As I write this column, protests and riots are rocking many cities in the U.S. with additional protests against police brutality and discrimination throughout the world. Decades of policies, decisions, and actions have left pervasive, systemic injustices that not only threaten people’s livelihoods, but also their lives based on differences in their race, religion, sexual orientation, or other characteristics. Recent policies enacted in multiple countries have exacerbated the problem and disadvantaged and endangered entire subpopulations based on their religion or region of origin. Some of these policies were enacted in the name of reducing some perceived risks – whether of terrorism, pandemics, or non-assimilation – and yet introduced deep discriminatory risks against many. At the same time, SARS-CoV-2 is disproportionately impacting black people in America. Recent events remind us that inequality is deep-
seated and systemic, not just in the U.S. but in many countries in the world.

Risk analysts should ask how we are addressing inequality and discrimination in our own work and research. Are we carefully examining issues of inequality and discrimination when we assess alternative policy interventions, risk management plans, or other actions? Are we careful not to increase the risk to already disadvantaged groups through our interventions? Are we actively pursuing research on real and perceived inequalities and discrimination in who bears and fears risks from what hazards? And are we, as SRA, doing everything we can to increase the diversity and inclusiveness of our society and the risk analysis profession more broadly?

As a small but concrete step, I will be coordinating a small group in the SRA leadership to explore the possibility of a special issue in Risk Analysis and possibly another non-academic outlet on the topic of inequality and discrimination in who bears what risks together with differences in risk perceptions, risk tolerance, and risk-taking, risk-avoiding, and risk-imposing behaviors. If you are a researcher or practitioner conducting work that explicitly addresses these issues and are interested in exploring what we might do to further this conversation please contact me in the next couple of weeks at sgukema@umich.edu.

Sincerely,
Seth Guikema
Thursday, June 11 at 11am ET

Consideration of Aerosol Transmission of COVID-19 and Implications for Public Health

From our publication, Elizabeth Anderson, Ph.D., will discuss the three lines of evidence: case reports of transmission for asymptomatic individuals in association with studies that show that normal breathing and talking produce predominantly small droplets of the size that are subject to aerosol transport; limited empirical data that have recorded aerosolized SARS-CoV-2 particles that remain suspended in the air for hours and are subject to transport over distances including outside of rooms and intra-building; and the broader literature that further supports the importance of aerosol transmission of infectious diseases. I conclude that the weight of the available evidence warrants immediate attention to address the significance of aerosols and implications for public health protection. I discuss recommendations and implications for future strategies to curb the spread of COVID-19 and update our paper, which was published on May 1, 2020, with more recent studies that add to these considerations.

Swiss Cheese, SARS-CoV-2 and Aerosols – The Role of Risk Analysis

In many aspects of environmental health protection, we rely on multiple barriers to provide by the integration sufficient public health protection, recognizing that no single barrier in itself is “perfect”. We are used to multiple causes of events – cancer from a chemical may result from ingestion, inhalation or dermal exposure. In approaching SARS-CoV-2, there has been false certitudes conveyed (infection is only by droplets, for example). As risk analysis researchers and practitioners, we are used to making decisions based on multiple causes and with uncertainty. We have a role in strengthening our visibility as important decisions get made with respect to re-opening and responding to the challenges of COVID-19, and Charles Haas, Ph.D., hopes to convey some of these points that can be taken.

Register

All episodes of COVID Conversations on Risk are available online.

- Episode 2 (podcast): New Challenges for Risk Analysis from COVID-19 feat. Rae Zimmerman
Call for Papers for Special Issue of Risk Analysis
“Global Systemic Risk and Resilience for Coronavirus COVID-19”

This call for papers on the theme of “Global Systemic Risk and Resilience for the Wuhan Coronavirus” is intended to indicate insights and viewpoints from scholars regarding risk and resilience analytics for policy making and operations of large-scale systems on this epidemic. Authors are encouraged to submit their articles addressing the theme of this special issue. This call is coordinated between the Society for Risk Analysis (SRA) and the Social and Economic Security Technical Committee of the IEEE Systems Man and Cybernetics Society and the Analytics and Risk Technical Committee of the IEEE Systems Council.

Topics of Interest:

The special issue aims to address the following, but not limited to, potential topics in epidemic risk and resilience modeling and applications:

- Innovative strategies to limit risk of microbial disease propagation
- Mitigate risk in healthcare with advanced analytics
- Queuing modeling in healthcare addressing microbial events
- Simulation of microbial disease outbreak events
- Global supply chains for healthcare emergencies
- Big data-driven microbial health risk identification
- AI-based epidemic network analysis
- Estimating the risk of global economic costs of Coronavirus
- MCDM models in field of microbial and healthcare risk management
- Pattern recognition in epidemic risk analysis
- How to manage risk of future outbreaks (prevention, control and treatment)
- Response models during epidemic outbreaks
- IoT application in microbial risk and healthcare
- Interdisciplinary approaches and decision-making tools in microbial and healthcare risk analysis
- Cloud-based framework for social media analysis
- Emergency management of resource allocation
- Humanitarian logistics dealing with uncertainties
Call for Abstracts: 2020 SRA–Europe Nordic Chapter Conference
Kaunas, Lithuania | November 5–6, 2020

Society for Risk Analysis Nordic Chapter invites to the yearly meeting of risk researchers and practitioners. Conference will provide interdisciplinary forum to discuss current research on risk assessment, risk perception, risk communication, risk management, and policy relating to risk.

