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Introduction

A healthcare system is built upon the foundation of the individuals who enable it to function on a daily basis. During the SARS outbreak, healthcare personnel went above and beyond to ensure that Ontario's healthcare system continued to work. However, this came at a great personal price.

Many healthcare workers became ill or were quarantined as a result of SARS. Many suffered the strain of working excessive hours and double shifts, wearing uncomfortable protective equipment, and enduring stigmatization by friends and neighbours. And many, as one respondent described, suffered in other ways: "The psychological impact of the SARS outbreak on healthcare workers cannot be over emphasized. Significant stigmatization of healthcare workers occurred. Staff were highly anxious at times, and this was complicated by the media attention and inconsistent information around SARS. Examples that some staff experienced were: being unable to get childcare, being called by schools and told to keep their children home. This may have longer term recruitment and retention repercussions for healthcare workers."

One staff member of a Toronto area hospital that was severely affected by SARS described the experience poignantly: "The word SARS instilled immense fear not just in the community, but within the walls of [the hospital] itself. With some 35 staff members contracting the disease, and one of our own dying from SARS, it was a threat that was all too real. But day after day our staff came to work, setting aside not only fears about their own safety and well-being, but an even greater dread about taking the disease home to their loved ones. Home, in many cases, provided little respite, as hospital staff became outcasts in the community. Shunned and isolated by family and friends alike, some reported seeing people cross the street to avoid even walking near their homes. Many staff felt – and were – truly alone. The sense of isolation was particularly acute for staff who contracted the disease. Their families could not visit them in hospital, and as soon as they were discharged they were sent into quarantine. Once home, Public Health and other officials visited them wearing protective gear, further frightening neighbours and friends. One of our staff members returned home only to learn that they were no longer welcome – their housemates had left our colleague's belongings outside. Media hysteria

exacerbated the situation, creating what came to be called the “SARS pariah syndrome”, making life outside the hospital difficult for healthcare workers, patients and their families. Despite the danger, our staff persevered, braving the crisis day by day.”

On a more systemic level, SARS brought to a head longer-standing issues around the supply and staffing of healthcare professionals. The report of the National Advisory Committee on SARS and Public Health made a number of recommendations concerning the need for a health human resources strategy in the public health sector.¹ The Panel agrees with these recommendations, and endorses the position taken by the National Advisory Committee that Ontario needs an increased number of professionals, as well as educational and career opportunities, in public health. In particular, the National Advisory Committee has recommended that the federal government urgently work toward creating and supporting training positions and programs, as well as career paths and opportunities for community medicine physicians, field epidemiologists, infection control practitioners, public health nurses, and others working in public health-related fields. The Ministry of Health and Long-Term Care must join in this work and advance it at a provincial level.

Key Learnings

Supply of healthcare workers: Human resource issues held a prominent place and raised concerns beyond the realm of the public health sector

“The overall system is stretched so that it is generally very difficult to find staff at the best of times. This means that allowing some excess capacity in the system in terms of numbers of staff becomes very important.”

throughout the submissions made to the Panel. The acute shortage of human resources across all sectors and in all fields of health care was identified as an overarching problem, which was also all too apparent prior to SARS. In particular, SARS highlighted and reaffirmed the very limited number of certain

professionals in specific areas, namely nurses with specialized training in emergency and critical care; physicians with specialty training in infectious disease; Medical Microbiologists and epidemiologists; public health professionals; occupational health staff; and respiratory therapists.

In the opinion of one respondent “The overall system is stretched so that it is generally very difficult to find staff at the best of times. This means that allowing some excess capacity in the system in terms of numbers of staff becomes very important. Action on recommendations made in previous

reports on human health resources...need to continue to be implemented and monitored for their effectiveness.”

The Panel is aware of the numerous reports and studies that have raised issues around the supply of health professionals over the past five years and of the many constructive recommendations contained therein. The Panel is also aware of the need to respect the mandate that it has been given. In formulating its final recommendations to the Minister, the Panel will reflect and draw upon this extensive body of work and will outline further recommendations in this area.

