Labrador	3
	Nova Scotia	14
	Ontario	106
	Québec	65
	Saskatchewan	6
	Germany	1
	United Kingdom	3
	United States	5
	Unidentified	7

Thematic Categories

Respondents (n=293) provided a total of 746 individual items, which we coded under six broad thematic categories of societal challenges: Biomedical and bioscience (n=69, 9%), Population and public health (n=145, 20%), Social determinants of health (n=145, 19%), Political and economic concerns (n=153, 21%), Social and ethical issues (n=106, 14%), and Post-pandemic (n=128, 17%). Most respondents (n=252, 86%) provided insights relevant to multiple themes, reflecting the complex challenges. The theme of Post-pandemic (futures) included predictions and recommendations that speak to issues identified in the other themes.

COVID-19 Societal Challenges

69 (9%)
128 (17%)
145 (20%)
106 (14%)
145 (19%)
153 (21%)

■ Population and public health ■ Social determinants of health ■ Political and economic concerns
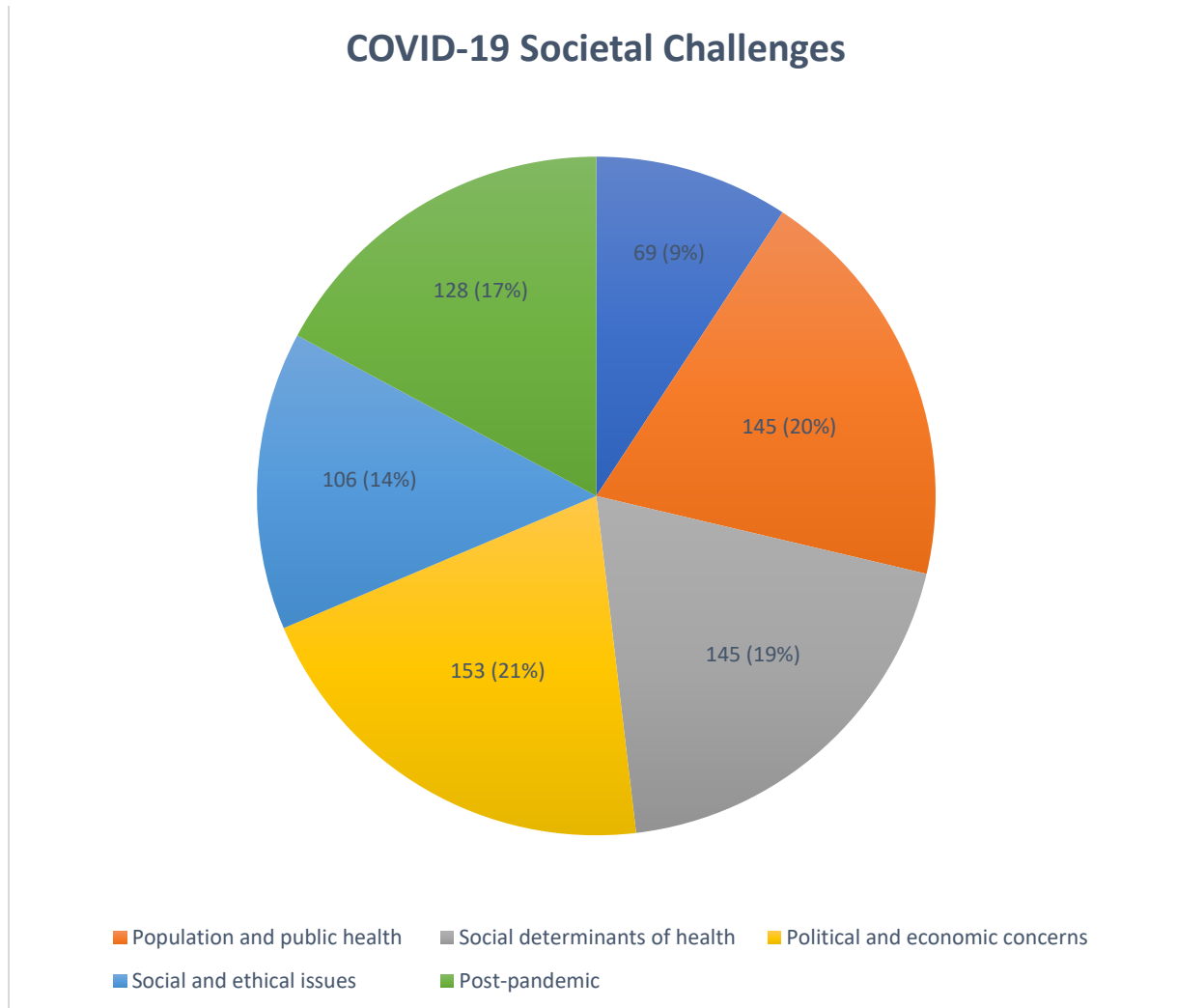■ Social and ethical issues ■ Post-pandemic

