



# Pandemics and Beyond: The Potential for U.S.-Mexico Cooperation in Public Health

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The outbreak and global spread of the COVID-19 coronavirus is having a profound impact on health systems and on decision-makers across the world. In North America, the response has been varied, with problems in testing for the virus in both the United States and Mexico, and an outlook that, at the time of writing, suggests that hospitals and medical professionals will be overwhelmed by the peak of the outbreak.

While the short-term future for all three countries looks highly complicated, the prospects for Mexico seem particularly perilous. The last of the North American neighbors to be hit by the pandemic, Mexico faces an extra challenge due to limited resource availability. Slowly the government appears to be waking up to the severity of the crisis, but there are widespread fears that the health system will be totally overwhelmed by the approaching crisis, with medicine in short supply and budgetary cuts hitting health care delivery even before the outbreak.

As the pandemic progresses, it has been observed that different countries are hitting peak contagion at different times. This raises a problem in the context of an integrated North American economy. For, once the United States has brought the pandemic under control in its own territory, Mexico may still be awaiting peak infection rates. In this circumstance, cross-border assistance is going to become vital. The North American neighbors have, of course, faced pandemics before. The SARS outbreak in 2002-2004 and the H1N1 pandemic in 2009 provided grave public health threats in North America,<sup>1</sup> and the three NAFTA partners designed institutional arrangements to facilitate cooperation in the face of these cases. Building initially on the basis of the Security and Prosperity Partnership (SPP), the three NAFTA partners began to develop protocols for jointly confronting pandemics and working together to minimize their impact on both the economy and public health.

In the first half of this paper, we examine the existing institutional mechanisms for cooperation in the area of pandemic outbreaks between Mexico and the United States, and stress the urgent need for a coordinated response. The recent history of such coordination has been one of success, but after each episode, the governments have recognized the need for modifications to existing frameworks and for policy learning from the experience.

The second half of this paper examines the potential for public health cooperation beyond pandemics. Though this may seem a secondary concern at the time of writing, there is a pressing need for authorities in both countries to extend and deepen their cooperation beyond the current crisis. Harmonizing regulatory practices to make it quicker to get drugs to market, making clinical trials more effective and richer in data, encouraging an integrated market for health care services, benefiting from integrated production processes

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<sup>1</sup> It is also worth mentioning that the international H5N1 avian flu and Ebola outbreaks in 2005 and 2014 respectively raised the spectre of global contagion as well. In the fall of 2014, the health ministries of the two countries signed an MOU in the health policy area, with an agreement shortly after between the Department of State and SRE to provide evacuations for Mexican nationals from Ebola-hit areas.

in medical devices and investing in human capital would all positively impact the prevention and handling of future crises.

### *Confronting Contagion through Cooperation: The NAPAPI*

In 2005, the NAFTA partners included the issue of pandemics through the mechanism of the Security and Prosperity Partnership (SPP). This trilateral agreement sought to extend NAFTA cooperation to include working groups on Manufactured Goods and Sectoral and Regional Competitiveness, E-Commerce & ICT, Energy, Transportation, Food & Agriculture, Environment, Financial Services, Business Facilitation, Movement of Goods, Health, and Immigration.

Spurred on by the threat of a highly lethal H5N1 (avian flu) pandemic, the three governments worked together in the Health Working Group over the next two years to produce a comprehensive approach to prepare for avian and pandemic influenza in North America. Though this North American Plan for Avian and Pandemic Influenza (NAPAPI) was founded on the assumption that a pandemic would start outside of the region (because of the re-emergence of the H5N1 virus in Asia in 2003), it nonetheless marked a new departure for cooperation in fighting pandemics in general. The basic guidelines included in the original NAPAPI were a direct reflection of the World Health Organization's (WHO) International Health Regulations (IHR) published in 2005.