Concerning the shortage of nurses, the Nursing Effectiveness, Utilization, and Outcomes Research Unit, a collaborative project of the University of Toronto, Faculty of Nursing and McMaster University School of Nursing, released a report in October 2003 indicating that, despite an increase in the overall number of nurses in Ontario since 2000, Ontario will continue to suffer from serious nursing supply issues over the next few years.² In addition, the second progress report of the Joint Provincial Nursing Committee on the status of implementation of recommendations made pursuant to the 1999 Nursing Task Force is due to be released in late 2003 or early 2004. Among the recommendations addressed in this progress report will be those related to nursing supply and opportunities for education in nursing.

Infection control practitioners: It became very apparent during SARS that there is a shortage in the number of infection control practitioners (ICPs). These professionals are in short supply in the acute care sector, and, even more critically so, in long-term care, community care, and public health.

ICPs are responsible for the management and day-to-day implementation of infection control programs within a facility or organization, including infection surveillance, prevention, and control activities. ICPs can possess varying educational and professional backgrounds, including nursing, medicine, respiratory therapy, public health, and environmental health.

In 1985, as part of its overall work on hospital-acquired (nosocomial) infections, the US Centers for Disease Control considered the appropriate ratio of ICPs to acute care beds needed to support an infection surveillance and control program. The ultimate recommendation was a minimum practitioner-to-bed ratio of 1:250.³

In 2001, the Canadian Infection Prevention and Control Alliance recommended that this ratio be reduced to 1:150-175 acute care beds, and

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that the minimum ratio in the long-term care setting be 1:150-250. As well, the Alliance stressed the need for infection control expertise in the community and home care settings.⁴

In 2002, the Association for Professionals in Infection Control and Epidemiology (APIC) suggested a ratio of 0.8 to 1 ICP for every occupied acute care bed, or 1 ICP per 100 to 120 beds.⁵ Health Canada has been considering a similar standard of 1:115. The APIC study further recommended that staffing of ICPs must consider the number of occupied beds as well as include the scope of the infection control program, the complexity of the healthcare facility or organization, the characteristics of the patient population, and the unique or urgent needs of the facility and community.

A recent study suggests that almost 50% of Canadian acute care hospitals are not able to meet the 1985 standard [of infection control practitioners for every occupied acute care bed], and almost 80% do not meet the 2001 standard.

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Epidemiologists: SARS also highlighted the shortage of another highly skilled professional – the epidemiologist. In general terms, an epidemiologist is a person who studies and investigates how and why disease is spread. Epidemiologists work both in the field of communicable disease and non-communicable disease, such as cancer. In addition, there are both 'clinical epidemiologists' and 'field epidemiologists,' among others. A clinical epidemiologist studies identified patients with a disease, compared to the more academic pursuit of the causes and risks of developing a disease. A field epidemiologist investigates epidemics and outbreaks, and is a useful public health resource for implementing measures to protect and improve the health of the general public. The Panel heard that there is a need for epidemiologists, clinical epidemiologists, and field epidemiologists with skills specific to communicable disease control. These are required within both the public health and academic spheres. The Panel will draw on this information in preparing its final report.

In addition, there are a few physicians trained in infectious disease control who act as medical directors of infectious disease programs in Ontario and provide medical oversight and guidance to an overall infection control team. These individuals are referred to as 'hospital epidemiologists' in the United States. The Panel is aware that there is an undersupply of these physicians, and this may be partly due to the fee-for-service remuneration

system for physicians. Infection control activities are currently not included in the provincial fee codes used to reimburse physicians. One possible solution would be to seek an amendment to the Ontario Health Insurance Plan (OHIP) Schedule of Benefits to incorporate infection control activities. Another potentially more feasible solution would be to remunerate these professionals on an alternate payment basis, through targeted funding of infection control programs by the Ministry, as discussed in Chapter Two.

Community medicine: In its Report, the National Advisory Committee noted the acute shortage of both public health physicians and public health nurses, including the current high vacancy rate for Medical Officer of Health (MOH) positions in Ontario. This is consistent with what the Panel heard from the MOHs, as discussed in Chapter One. In addition, the National Advisory Committee Report has well-documented the lack of availability of training programs in community health, both as residency programs and as re-entry positions for practicing physicians.