Figure 1: COVID-19 Societal Challenges

There is little doubt that the future is uncertain, but the responses were not. Challenges in the public health emergency response were identified and recommendations placed strong emphasis not only on the urgent need to develop new vaccines and therapeutics to address the pathogen, but on the principles of good governance established by Indigenous populations long before confederation and in the commonwealth 1867 Constitution Act of peace, order and good government. Concerns and suggestions also echo the largely forgotten principle of "welfare" in the 1840 Act of Union that created the Province of Canada to steward the well-being (welfare) of all Canadians. Members recognized that the closure of schools and non-essential businesses placed exceptional burden on Canadians. Concern was expressed for mental health during the public health practices of self isolation and social distancing that placed individuals and families in close enclosures while restricting their access to recreation, parks and services. The well-being of vulnerable populations was highlighted, along with structural inequities surrounding safe working conditions and need for a liveable guaranteed wage during this time.

Unprecedented fast paced changes in evidence and information has exemplified the COVID-19 pandemic. The major themes addressed: i) the pandemic response and ii) the post-pandemic. COVID-19 has entered the panoply of human infectious diseases while characteristics of its clinical manifestation,

epidemiological transmission, public health and socio-economic consequences going forward are still uncertain.

During the Pandemic: Societal, Economic, Scientific, Population and Public Health Response
Uncertainty in the epidemiology and transmission of the virus, and the urgency in developing tests, therapies and vaccines, combined with supply chain challenges and the threat of economic collapse. Unemployment, flaws in the public health system and structural inequalities affecting Canadians were described. COVID-19 and financial hardship were feared as bringing enormous consequences to civil society. Prevention of xenophobia, racism, ableism and ageism were identified as critical.

There was concern about maintaining social cohesion while ensuring compliance of public health measures to contain the virus (and Canadians). Questions emerged about potential infringements on personal privacy in an attempt to govern population behaviours. Strong support for physical distancing was matched by concern for equity, human rights and social justice. Clear communication and safety procedures were identified as key issues for public health and medical systems that were seen to have been eroded through decades of cuts. Trust in science and public health measures amplified concerns about public understandings of the rapidly changing information about COVID-19 in a world of science denial, misinformation and disinformation. Consistent messaging was seen as vital for public health and political leaders to navigate the uncertainty surrounding the pandemic.

Protecting and supporting those most vulnerable from both the virus and financial hardship were central concerns. Respondents stressed the importance of working with indigenous communities to ensure their safety throughout the pandemic. Elderly populations were identified as needing to be protected from infection, especially those residing in long-term care facilities where COVID-19 had already claimed many lives in other countries. Others who experience racism or belong to lower socio-economic groups were seen as particularly susceptible to financial hardship due to the lockdown. Those precariously- or self-employed (e.g., taxi drivers, artists, small business owners) were deemed to need financial support through social assistance. Social isolation, economic fallout, and access to healthcare were linked to mental health consequences, delays in routine and elective surgeries, and family violence. Delays in university and childhood education were raised. The pandemic would hurt the entire Canadian economy. Members recommended that government spending target improving household incomes (through minimum wage or basic income) and sustaining small businesses.

The responses stressed the importance of establishing preparedness strategies for future pandemic and other emergencies. Numerous calls for "self-sufficiency" were perhaps goaded by the limited supply of filter masks and N95 respirators that challenged the safety of health care providers. Ensuring national sources for the manufacturing and supply of vaccines, medicines, equipment and food to every Canadian was a recurring theme. A common call for "preparedness" reflected these gaps in the supply change affecting the public health response to the current pandemic and future emergencies including climate and ecology. The importance of biomedical research, and attention to agricultural, environmental, infrastructural and manufacturing projects were outlined. Protections to ensure that biomedical technologies, vaccines, medicines and other essential goods are made in Canada, or at minimum, their accessibility guaranteed, were suggested.

