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Preface

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As Deputy Chief Medical Officer for Scotland over the last year, my time has been dominated by the challenges of responding to COVID-19: the exceptional pace of change; the absolute requirement for working together; and the challenges of balancing different risks.

Change has been relentless. We have got used to constantly monitoring a wide range of data changing every day, and seeking to understand and apply what that information tells us. We have seen the evidence base develop at pace, and sought to apply that as effectively as possible while it is still emerging. We have constantly been assessing when and what to restrict and when and what to ease, and making changes in response.

The need to work together has been crucial and has happened extensively. We have worked together – across national and local government, across the health and social care sector, across the public sector and the third sector, with the private sector and, of course, with people across Scotland as the virus has affected us all.

The balancing of risks has been central to all the decision making, and very often challenging. How to balance the immediate COVID-19 risks with broader health and wellbeing needs has been a constant question. We have tried to balance short-term requirements with longer-term implications. And we have had to consider how both the virus and our efforts to control it affect different population subgroups and communities of interest.

The time since COVID-19 emerged has seen great loss with the sadness of illness and death affecting far too many. However it has also proved a time of great learning and generated opportunities for positive change. There have been incredible achievements – in science and research, in public health delivery, and in innovation. We need to build on all these. There is also a legacy that will stretch us all as we seek to deal with the ongoing direct and indirect effects of COVID-19. Particularly concerning are the effects on those facing disadvantage before COVID-19 – who have been disproportionately affected by it.

While my perspective has been as Deputy Chief Medical Officer, colleagues across Scotland and beyond have mirrored my experience. We have all been challenged, sometimes in similar ways and sometimes in different ways. We have all had to respond, and sometimes that response has felt more successful than at other times. We all have learnt, and had to learn, new things – not just about the virus, not just about how to tackle it, but also how to cope, and help others to cope, with an unprecedented threat.

As the title of the Symposium highlights, science and social justice have intertwined as we have tackled the pandemic, and they will continue to do so as we look ahead. I am very grateful to the Organising Committee for their hard work in preparing the Symposium, which reflected all of these issues. I thank Professor Ian Russell, who co-ordinated the Symposium and collated this Supplement.

COVID-19: international perspective

In the Foreword on page 2 David Nabarro (World Health Organisation Special Envoy and College James Lind Lecturer for 2021) stresses that the UK is fortunate to enjoy its recent easing from lockdown, because the pandemic is surging across the rest of the world. Though the effective use of vaccines has provided temporary respite here, it will

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be difficult to resist that worldwide surge, given the constant need to update and distribute vaccines as COVID-19 variants multiply and cross borders. To overcome COVID-19 will require world leaders to agree a global programme that puts more emphasis on widespread behavioural change than on widespread vaccination. As COVID-19 is a disease that flourishes wherever poverty and inequality persist, that programme will also need to pursue and achieve equity. That will be much easier in countries that enhanced their public health services in response to the SARS epidemic, as in East Asia, rather than disinvested from them. So, as a slogan for that programme, 'Build back better' was too complacent. Though 'Build back fairly' better summarises the need to redistribute resources towards poor people and poor countries, Nabarro considers it too passive; and proposes that all countries need to 'Move Forward – Fairly and Fast'.

COVID-19: the role of the Royal College of Physicians of Edinburgh

On page 7 Angela Thomas, the Acting President, and colleagues describe the response of the entire College to the impact of COVID-19, and how we stayed at the forefront of medical education during a time of rapid change in both medical care and supporting scientific evidence. Every department has adapted and evolved to tackle the pandemic, which affected all aspects of our work – education, training, examinations, heritage, policy and public affairs. Several of the resulting changes will underpin the future development of the College. We are confident that these innovations, especially in the nature and delivery of education, will engender both broader reach and even greater relevance for the College in decades to come. Effective though electronic communication has proved over the year, however, it cannot replace the collegiality and close collaboration of a Royal College. So we look forward to engaging colleagues again in the revitalised College.

What human psychology has taught us about the pandemic and vice versa

On page 12 Stephen Reicher and Linda Bauld contrast two models of human behaviour that have very different implications for managing pandemics. Fragile rationalism suggests that people are poor at coping with complexity and uncertainty; when put under pressure in a crisis, they are prone to panic, and thus turn it into a tragedy. In contrast collective resilience takes a more constructive view: people seek consensus as the basis for practical action with the assumed support of others. The contrast between these two approaches is particularly stark in a pandemic. Whereas 'fragile rationalists' become irrational under stress, the collective model suggests that people become more resilient because the common pandemic accentuates the sense of shared identity. The authors report evidence that collective resilience best characterised the behaviour of the British public. Thus this grim pandemic has shown the remarkable and inspirational resilience of individuals when brought together in community. This is a crucial lesson for the future, because it underpins the importance of acting in ways that enhance rather than weaken the sense of social identity that emerges in a crisis.