Due to high uncertainty related to COVID-19, virtual participation in the conference will be possible. However we have high hopes to be able to welcome you in Kaunas in November!

We have a list of exciting keynotes and workshops, covering risk communication and management in times of Covid-19 pandemic, presenting innovative tools for risk assessment, management and prediction.

Submission deadline: August 29, 2020. For more information about the conference, and to submit your abstract, click here.

SRA Member Spotlight: Joseph Arvai, a 2019 SRA Fellow.

Arvai’s research has focused on advancing our understanding of how people process information and make decisions, with a specific emphasis on how people make trade-offs. He also conducts research focused on developing and testing decision-aiding tools and approaches that can be used by people to improve decision quality across a wide range of environmental, social and economic contexts. His research is applied, and accounts for decision-

The COVID-19 crisis has focused unprecedented attention on the use of benefit-cost analysis and approaches for valuing mortality risk reductions, commonly referred to as the value per statistical life (VSL). The pace at which new studies are being completed is extraordinary as is the significant attention they are receiving in the media. It is an exciting time for many members of SRA’s Economics and Benefits Analysis Specialty Group (EBASG) who have contributed substantially to the benefit-cost analysis literature.

Benefit-cost analysis has been widely used for many years to assess regulatory and other policies. In the U.S., two agencies have developed comprehensive guidance for conducting benefit-cost analysis and valuing mortality risk reductions: the U.S. Department of Health and Human Services and the U.S. Environmental Protection Agency. The U.S. Department of Transportation has also issued specific guidance on valuing mortality risk reductions.

One issue that arises in reviewing some COVID-19 analyses is the need to be clear about the comparisons that are being made and the policy implications. Analyses that compare the impacts of COVID-19 to conditions without COVID-19, or that compare COVID-19 impacts with no policy response to a widespread and fully-effective policy (such as a national social distancing policy with 100 percent compliance), provide useful insights into the scope of the crisis and the trade-offs. Analyses that predict future conditions without and with an incremental change in policy likely provide a more useful guide to action, however, particularly if they include reasonably realistic assumptions about behavioral responses. For example, some people will adhere to social distancing recommendations regardless of government requirements, while others will ignore these recommendations even if social distancing is required. These responses in turn have potentially important ramifications for the costs and benefits of the policy.

Another issue is exploring uncertainties in the VSL estimates. VSL is derived from individuals’ willingness to exchange their own income for small changes in their own risk, such as a 1 in 10,000 decrease in their
chance of dying in the next year. U.S. agencies currently rely on population average values of about $10 million when adjusted to 2019 dollars and income levels. This means that a typical individual is willing to pay about $1,000 to reduce his or her chance of dying within a year by 1 in 10,000, or $100 if the decrease in the chance of dying is 1 in 100,000. For example, if a policy were to reduce the risk of dying from COVID-19 by 1 in 10,000 for each of 1 million people, the economic value would be $1 billion ($1,000 x 1,000,000) and 100 fewer people would die this year (1/10,000 x 1,000,000).

However, the value of reducing mortality risks depends on the characteristics of the risks and of the individuals affected. U.S. estimates are often derived from studies of the change in wages associated with changes in occupational risks. Individual willingness to pay for mortality risk reductions may be greater for risks as such as those associated with COVID-19 if the risks are perceived as more dreaded or ambiguous and less controllable or voluntary than these more familiar risks. The relationship between VSL and age (or life expectancy) is also uncertain. Values for children may be larger, and values for the elderly smaller, than for middle-aged adult. Finally, as the risk change gets very large, its magnitude affects the amount individuals are willing and able to pay. While individuals report they are willing to pay $1,000 for a 1 in 10,000 risk change, it would be difficult for most to pay $10,000 for a 1 in 1,000 risk change.

While well-conducted benefit-cost analyses can play an important role in encouraging careful investigation of policy impacts and informing decisions, the relationship between individual willingness to pay and income emphasizes the need to supplement these assessments with other considerations. As noted in the government guidance documents cited above, it is essential to accompany benefit-cost analysis with analysis of the distribution of the impacts. Many people care deeply about extent to which those who are disadvantaged are disproportionately affected by COVID-19 risks and by the economic consequences of policy actions. These factors are important policy considerations.

More generally, these are difficult issues and benefit-cost analyses provide substantial insights, particularly if both the implications and the limitations are clearly communicated. EBASG members look forward to many interesting discussions about these issues, including in the pages of Risk Analysis and at our December meeting as well as elsewhere.

Lisa A. Robinson previously chaired SRA’s Economics and Benefits Analysis Specialty Group and was a member of the SRA Council. She is a Senior Research Scientist at the Center for Health Decision Science and Center for Risk Analysis, Harvard T.H. Chan School of Public Health.
Are you a member of another organization that could benefit from co-sponsoring an event with SRA? For more information, and to apply for co-sponsorship, click here.

Check out SRA's growing resource collection of COVID-19 materials.

Looking for a change? Check out SRA's job board for new career opportunities in risk analysis.

Are you a regular contributor to an online publication or blog? We want to help share your content! If you contribute to a publication, please email Melanie Preve and we'll be sure to share your pieces on SRA's social media channels.

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