

Addressing the need for vaccine supply during influenza pandemics

The threat of an influenza virus pandemic will present national health officials and vaccine manufacturers with an *"immediate and perhaps overwhelming challenge"* regarding influenza virus vaccine supply, contends Dr David Fedson from Seragy Haut, France. Nevertheless, *"failure to plan in advance an effective and equitable system for the global supply of pandemic vaccine is politically and morally unacceptable"*, he states.

Vaccine manufacturers typically sell their influenza vaccines through public health contacts or directly to distributors, physicians, employers or institutions, responding to a *"steady increase in market demand by increasing vaccine production"*, says Dr Fedson. However, under the threat of an influenza pandemic, this approach to complying with market demand will *"encounter serious difficulty"*, he contends. Several steps must be taken to address the issue of vaccine supply during influenza pandemics, including the following points, Dr Fedson notes.

- The use of reverse genetics to prepare seed strains for vaccine production in interpandemic and pandemic years.
- Determination of characteristics of candidate 'pandemic-like' vaccines and vaccination schedules.
- Negotiation of a protocol for global registration of vaccines for use during pandemics.
- Expansion of vaccination recommendations and initiation of studies regarding the health and economic effects of influenza and the benefits of vaccination.
- Documentation of the macroepidemiology of influenza vaccination and development of 5-year rolling forecasts for future vaccine demand.
- Negotiation of international political agreements to ensure the sufficient production and equitable distribution of vaccines during pandemics.

Dr Fedson asserts that the planning effort will require the involvement of experts in the areas of influenza virology, epidemiology and surveillance, in addition to experts in economics, law and international politics. He concludes that, while the *"international dimensions of bioterrorism"* are forcing nations to plan for a rapid and coordinated response to potential threats, *"there are far more compelling reasons"* for developing plans to mount a similar response to the *"undeniably real threat of pandemic influenza"*.