By 2009, the SPP process had been replaced by the North American Leaders Summit (NALS), and the talks between the heads of government that year focused heavily on the ongoing struggle against the H1N1 pandemic which originated in Mexico that year. The successful cooperation between the three governments in this effort to contain the virus was recognized as critical in halting the spread and reducing the lethality of the pandemic. Coming out of these talks, health and public safety officials began an intensive process of revising the 2007 NAPAPI that in 2012 produced a new plan that focused on animal (rather than just avian) and pandemic influenza. Of critical importance in containing the 2009 H1N1 pandemic was the timely sharing of information and data from Mexican authorities to their counterparts in the United States, which allowed them to identify the virus as being identical to the outbreak in Mexico.

The 2012 version of the NAPAPI<sup>2</sup> echoed the basic principles of the 2007 accord and provides a policy framework to enhance trilateral collaboration in the event of an outbreak. It addresses both animal and public health issues, including early notification and surveillance, joint outbreak investigation, epidemiology, laboratory practices, medical countermeasures, personnel sharing, and public health measures. Following on from the NALS in 2012, the health ministries of both countries signed a declaration on collaboration during epidemiological events.

Given that the H1N1 pandemic originated in Mexico, the new incarnation called for preventing the spread of viral outbreaks from outside the region as well as halting and slowing pandemics within North America. The main axes of this collaboration are aimed at:

- **Detection, monitoring, and control** of an outbreak to limit transmission between animals and humans as well as human to human transmission;
- **Facilitating communication** among relevant national authorities to react and cooperate rapidly and effectively to an outbreak or pandemic;

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<sup>2</sup> For the full text of the North American Plan for Animal and Pandemic Influenza see <https://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/nml-pndmc-nflnz/index-en.aspx#a6.1>

- **Prevention and slowing** both the entry and propagation of new strains of human influenza into North America;
- **Mitigation** of human impact to minimize illness and deaths; and
- **Sustain infrastructure** and **mitigate** social and economic impact.

A critical element of the NAPAPI was to identify the relevant ministries and agencies in all three countries, as well as the existing national emergency plans. This preliminary exercise helped the parties to bring together relevant agents and to coordinate their actions and responses prior to and during a pandemic. Building on this, in order to facilitate cooperation prior to and during a crisis, a Senior Coordinating Body (SCB) was created, composed of high-level officials from health, agriculture, security, and foreign affairs ministries. In turn, this group was supported by a Health Security Working Group (HSWG), bringing together policy and technical subject matter experts from the three countries. The HSWG was tasked with implementing preventive actions and preparing response mechanisms in the event of an outbreak.

Specifically, the NAPAPI committed its signatories to a series of actions:

- Develop streamlined cross-sectoral mechanisms, including up-to-date contact lists for each country, for sharing communications strategies and plans and for identifying and addressing emerging issues;
- Establish procedures and mechanisms for sharing, where possible, pre-release strategies and plans during an outbreak, including public messaging;
- Share best practices and social science knowledge, including behavioral research, to inform communications planning;
- Share research and communications strategies on issues of key public interest and concern (e.g.; vaccine safety and effectiveness, animal health, food safety);
- Commit to developing opportunities to exercise the planned response; and
- Share any post-event evaluations or “lessons learned”.

## Why the NAPAPI Matters

The recognition by North American leaders in 2005 that the prevention and management of either an endogenous or exogenous outbreak would require intensive coordination was spurred on by three main factors, each of which is pertinent in the current crisis.

1. The first, the emergence of highly contagious pandemics from Asia, brought a heightened awareness that, in a highly globalized world and in a North American region marked by high levels of integration, an outbreak hitting one country would rapidly spread to its neighbors. This is truer than ever, as the rapid global spread of the COVID-19 virus has shown since January.
2. Second, in such times, nations acting alone would not be able to adequately manage the effects of viral contagion and therefore cross-border inter-governmental cooperation would be critically important. Fortunately, a spirit of cooperation prevailed in the region in the first 15 years of this century, with first the SPP and then the NALS process. Sadly, that spirit of cooperation has been severely tested by the political climate of the past three years, with energies focused on saving NAFTA and negotiating the USMCA, and on managing the migration crisis at the U.S. southwest border. Both the Trump and AMLO administrations have adopted a more nationalistic approach to policy, but the cooperative mechanism has survived. In January of 2019, Mexico’s Under-Secretary of Health, Dr. Hugo López-Gatell, met with U.S. counterparts from the Department of Health and Human Services to reaffirm the importance of existing mechanisms, specifically the NAPAPI. This,