The Ministry currently funds 20 family medicine re-entry training positions and 20 specialty re-entry training positions for currently practicing physicians. Community medicine is included among the specialties targeted for these re-entry positions. Physicians accepted for re-entry must return service in an under-serviced area. Re-entry positions are also eligible for the Ministry’s Free Tuition Program, whereby tuition costs are offset in exchange for a full-time return-of-service in an eligible community. The Panel suggests that re-entry positions targeted toward community medicine be increased in number on an incremental basis over the next three years, with clear targets based on need. As well, parallel tuition reimbursement programs must also be made available to enhance efforts at public health revitalization.

Microbiologists: The Panel learned of the critical shortage of laboratory microbiologists, particularly within the Ontario Public Health Laboratory (OPHL). The Panel is aware that steps have been taken to recruit an additional microbiologist. However, based on external comparative research undertaken to-date, we recommend that as an immediate measure, at least two additional microbiologists be employed above existing and planned hirings, while a more detailed resource assessment is completed by the Panel and included in the final report.

Occupational health and safety (OHS): The need for an increased awareness of and mechanisms to ensure health and safety within the

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healthcare environment became very apparent during SARS. The Panel heard that OHS is an important part of healthcare health and safety, together with such areas as infection control.

OHS is a legislated requirement imposed upon both employers and workers. OHS programs are intended to provide a safe and healthy workplace for employees by reducing workplace hazards, including the hazard of transmitting infectious diseases to and from workers. As such, a significant component of OHS programs in the healthcare setting must be infection control to minimize transmission risks. Specifically, employers are required to establish and put in place infectious disease control measures and procedures. Despite this, it became apparent during SARS that the role and scope of OHS in relation to infection control are not clearly defined.

The Panel heard that facilities and organizations frequently have difficulties meeting the requirements of the *Occupational Health and Safety Act*.⁷ Those in the field have indicated that OHS has become a low priority in healthcare, and that the mandate of OHS departments within, for example, hospitals, is often unclear.

Existing staff are overworked and frequently experience limited input into managerial decisions that impact health and safety. In addition, the Panel heard that OHS staff in smaller facilities and organizations often hold dual positions; for example, the same person might be both the infection control and OHS lead. This has often led to a blurring of the two roles, and to infection control becoming eclipsed by OHS responsibilities. As a result, staff will require support to carry out their infection control duties.

We heard suggestions that OHS receive a degree of dedicated support funding, given the day-to-day demands placed on those working in the field, rather than it falling under global budgets where it receives little attention as a low profile area.

“Organizational and individual healthcare worker health and wellness priorities need to be identified and supported as key provincial strategic goals.”

It was also suggested that minimum standards be set centrally concerning OHS staffing within various workplaces and the training that OHS staff receive.

As stated in one submission to the Panel, “Organizational and individual healthcare worker health and wellness priorities need to be identified and supported as key provincial strategic goals. Benchmarking instruments need to include health and safety leading indicators and outcomes. Health

and wellness best practices need to be identified, evaluated and promoted. Ministry funding should support the development/resources required to share and implement these evidence-based best practices.”

The Panel urges that a review of current OHS policies, procedures, and resources be undertaken, which can then be utilized as a first step toward determining best practices in OHS, particularly as OHS interfaces with infection control.

Recently, the Ontario Hospital Association sponsored a Safety Group for its hospital members as part of the Workplace Safety Insurance Board’s (WSIB) Safety Groups Program. The goals of a Safety Group are to pool resources, allow for mentoring and sharing of best practices, and facilitate a collective approach to workplace health and safety. The WSIB program provides financial incentives for workplaces to develop sustainable health and safety programs, and rewards demonstrated achievements.

Other recommendations to the Panel urged that healthcare managers and administrators become more aware of their OHS obligations, and that compliance with the *Occupational Health and Safety Act* and the *Health Care and Residential Facilities Regulation*⁸ be made a top priority. In this regard, the Panel urges the Ontario Hospital Association and other professional organizations to provide assistance, support, and profile to occupational health and safety issues within their membership. At present, compliance with these pieces of legislation is inconsistent, primarily due to a shortage of both OHS staff and inspectors.