Real-time monitoring of COVID-19 in Scotland

On page 20 Giles Calder-Gerver, Mark Woolhouse and colleagues present their approach to modelling the trajectory of the pandemic. They propose a simple method that uses four basic metrics – COVID-19 cases, hospital admissions for COVID-19, Intensive Care Unit admissions for COVID-19, and deaths from COVID-19 – to monitor the spread of the pandemic and its burden on health services in Scotland. They examine how the dynamics of the epidemic have changed over time, and assess the similarities and differences between the metrics. They explore potential biases, and show that their method has proven an effective tool for monitoring the pandemic. They report that the Scottish Government has used their method in the pandemic, not only to manage the risks posed by COVID-19, but also to evaluate the impact of a range of public health interventions.

COVID-19: decision-making in public health

On page 26 Linda de Caestecker and Beatrix Wissmann describe their experience of addressing the pandemic from a Health Board Department of Public Health. This needed novel ways of responding to the many immediate demands of the crisis, while mitigating the long-term impacts of the pandemic. This crisis continues to pose four key issues that dominated real-time decisions and still underpin future planning: managing care homes; achieving population behaviour change; strengthening Scotland's public health workforce; and addressing all four harms of the pandemic – direct and tragic harm to people's health, wider impacts on health and social care, threats to society and our way of life (notably the consequences of increased isolation), and the enormous impact on our economy.

COVID-19: decision-making in clinical practice

At the Online Symposium on 14 April Ewen Harrison reported on the work of the International Severe Acute Respiratory and emerging Infections Consortium – Coronavirus Clinical Characterisation Consortium (ISARIC-4C) to develop and validate scores to predict mortality[1] or deterioration (defined as need for critical care or for ventilatory support, or death)[2] in patients admitted to hospital with COVID-19. Both scores included variables readily available at initial hospital assessment, including age, sex, C-reactive protein, peripheral oxygen saturation, respiratory rate, and urea level. Both scores are easy to use, outperform existing scores, show utility to inform clinical decision making, and can thus effectively stratify patients admitted to hospital with COVID-19 into different management plans.

COVID-19: Scottish response – past, present and future

On page 34 Nicholas Phin reports on the first year of Public Health Scotland and identifies several lessons for the future. We need greater integration and stronger leadership across health and social care, especially to build more coherent strategies that improve public health and 'build back fairer'. We must ensure that service remobilisation and redesign: reduce known barriers to access; address the 'inverse care law', in particular by monitoring, reporting and addressing post-COVID-19 inequalities by social position and ethnicity; maximise digitalisation; and minimise the NHS's carbon footprint. More widely the economy should support those most in need and ensure that they 'catch up', focusing on Children and Young People, mental wellbeing, physical activity, and nutrition, not least through community development.

Health inequalities and COVID-19

At the Online Symposium Sir Michael Marmot summarised his 10-year update on health inequalities in England: life expectancy had stopped improving and health inequalities were growing wider;[3] and the damage to the health of people in Scotland, Wales, and Northern Ireland has been even worse. But across the UK COVID-19 has killed the most deprived tenth of the population at twice the rate of the most affluent tenth, consistent with most other causes of death. The basic cause is that lockdown and physical distancing both increase inequalities in exposure to the virus and the social determinants of health. The updated Marmot report called for a national commitment to reduce social and economic inequalities; as we emerge from the pandemic, that will become ever more important.[4]

The impact of COVID-19 on ethnic, gender and age-related subgroups

On page 40, against the background of stalling UK life expectancy, Katikireddi and colleagues see the pandemic as a major public health crisis. Social disruption and lockdown measures arising from uncontrolled infection have destabilised healthcare and other essential services. The economic crisis resulting from the pandemic is already triggering job losses, which will in turn have their own adverse health effects. Impacts, notably mortality and long-term harms, are not affecting everyone equally. Ethnic minorities, men and older people have disproportionately suffered from COVID-19, especially in risk of mortality. However, some indirect impacts – including those on mental health and employment – are more likely to affect women and younger people. Thus the pandemic will affect the lives of people in the UK for decades.

COVID-19: opportunities for public health ethics?

On page 47 Els Maeckelberghe defines the role of public health ethics as ensuring that policymakers and health professionals explain what they do and why. To improve public health decisions needs compliance with a framework of seven ethical principles: maximising population health; distributing resources equitably; while rewarding the contributions of key workers; respecting individual autonomy; while avoiding causing harm to others; maintaining public trust through transparency; all while protecting the vulnerable. The European Centre for Disease Prevention & Control has recently applied these principles to the challenging task of planning and managing vaccination against COVID-19. To regain public trust lost during the pandemic, the public health community needs to undertake explicit ethical analysis in preparation for inevitable future challenges.

COVID-19: opportunities to improve crisis responses to homelessness?

On page 53 Ewan Aitken reveals that, when COVID-19 struck, sustainable arrangements for the homeless seemed beyond reach in Edinburgh. Four case studies describe the experience of individuals whose support would have been worse without the pandemic. Two other case studies describe new models addressing homelessness in response to the pandemic. Aitken tests these six studies against the five core principles of the Plan to End Homelessness, the basis of current homelessness policy in Scotland. Thus COVID-19 stimulated new forms of support for homeless people, and a new culture of working together to solve urgent problems. This new approach marks a cultural change in multi-agency services support for homeless people. The challenge is to sustain these improvements, and learn lessons for other social problems.

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