it turns out, was a critical element in raising awareness in the AMLO government of the importance of North American cooperation in health. At the time of writing, the NAPAPI is being employed by health and foreign ministries in the United States and Mexico as a channel of communication, more than technical or material assistance, as each government struggles with the national response, but that is to be expected in this phase of the crisis.

3. The creation of the NAPAPI reflected a faith in the importance of institutional arrangements in the North American relationship. It is true that neither President Trump nor President López Obrador have shown much interest in strengthening institutions to this point in their respective administrations, but the pandemic highlights the importance of maintaining existing mechanisms for communication and crisis management.

### *Learning from This Crisis: Strengthening the NAPAPI*

After each previous pandemic event, the North American governments have revisited the NAPAPI to see how its arrangements should be reworked to incorporate lessons learned. In the case of the COVID-19 pandemic, at the time of publication, it is too early to tell how it will be employed throughout the crisis, but it is already playing a useful role in enhancing communication between the North American partners. As the pandemic progresses, the learnings from the United States (and Canada) in crisis management can be shared with Mexican counterparts in the Secretaría de Salud, the Consejo de Salubridad General (CSG), and the Instituto Nacional de Salud Pública (INSP). This may prove to be one of the most important assets in helping Mexico contain the viral outbreak.

Of immediate relevance for all three nations during the current crisis, the NAPAPI provides guidelines regarding the stockpiling of medical countermeasures for pandemic influenza and for personnel exchange and assistance. A critical problem thus far has been the lack of key medical supplies such as masks and testing kits for medical services, as well as hand sanitizer, disinfectant wipes, and thermometers for the general public. A coordinated manufacturing response among the North American neighbors would greatly facilitate the supply chain across the region. What's more, a simple clearing house mechanism would help to identify where potential surpluses exist that can be moved to areas of critical need. Once a vaccine for COVID-19 has been discovered, both coordinated regulatory procedures and rapid manufacturing of the medicine will be essential in ensuring the rapid advance of mass vaccination procedures.

Just as critical will be the coordination of national responses to the protection and maintenance of critical infrastructure if the crisis were to worsen. The NAPAPI specifically mentions the need to focus on “cross-border assets such as transmission lines, pipelines, and dams” as well as the need for “recognition of the major interdependencies” between the three national economies. At the time of publication, there is no suggestion that such infrastructure is under strain; however, various regions of the world are already reporting overloaded telecoms systems as domestic internet use has increased with people working from home.

The NAPAPI also provides guidance on border measures during a pandemic. While recognizing that government border policy must be flexible and agile, the agreement identifies certain unifying principles to slow the entry and spread of a pandemic and to reduce the human and economic impact thereof. What's more, it calls on relevant authorities to consider the impact on the movement of people, animals, and goods when they enact new border measures to facilitate the cross-border movement of medical equipment, materials, and medicine.

Once again, this element of the NAPAPI calls on all three governments to focus on a cooperative and coordinated approach to pandemic management and crisis responses, recognizing the high levels of

connectivity and interdependence within the region. The partial closing of both the U.S.-Canada border and of the U.S.-Mexico border during the third week of March 2020 proceeded according to those principles.

The existing institutional North American framework for pandemics therefore provides the signatory governments with extensive guidance and protocols for cooperation and coordination during the current crisis. The three governments have already begun activating its measures to facilitate communication; as the pandemic progresses, they would do well to explore how it can be employed to optimize a regional response.

### *Beyond Pandemics – What Else Can Mexico and the United States Do Together?*

The traits that bind Mexico and the United States through trade and economics can also form the basis for collaboration and cooperation in health policy and healthcare delivery in both the public and private sectors. Cross-border collaboration could enhance access to medicines, devices, and diagnostics, improve efficiency of healthcare delivery, and create jobs in both countries. We outline our thoughts on several of these below.