Many advocated for improved links between OHS and infection control. Respondents stated that there is a need to “create opportunities for IC and OHS to combine efforts” and that “Reliance on infection control to the exclusion of occupational health and safety appears to be the prevalent approach in health care and, while this approach may protect patients, it is too narrow a focus to protect staff from the hazards of their work.”

At the same time, concerns were also raised about marrying OHS and infection control too tightly, and that controlling the spread of infection should be seen as a patient safety issue as much as an OHS issue. Regardless of which approach should be taken, it was clear that there are mutually beneficial opportunities for increased collaboration between OHS and infection control.

The *Occupational Health and Safety Act* mandates the creation of Joint Health and Safety Committees (JHSCs). The Panel heard that infection control practitioners and public health personnel should be used as a resource by JHSCs, with infection control integrated into OHS programs

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and protocols within health care workplaces. This way, OHS could potentially be used as a compliance monitoring tool for infection control. The JHSC within each facility and institution should also become an active participant in organization and planning around infectious disease emergencies.

Balancing patient care with employee safety: During the SARS outbreak, healthcare staff across the board worked under demanding conditions to provide the necessary patient care. However, the Panel was made aware of a small number of employees who refused to work on the basis of perceived excessive personal risk. We appreciate the need for a mechanism to mediate staff and employer concerns such as these. Under the OHS legislative regime, there is a right to refuse work or to engage in a bilateral works stoppage under certain circumstances. However, the legislation does not contemplate the complex ethical concerns that arise in the situation of a refusal to work by healthcare employees. The Panel has commissioned an ethical opinion on this issue, which will be reflected in the Panel's final report.

Nevertheless, at a basic level, there is a need to balance two independent duties: the duty of a healthcare worker to care for his/her patient, and the duty of the employer and the government to ensure a safe working environment.

Personal protective equipment: The Panel heard that the specific role of OHS in relation to personal protective equipment (PPE) must be enhanced. Currently, a worker who is required to wear PPE must be trained in its proper use and be properly fitted with the equipment. These are legislative responsibilities of employers, which generally fall to OHS departments. OHS should therefore be involved in any decisions concerning the procurement of PPE, to help coordinate the amount and type of supplies

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required. In some instances during SARS, hospital materials management departments were left to acquire PPE, without consulting OHS, which was ultimately responsible for ensuring that PPE were properly fitted and used.

Issues concerning PPE were a significant overall component in the submissions made to the Panel. We heard that future steps are required to ensure adequate supplies of relevant PPE for all healthcare workers,

including those in primary care and community-based positions. As stated in one submission “Primary care providers were very poorly positioned to deal with this. They had no easy access to personal protective equipment and no source of funds to support this significant change.”

Particularly related to N95 masks, the Panel heard that proper fitting should be more readily available and fit-testing activities should be better funded. Many workers wore ill-fitting masks during SARS because they had not been correctly fitted prior to the outbreak due to a shortage of qualified personnel to complete the fit-testing. Others found the masks difficult to wear for long periods, from comfort and functional points of view. As an overlay to the mask fitting dilemma were two questions: first, whether N95 masks were most effective in preventing the transmission of SARS, or whether a higher grade of mask (N97 or N100) was optimal; second, whether a simply surgical mask would have been sufficient, as some evidence is beginning to suggest.

In one respondent’s view “Hospital emergency room staff and ICU staff were required to wear personal protective equipment during all working hours. This was very difficult on staff physically, emotionally and psychologically. Sensitivities occurred to N95 products, difficulty breathing, headaches, fatigue, emotional breakdown etc.”

In addition, regardless of SARS, it is clear that training concerning the proper use of PPE must be made more available across all healthcare sectors: “The use of personal protective equipment, how to put it on, and how to take it off must be trained and retrained on a regular basis.” Some respondents questioned whether full PPE was required in all instances: “Full personal protective equipment (assuming it is actually necessary for a droplet infection such as SARS) is much too onerous to use as a routine.”