While the need for self-sufficiency was a common theme, there was caution that national policies should not lead to isolation from the international polity, but instead contribute to coordinated, coherent international governance in keeping with the national standpoint of peace, order and good government. The respondents saw COVID-19 as an opportunity to tackle structural inequalities and climate change in shaping the new social order, nationally and globally. Economic incentives to help small businesses, families and individuals get back on their feet were seen as reinforcing social determinants of health and well-being. National policies to bring in a basic income and minimum wage were recommended both as a

response to the current pandemic and a preventative measure for future emergencies and the promise of universal pharmacare was not forgotten.

RECOMMENDATIONS FOR THE POST-PANDEMIC FUTURE: RESTRUCTURING FOR RETURN TO A NEW NORMAL

While there was wide appeal for "getting back to normal" and "restoring the essential sectors", there was also expectation that the new normal would and should not be as before. Respondents looked instead, ambitiously, at the opportunity for restructuring Canadian society, reducing socio-economic disparity, and developing new social and economic programs that address post-pandemic nation-building. A variety of post-pandemic futures were imagined, speculated upon, and recommended for the post-pandemic world. Governance figured strongly in the overlapping dimensions of societal, economic and technological challenges facing Canadians. Reflections balanced multiple accountabilities to meet common social values (peace, order, good government) and the public services and supply of goods needed for future epidemic response (vaccines, therapeutics, medical devices). Economic and industrial infrastructures are needed to secure supply chains for emergency public health PPEs in the immediate and for future pandemics.

Respondents did not lose sight of the urgency for safety and security rooted in social justice during as well as into the post-pandemic future, when the restructuring of the global economy will require renewal with innovative strategies. These were not halcyon imaginaries: the RSC respondents well noted the present and impending socio- economic and financial threats of security, racism and xenophobia, employment, poverty and privacy. The weaknesses in existing public services and infrastructures were acknowledged by members, and lessons learned from this and previous pandemics[2] were seen as an opportunity to prepare for, and possibly contain, the next outbreak by building new infrastructures that support technologies of precaution[3] and trust[4].

Even though members were specifically queried about "pressing societal challenges confronting Canada", they recognized the combined societal, biological, environmental and zoonotic origins of the SARS-CoV-2 virus and its rapid transmission in a global ecosystem. The co-evolutionary interplay of environment, agriculture, health and trade in One Health figured in many responses for future action. As one respondent suggested (translating from French), "having learned from this experience the incredible power of nature and the respect it deserves, without destroying the economy", Canadians need "to focus human energies less on growth and consumption and more on preservation and repair, building on the global co-operation that has emerged in the face of a common threat." Indigenous peoples and communities, homeless people, the poor, and seniors figured prominently in pandemic concerns and futures. Recommendations not only imagined but expressed the need to build economic strategies and infrastructural projects to address the post-pandemic future. The recommendations open up a landscape to possible futures where all Canadians are employed and fairly and equitably included. Another respondent suggested "adjusting the growth-based economic model to promote a more sustainable and human economy."

Post-pandemic futures weighed heavily on concerns about economic and social inequality within and beyond Canadian borders and call for attention to social justice. Recommendations included secure and stable employment, basic income, minimum wage, and redistributing wealth through taxation. One respondent declared, "Covid-19 showed the weakness of our social safety net," expressing concern about the erosion of workplace safety legislation due to "austerity measures". Another expressed the common desire for "regaining economic progressivism and stability that embraces all."

Conclusion

The COVID-19 pandemic presents multi-faceted and unprecedented challenges and opportunities for Canada to create a more just society. New institutions for the governance of Canada that embrace the

basic principles and values of human rights and social justice figured prominently in reinforcing population and public health measures (i.e., self isolation and physical distancing) to slow or stop COVID transmission in the immediate and post pandemic. Various recommendations surrounded "hoping to see some change in the world" and the creation of a new normal where international scientific collaborations would support the global community. Central ideas involved marshalling Canadian industry towards greater self-sufficiency without becoming insular. Respondents called for movement towards economic redistribution through taxation, basic income, fair minimum wages, public services, pharmacare and social services. They highlighted opportunities to pursue climate, environmental and ecological sustainability as Canada recovers economically from the pandemic.

Overwhelmingly, RSC members and fellows reflected the Canadian principles of peace, order and good government. Strengthening public health, building national self-sufficiency in research and manufacturing and in food production, ensuring a supply chain for essential goods and medicines are integral to our future, post-pandemic emergence.

References

[1] We are grateful to a preliminary analysis by Dr. William Turkel.

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