***Regulatory Cooperation*** – Over the past several years, Mexico’s regulatory agency, COFEPRIS, undertook efforts to enhance its capabilities and systems and, as a result, obtained international recognition as a regional regulatory reference agency for medicines and vaccines from the Pan American Health Organization; the first Latin American country to do so. Further, in an effort to enhance its own efficiency, COFEPRIS implemented fast-track procedures to review medical device registration applications for products already approved in the United States, Canada, and Japan and for pharmaceutical products previously registered in United States, the European Union, Canada, Japan, and Switzerland. By eliminating duplicative reviews, the agency was able to focus its efforts on higher risk applications. Seven Latin American countries (Ecuador, El Salvador, Colombia, Chile, Costa Rica, Panamá, and Belize) followed a similar approach by accepting COFEPRIS’ regulatory approval decisions for drugs and devices.

Regulatory agencies must not only review applications for new products but must also inspect manufacturing facilities across the globe to ensure compliance with Good Manufacturing Practices (GMP) and other appropriate standards. Yet the number of device and drug manufacturing facilities around the world far exceeds the inspection capability of any individual regulatory agency. Collaboration among qualified regulatory agencies to reduce or eliminate duplicative inspections can enhance efficiency by increasing the overall number of manufacturing sites inspected annually. Since it is improbable that the FDA would immediately accept COFEPRIS inspection results (or vice-versa), a logical first step would be to conduct joint inspections as a form of confidence-building measure akin to the practices followed in arms control. Once the FDA and COFEPRIS developed confidence that their inspection procedures, even if slightly different in style or approach, would achieve the same outcome, the agencies could coordinate their inspection schedules to maximize the number of facilities inspected in any calendar year. Such an agreement should include a caveat that reserves for either agency the right to conduct its own inspection of any facility, regardless of actions taken by the other. Not only would this collaborative approach increase the safety of the device and drug supply chains, it would also allow manufacturing facilities to dedicate more of their time to production by reducing the number of disruptive inspections without undermining safety and quality for patients.

***Clinical Trials*** – As drug and device development has globalized, so too have clinical trials. Key drivers that inform decisions on where to conduct global trials include clear regulatory frameworks, rapid approval procedures, and availability of appropriate patients. These trials provide earlier access to novel treatment for patients, training of medical professionals in state-of-the-art techniques, and economic benefit through both increased spending by the clinical trial sponsors and some reduction in the cost of care for trial participants. Mexico ranks 21<sup>st</sup> among all countries for clinical trials and could further increase its appeal

through efforts to streamline the trial approval process. Opportunities for further collaboration through academic exchanges and joint research projects should be explored. The relative proximity of U.S. and Mexican medical schools, similar time zones, and increased bilingual capability among students in both countries make face-to-face collaboration inexpensive and online collaboration no more complex than domestic collaboration. Sharing of data, the ability to conduct trials with similar patient populations in multiple locations, and the number of Mexican physicians and researchers with U.S. experience makes collaboration appealing. In addition to specific research projects, Mexico and the United States could collaborate on policy issues such as informed consent, protection of patient data, and best practices in trial design and execution.