Finally, further research is needed to determine the efficacy, necessity, comfort, and health effects of using PPE. Based on this, as well as international standards and practices with respect to using PPE, the Ministry should support the continued development of best practice guidelines for PPE, in conjunction with the appropriate expertise.

Psychological and social support: Many respondents urged that the province broaden psychological and social support mechanisms for healthcare workers. OHS frequently rose to the task and filled this role during SARS; however, these efforts stretched OHS staff beyond their capacity.

The Panel recommends that psycho-educational programs be developed to better prepare staff to cope with the psychological consequences of a

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health emergency such as SARS. In addition, comprehensive psychological support programs are required that include streamlined access to Employee Assistance Programs and also provide support to family members of healthcare workers.

In the event of a future health emergency, initiatives such as help-lines should be rapidly developed and made available to healthcare workers and their families. These were set up by certain facilities and at least one

“Because of its propensity for attacking healthcare providers, SARS introduced the concept of occupational risk to nurses with great vehemence.”

professional organization during SARS. As stated by one respondent in relation to nurses, “Because of its propensity for attacking healthcare providers, SARS introduced the concept of occupational risk to nurses with

great vehemence.”

Staffing strategies: SARS shed a spotlight upon a problem that has existed in the health professions, particularly nursing, for the past decade – the use of a high proportion of staff that is employed casually, rather than on a full-time or ‘regular part-time’ basis. Full-time and ‘regular part-time’ work usually involves a relatively fixed schedule and an agreed number of hours, while ‘casualization’ involves the systematic replacement of full-time and part-time staff with staff employed on an ad hoc basis. As stated in one submission to the Panel, “Move towards a much higher ratio of full-time, permanent staff. Part-time/casual staff work at multiple sites, and may contribute to the spread of disease.”

The Panel heard that the problem of casualization is most severe in the long-term care and community care sectors, but remains a concern across all segments of health care. Those employed on a casual basis tend to work at multiple sites, raising the specter of healthcare workers transmitting a disease. Although there was no definitive incident of such transmission during SARS, many submissions to the Panel expressed concern that it could easily have happened, and that the risks are too high.

In addition, the Panel was told that the rule of working at one facility only, a rule imposed during SARS, meant that a number of institutions that had high rates of casualization lost much of their staff. The flip side to this was that staff working casually found their hours slashed by the ‘one facility’ rule. We heard that it is only feasible to limit staff to one facility during an infectious disease outbreak when full-time employment of healthcare workers is maximized. Until that comes to pass, “The focus should be on limiting risk rather than limiting employment.”

The Panel received many suggestions that no more than 30% of staff should be casual staff, that full-time positions should be increased, and that the use of agency staff should be limited as much as possible. The Panel has commissioned further research into the causes of and mechanisms to reduce casualization. This will be reflected in our final report. Ultimately, the Panel has concluded that reducing the rate of casualization, regardless of the theoretical impact this may have on infection control, is instrumental in improving the continuity of care of patients, improving workplace satisfaction and loyalty, and building cohesion and core capacity back into the system.

The Panel also recognizes that some healthcare professionals were not used efficiently during SARS; one example is nurse practitioners. Creative staffing models must be developed so that such professionals are used to the full scope of their practice.

Compensation disparities: During SARS, many healthcare workers lost income as a result of being restricted to working in one facility. This problem is tied directly to the issue of casualization noted above. Later on during the outbreak, the province offered income compensation package. However, prior to announcing and implementing the SARS Compassionate Assistance Program for healthcare workers, staff suffered great immediate stress related to loss of income. In addition, several institutions were compelled to use agency staff during SARS because they had lost a large proportion of their regular staff to quarantine, illness, or the one-facility restriction. As well, the Panel has become aware of circumstances in which agency staff were compensated at a substantially higher rate, up to double that paid to regular staff, despite the fact that they were performing the same tasks and working alongside one another.

This experience contains two lessons for the healthcare sector. First, and most obvious, is the need for ongoing efforts to ensure a stable and adequate supply of healthcare professionals. Second, is the need for organizational and provincial contingency plans to address issues of redeployment and remuneration *in advance* of an outbreak.

Deployment during a crisis: The Panel heard that there was confusion concerning how to effectively deploy the limited human resources available during SARS. Many facilities were overwhelmed due to staff being off sick or quarantined, and required a strategy whereby they could cope by drawing on the pool of existing healthy staff. Certain facilities implemented viable strategies during SARS; however, many called for a standardized process as part of overall contingency planning, or, at a bare minimum,

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guidelines concerning emergency deployment of staff.

One new initiative, developed by the Registered Nurses Association of Ontario (RNAO) in collaboration with the Registered Practical Nurses Association of Ontario (RPNAO), is known as VIANurse (Voluntarily Immediately Available Nurse). VIANurse is an electronic registry, maintained confidentially on the RNAO's website, of RNs and RPNs who have indicated their availability to be deployed on a voluntary basis to an Ontario healthcare facility that the Ministry has designated as being on emergency status. On the basis of a simulation carried out in October 2003, it appears that VIANurse will be a useful tool in future emergency deployment of RNs and RPNs.

The Panel learned about additional short-term proposals that could be employed during an outbreak which involved setting up facility-based registries or logs of staff who work at various sites, including physicians with privileges at more than one institution and residents. A number of institutions implemented similar strategies during SARS, which may have aided with staffing requirements and/or reduced the potential transmission risk between sites: "Our facility now keeps a log of the other healthcare facilities that our staff work at so in the event of another outbreak, we know who works where." Many stressed that given the highly mobile nature of healthcare workers, a mechanism should be in place to track secondary places of employment during an infectious disease outbreak.

Other proposals heard by the Panel related to rapid but limited licensing of healthcare professionals. This could apply to out-of-province professionals wishing to assist during a crisis, who would be licensed on a conditional basis. Such licenses could be restricted by location, time of validity, and practice area. The Panel is aware of a number of processes to accomplish licensure, which were created in response to previous emergencies, including SARS. However, these processes must be put in place by *all* regulatory colleges and be consolidated so that they may be readily accessed by healthcare facilities and organizations when needed. This consolidation could be accomplished by the Federation of Health Regulatory Colleges of Ontario together with relevant healthcare providers. This could also apply to residents who have not completed their full training, who could be licensed to work extra on-call shifts.

Workforce protection: Within healthcare settings, there is often an expectation that employees attend work despite the fact that they may be ill. For instance, some institutions reward employees for maintaining near perfect attendance; yet this may result in staff transmitting infectious diseases to others. Sick time tends to be very high for nurses compared to

other occupations, most likely due to the difficult nature of the work performed and the level of burnout in the profession. As stated by one professional association, "A full review of Health Human Resource policies should occur in light of our experience with SARS. Practices such as 'perfect attendance' awards must be re-evaluated. This is going to be quite a cultural change for hospitals, where historically employees came to work regardless of their personal health." Such practices can undermine OHS principles, and place both co-workers and patient populations within facilities and institutions at risk of possible infection by healthcare workers.

The Panel heard that management within healthcare facilities and organizations need to shift the messages they often send to staff in this regard. In addition, OHS programs could incorporate staff education about the hazards of coming to work while ill.

We also heard some suggestions that influenza vaccinations be made mandatory for all healthcare workers, while others encouraged greater compliance with existing influenza vaccination campaigns. It would help to intensify efforts at promoting vaccination campaigns in all healthcare workplaces. This could reduce the confounding symptoms of influenza relative to other febrile respiratory illnesses such as SARS, and reduce the transmission of influenza, which itself takes a large yearly toll on employees as well as patients.

Residents and students: Residents are medical graduates who are completing post-graduate training necessary to become a family physician or a specialist. Residents are the frontline physicians in institutions that are also teaching facilities, and as such are a vital and integral part of the functioning of those institutions. Residents play a key role in assessing and managing patients under the purview of staff physicians.

The Panel heard that residents must have access to the same benefits and services afforded to other employees of healthcare facilities and organizations, including access to personal protective equipment and education on infection control. As well, concerns were raised about the possibility of residency training being interrupted as a result of quarantine or being removed from certain healthcare settings during an outbreak. Should this occur, residents might be prevented from writing licensing examinations and thereby delayed from entering into the physician workforce. It was recommended that policies be developed to minimize or avoid disrupting the training of residents during an infectious disease emergency.