*Medical Tourism* – For decades, American citizens have crossed the border into Mexico to obtain lower cost healthcare, dental care, experimental treatments, and prescription medication. This individual, unstructured medical tourism has been a boon to providers in Tijuana and other cross-border cities. Similarly, Mexican citizens, and especially the wealthy, often travel to the United States for medical care, especially for highly complex treatments. While this travel is also beneficial to the receiving hospitals and their staffs, medical tourism could be a far more significant aspect of cross-border trade with a bit of innovation and willingness to explore new options. Structured medical tourism programs, paid for by employers and/or insurers, already exist to a limited degree, and officials within Mexico’s Ministry of Tourism have expressed a commitment to using their offices to promote medical tourism – both for individual, cross-border care and for more comprehensive programs. Expansion of corporate medical tourism programs could provide important cost reductions for U.S. payors while bringing substantial economic and educational benefits to Mexico. Essentially, these programs allow an employer to offer (but not mandate) their employees the opportunity to travel for surgery or other treatment at a company-approved facility (such as an internationally accredited hospital) in Mexico rather than in the United States. The employer covers the costs of the surgery/treatment as well as all lodging and travel expenses for the patient and an accompanying family member. Some companies have also offered financial incentives to their employees – essentially sharing the cost savings. Corporate medical tourism programs constructed in this fashion have sent U.S.-based employees for care in numerous countries such as India, Singapore, and France. It is worth noting that all of these are a longer flight away than Mexico, which is accessible non-stop from at least 40 U.S. cities. In addition to the comprehensive programs described above, existing but more limited medical tourism programs could be expanded. The state of Utah covers the cost of travel to Tijuana (or Vancouver) for state employees who need one or more of 13 specific medications. The state also provides the employee with a \$500 bonus for participating in the program. While the cost reductions have not been as substantial as expected, the program has generated benefits.<sup>3</sup> A second version of medical tourism is practiced by Denver’s North American Surgical Hospital (NASH) which sends both patient and surgeon to Cancun for orthopedic procedures. This approach allows for consistent patient care by the same physician before, during, and after the surgery while taking advantage of lower overhead costs.

Most of the medical tourism programs described above are largely private sector funded and managed. Their success relies on establishing a trilateral relationship among a receiving healthcare facility, a payor (self-insured firm or private insurance provider on behalf of its client(s)), and a source of patients (employer or insurance provider). Strong relationships between the physicians in both countries are also essential to ensure continuity of care. More firms could take advantage of these programs, perhaps most logically for employers in the southwestern United States given proximity and cultural affinity. Yet the big enchilada would be the authorization to use Medicare/Medicaid benefits in Mexico. With costs for surgery and other treatments often 30 percent of the cost in Mexico (based on published rates), the savings would likely more

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<sup>3</sup> <https://www.vox.com/policy-and-politics/2020/2/10/21131921/utah-expensive-prescription-drugs-mexico>

than cover the costs of transportation and lodging for the patient and a caregiver for the treatment and recovery period. While approval of such a radical change in U.S. public healthcare is improbable in the short term, it is an option worthy of further consideration, perhaps starting with coverage for American retirees living in Mexico.

### *Health Systems*

Despite what appear to be significant differences in our healthcare delivery systems, there are enough similarities to suggest that best practice sharing and joint exploration of new models could prove beneficial for patients, providers, and payers in both countries. One of the most important shifts in healthcare is a growing focus on value-based healthcare (VBHC), a “healthcare delivery model in which providers, including hospitals and physicians, are paid based on patient health outcomes...and are rewarded for helping patients improve their health, reduce the effects and incidence of chronic disease, and live healthier lives in an evidence-based way.”<sup>4</sup> VBHC envisions comprehensive care aimed at prevention rather than treatment which creates opportunities for pilot projects with defined populations – a neighborhood, a small town, etc. - for whom “cradle to grave” care can be provided with compensation based on outcomes. The issue of VBHC has acquired international prominence this year as G20 host Saudi Arabia has chosen it as a central theme of the meetings. While payment mechanisms differ between (and within) the United States and Mexico, providing healthcare based on value instead of cost could be implemented in Mexico with lessons generated applicable to systems across the two countries (and beyond).

VBHC pilot projects are not the only way in which the United States and Mexico can collaborate to improve delivery of healthcare. For instance, health systems in both countries could make better use of eHealth and telemedicine with benefits accruing on both sides of the border. Mexican doctors and nurses could provide bilingual tele-consultations which may reduce the number of unnecessary visits to emergency rooms or “doc in the box” facilities. Some private firms are already offering this sort of consultative services to their bilingual or primarily Spanish-speaking patients, and demand is likely to increase. In a similar vein, telemedicine is increasingly relied upon to provide or supplement care for persons living in remote areas of the United States where access to trauma units and highly specialized physicians is limited. In these cases, a call center with video capability links a small remote hospital to providers in a larger location who can provide consultations and even instructions on how to perform procedures remotely. The lessons learned from this experience could surely be transferred to Mexico where access to healthcare for Mexicans living in remote areas is a priority of the AMLO administration. Once again, though the payment systems are different, the challenges facing the two countries are quite similar.