We also heard concerns about the effect that SARS had on students in

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healthcare education programs. Many of these students are present in healthcare facilities on a daily basis, engaged in clinical training that is crucial to their ultimate ability to work in the healthcare field. Some students were delayed in their educational programs because they were removed from clinical placements during SARS. Recommendations were made to the Panel that methods should be developed so as not to exclude students entirely during an infectious disease outbreak. These could include permitting students to remain in the clinical setting during an infectious disease outbreak based on their level of training and experience, and ensuring that all students receive basic infection control training before starting any clinical placement. As stated by one respondent, "For healthcare providers whose educational program includes a clinical practice component, these concepts should have been covered before the student ever enters the health care environment." This concept will be explored more fully in our final report.

Recommendations

Enrollment

42. The Ministry, together with the Ministry of Training, Colleges and Universities and professional bodies, should continue to support new initiatives to increase the enrollment numbers of key health professions, including medicine, nursing, and respiratory therapy. In addition to work already underway, attention should be given to enhancing training opportunities in epidemiology, medical microbiology, occupational health and safety, community medicine, critical care, emergency and public health. Plans for increased training capacity in these key areas should be in place for the 2005/2006 academic year and reported publicly.

Staffing Strategies

43. The Ministry must immediately fund a minimum of two additional Medical Microbiologist positions for the Ontario Public Health Laboratory.

44. The Ministry, in collaboration with professional regulatory colleges and professional associations, should begin to develop new models for the efficient utilization of existing health human resources during a health emergency. As part of this process, consideration should be given to creative staffing models, and using professionals to their full scope of practice.

45. The Ministry should continue to establish sustainable employment strategies for nurses and other healthcare workers to increase the availability of full-time employment. Progress reports should be issued on an annual basis with a final goal of greater than 70% full-time employment across all healthcare sectors by April 1, 2005.

Occupational Health and Safety

46. The Ministry, together with the Ministry of Labour, should initiate a joint review of current Occupational Health and Safety (OHS) policies, procedures, and resources in the healthcare sector. This should be completed by June 30, 2004.

Informed by the results of this review, the Ministry, the Ministry of Labour, healthcare providers, and relevant professional organizations should look to developing best practices in OHS, with a view toward defining the role of OHS during an infectious disease outbreak and the most appropriate interface between OHS and infection control programs.

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47. The Ministry, together with the Ministry of Labour and professional associations, should support the ongoing development of best practices for the use of personal protective equipment by December 31, 2004. The Ministry should also ensure that, in conjunction with healthcare provider organizations, adequate vehicles are in place to educate appropriate groups of healthcare workers as to the proper use and the associated evidence behind such uses of personal protective equipment. In addition, Ontario should support both public and private sector research initiatives with respect to the design, efficacy, and adverse effects of personal protective equipment.

Psychological support

48. The Ministry, in collaboration with professional associations and relevant experts, should develop a plan for the development and use of psycho-educational programs in emergency preparedness training. These programs should address the following:

- a. Preparing staff to deal with the consequences of emergency situations, including anxiety and depression.
- b. Developing coping skills.

The programs should be developed by summer, 2004.

49. The Ministry, in collaboration with professional associations and healthcare employers, should ensure the availability of psychological support programs for healthcare workers as part of a robust plan for emergency management. These programs should:

- a. support all frontline workers
- b. allow clear access to Employee Assistance Programs and other resources such as psychiatry
- c. deal with issues of isolation and stigmatization
- d. contain proactive approaches to manage work fatigue and workload stress.

Coordinated planning in this area should be initiated by February 2004.

Compensation

50. The Ministry should formalize, as part of its contingency planning for health emergency plans, mechanisms to quickly put into place programs, such as the SARS Compassionate Assistance Compensation Program for Healthcare Workers, to provide compensation for income lost as a result of being unable to work while ill, quarantined, or restricted to one facility as the result of a health emergency.

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