### *Manufacturing*

Mexico is already home to significant medical device and pharmaceutical production, yet its potential, and the inherent advantages, has not been fully capitalized upon. Programs to enhance skills and develop advanced quality assurance programs would allow Mexico to move up the medical device value chain just as it has in the automobile and aircraft industries. While device firms are currently able to find and train workers to produce basic items and devices, they lament the absence of a highly-skilled labor pool that would permit production of more complex devices. Collaboration between medical device manufacturers, federal and state government, and academia, could address this skills gap and thus allow firms to take greater advantage of Mexico’s proximity and lower costs of production. These training programs could

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<sup>4</sup> <https://catalyst.nejm.org/doi/full/10.1056/CAT.17.0558>



help Mexico expand its own medical device industry which remains surprisingly small for a country of Mexico's size and level of industrial development.

On the pharmaceutical side, Mexico may offer opportunities for greater generic drug production for export to the United States. Most drugs imported into the United States come from Ireland, China, and India (with 80 percent of the active pharmaceutical ingredients coming from the latter two countries). Given transportation costs, Mexico should be a more competitive manufacturer. COFEPRIS may also be able to offer greater assurances of quality than its competitors whose plants are often subject to lengthy reviews and suspensions due to failures to meet acceptable standards, especially if the confidence-building measures referenced earlier are implemented. Mexico is already an important producer of generic drugs for the domestic market and for export to South America, but Mexican manufacturers have shown little interest in entering the U.S. market. Partnerships with U.S. firms might be a useful first step toward integrated supply chains. The disruptions in the supply chains for devices and drugs caused by COVID-19 should serve to encourage firms to explore alternatives to their reliance on China for these essential products.

### *Training and Academic Exchanges*

The nursing shortage currently facing the United States is likely to be exacerbated further as our population ages. Mexico has one of the lowest ratios of nurses to the general population in the OECD. Collaboration between U.S. and Mexican universities and nursing schools, perhaps even leading to joint licensing and certification programs, could provide an opportunity to address the shortages in both countries. In the United States, increasing the supply of bilingual nurses would help respond to increasing demand. Joint degree programs with some portion of the coursework delivered in Mexico could also substantially reduce the total cost of a nursing degree. Further, Mexican nurses could be trained to perform more advanced tasks (as in the United States) which could reduce the workload for doctors and potentially address the lack of access to medical care in remote areas. Nurses trained to diagnose illnesses and prescribe medication (such as nurse practitioners in the United States) could provide in-person or telemedicine care when/where doctors are unavailable or cannot keep up with patient demand.

### *Conclusion and Policy Proposals*

In recent years, the focus on the bilateral relationship has been dominated by three major issues: trade, security, and migration. The current COVID-19 crisis has brought to light another dimension to the highly interdependent relationship between the United States and Mexico, one that has been explored in previous periods and which spurred the North American governments to create coordination mechanisms to address pandemics. The current crisis compels us to think more seriously about public health as a priority issue in the region.

Of course, this brief examination of existing and potential inter-governmental health cooperation between Mexico and the United States is necessarily incomplete. We have not explored existing cooperative agreements, for example between health research agencies in both countries, nor have we detailed the extensive presence of U.S. pharmaceutical companies and medical device manufacturers in Mexico. The story of U.S. citizens crossing the border to buy cheap medicine and access lower cost medical and dental services is well known to most.

But the ideas laid out here suggest that insufficient attention has been paid thus far to the multiple ways in which public health impacts the security and prosperity of the region. Of immediate and critical importance is the NAPAPI as a way of coordinating national responses to the COVID-19 crisis. But beyond the current

circumstances, there is an obvious need for an integrated approach to an issue and an industry that is vitally important to the health of both the public and the economy and is responsible for trillions of dollars in GDP.

To better address public health in the bilateral relationship, we propose a number of areas for present and future cooperation:

1. The U.S. and Mexican governments should employ the full extent of measures included in the North American Plan for Animal and Pandemic Influenza (NAPAPI) during the current COVID-19 crisis;
2. Once the current crisis has passed, the NAPAPI signatories engage in a full examination of the workings of the plan to incorporate lesson learned;
3. A full study of medical and public health resources should be conducted to understand existing capacities and vulnerabilities;
4. The United States and Mexico should work more closely to coordinate regulation of the pharmaceutical, medical device, and diagnostics industry to eliminate unnecessary red-tape;
5. Cross-border clinical trials offer the opportunity to benefit from larger volumes of data and more diverse demographics;
6. The United States and Mexico should collaborate on ways to bring about Value-Based Health Care (VBHC) programs to their populations;
7. Explore ways in which integrated manufacturing in the pharmaceutical and medical device industries can lower production costs; and
8. Governments, private sector companies, and institutes of higher education must work across borders to anticipate the human capital needs in public health.

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## About the Authors

**Andrew I. Rudman** is currently Managing Director at Monarch Global Strategies (Monarch), a boutique strategic advisory firm located in Washington, D.C. and focusing on government relations and market entry/access for companies interested in doing business in Mexico and other Latin American countries. Andrew manages Monarch's healthcare practice and supports clients across a range of sectors and interests. He also writes and speaks on Mexican healthcare policy issues.

Prior to joining Monarch in 2014 (then known as ManattJones Global Strategies), Mr. Rudman was Deputy Vice-President for the Western Hemisphere at the Pharmaceutical Research and Manufacturers of America (PhRMA) (2007 – 2014) where he was responsible for developing and executing policy advocacy strategies for member companies across the hemisphere with particular focus on Mexico and Brazil. He also covered Canada and Russia at various times during his tenure. Mr. Rudman began his professional career with the U.S. Government and served in the Department of State as a tenured Foreign Service Officer (1991 – 2001) followed by the Department of Commerce (2001 – 2006) where he was Director of the Office of NAFTA and Inter-American Affairs. His government and private sector experience allow him to provide guidance for development of government relations strategies especially for the healthcare industry including drug, device, and supplement manufacturers facing regulatory and market access/approval challenges. Mr. Rudman has a master's degree in Latin American Studies from Tulane University and a bachelor's degree in Government and Spanish from Colby College. He is fluent in Spanish and has a working knowledge of Portuguese.

**Duncan Wood, PhD**, Director of the Wilson Center's Mexico Institute is an internationally renowned specialist on North American politics, Mexico and U.S.-Mexican ties who lectures and publishes on hemispheric issues and relations. He regularly gives testimony to the U.S. Congress on U.S.-Mexico relations, is a widely quoted source on Mexican politics, and has published extensively on this and other issues. He is the author or editor of 12 books and more than 30 chapters and articles. He is currently co-chair of the World Economic Forum's Global Future Council on Transparency and Anti-Corruption, has worked closely with the WEF on Energy policy, and is a member of the editorial board of Foreign Affairs Latinoamerica. From 1996-2012, he was a professor and the director of the International Relations Program at the Instituto Tecnológico Autónomo de México (ITAM) in Mexico City for 17 years. Over the course of his 30 year career he has been a Fulbright Fellow and a Fellow at the Center for Strategic and International Studies (CSIS); an editorial advisor to Reforma and El Universal newspapers; Technical Secretary of the Red Mexicana de Energía; a consultant with McLarty Associates, the Economist Intelligence Unit, Horizon and Eurasia Group; and owner of a speakeasy in Mexico City. He studied in the UK and Canada, receiving his Doctorate in Political Studies from Queen's University, Canada, and is a recipient of the Canadian Governor General's Visit Award for contributions to the Mexico-Canada relationship. He is a life-long fan of Liverpool Football Club and will hopefully Never Walk Alone.