From:
NR
Vaccines Division
Covid Public Health
Directorate
02 November 2020

Cabinet Secretary for Health and Sport

UPDATE ON STRATEGY AND DELIVERY FRAMEWORK FOR COVID 19 VACCINATION

Purpose

1. To provide an update to the Cabinet Secretary on the policy and delivery approach to COVID-19 vaccination as requested.

Priority

2. Routine.

Background

1. Officials provided advice on 15 October seeking early views on the proposed policy and delivery approach for a COVID-19 vaccine programme. In your response of 28 October you indicated that you would like to see more detail on :
   - Clinical input to the policy
   - Outcomes, timescales and risks
   - National Delivery Routes (please note detail on these is provided in the delivery framework)
2. This information is provided below in summary, in advance of the Deep Dive planned for Friday 6 November. Officials anticipate that the Deep Dive will provide an opportunity to share detailed thinking, particularly on delivery to ensure the Programme meets Ministers' expectations.
3. In your comments you also indicated that you would like to see a revised delivery framework. Following the advice provided earlier in October, the framework has been updated further. It will be accompanied by a practical framework, "Once for Scotland: Service Delivery Model Guide", to be used at a local level. The latest draft of the framework is attached separately to this submission.

Proposed Outcomes

4. Concrete information about the characteristics and effects of the front-running COVID-19 vaccines is not yet available. We anticipate this detail becoming available in mid to late November at the earliest. In the meantime, for planning purposes, we are working from the following assumptions:
   - While full information on efficacy is not available, it is likely that the initial vaccine(s) will not completely prevent transmission, but rather reduce severity or prevalence. At present it is anticipated that 2 doses of a vaccine will be required to produce an immune response.

- We anticipate receiving only small volumes of the vaccine initially, with volumes increasing over the first few months. It will therefore be necessary to identify priority groups to receive the first vaccines.
- Vaccine candidates have not yet been tested on under 18s and we do not anticipate deploying the vaccine to children at this stage.

5. On this basis the key policy outcomes of the programme are proposed as:
   - **The most vulnerable people are protected from COVID-19**, through prioritisation for vaccines that reduce severity or prevent transmission;
   - Once adequate vaccines are available, **the wider population receive vaccines**;
   - Once efficacy of the vaccines is established people can begin to resume **as close to normal life as possible**. Note that we cannot yet be sure if the first vaccines will enable removal of restrictions.

6. In identifying priority cohorts, officials have been informed by the latest advice from the Joint Committee on Vaccinations and Immunisations (JCVI). The current interim advice is to prioritise by age and clinical risk, beginning with older people in care homes, and those working in care homes, then moving to health and social care workers, other older people and those at clinical risk, before turning to the wider population. This advice will be finalised when more information about the vaccine candidates is available for scrutiny.
7. This approach is recommended by the programme board, which itself has considerable input from a number of clinical experts who attend:
   - Deputy Chief Medical Officer
   - Senior Medical Officer – Immunisations
   - Public Health Scotland's Clinical Director
   - British Medical Association
   - Professor Sir Lewis Ritchie

8. We have also shared our proposed approach with senior officials including the National Clinical Director, Scottish Government, and with the COVID-19 Advisory Group.

Proposed Timetable

9. For planning purposes the Programme is using the 'best case' delivery date for initial doses of the vaccine, which would mean deployment would be from 2 December at the earliest. This is dependent on success in clinical trials of one of the 2 front running vaccines procured by the UK Government on a 4 nations basis. At this stage we anticipate at minimum an equitable population-based share of any doses available at a UK level.
10. UK Government officials have indicated that Scotland will receive 8.28 per cent of available vaccines after an initial quantity is reserved for the Crown Dependencies and we understand that this will be formally confirmed during week commencing 2 November.

11. If the delivery and deployment assumptions hold this would support programme delivery to priority cohorts as follows:

Priority Cohorts	Wave 1 Dec 2020-Jan 2021	Wave 2 Feb 2021 – March 2021	Wave 3 Pending supply
1. Care homes residents & staff	Older adults' resident in a care home and care home workers		
2. Over 65 years and living at home	All those 80 years of age and over	All those 75 years of age and over All those 70 years of age and over All those 65 years of age and over	
3. Health and social care workers	Health & social care workers		
4. At risk individuals under 65 years of age		High-risk adults under 65 years of age Moderate-risk adults under 65 years of age	
5. Between 50 and 65 years of age			All those 60 years of age and over All those 55 years of age and over All those 50 years of age and over
6. Rest of the population			Rest of the population (priority to be determined)

Workforce Considerations

12. A potential key constraint in delivering the programme will be the clinical and support workforce for delivery. Work has been undertaken both to identify the size required and additional potential sources to bolster the current workforce delivering extended seasonal flu to ensure a long term sustainable approach.

13. With regards to the size of the workforce, if we are to maximise vaccine delivery in line with the projected rate of supply in December and January, then the expectation is that at least 3,000 WTE staff will need to be involved in both administering and providing administrative support to the programme, per working day. This is based on the estimated delivery volumes for the two UK COVID-19 vaccines and extrapolation of the workforce requirement for the delivery of flu vaccines (approx. 1,200 WTE for peak flu). This would give us the capacity to administer a maximum of 112,000 doses per day assuming 330 productive minutes (i.e. rate of vaccination, number of productive minutes per day etc.) This compares with around 45,000 vaccinations per day for peak flu vaccine delivery.
14. However, it should be noted that the projected daily supply of 112,000 vaccine doses (including 20% wastage) is scheduled to last for 6 weeks, after which there is a marked drop in supply (although it should be noted updated information on supply will become available during this period). Since there will be an ongoing foreseeable need for a vaccinations as new, more effective vaccines come on stream, there is benefit in building a more sustainable long term vaccinations workforce and spreading WTE requirements more evenly over the first and second waves of vaccinations to avoid massive frontloading of staffing requirement.
15. This would however mean not delivering the maximum 112,000 doses of vaccine during that initial 6 week period, which could itself attract criticism, given the centrality of vaccine delivery to securing a longer-term post pandemic future. Nevertheless, it should be noted that the total anticipated supply over that 6 week period is 4.2 million doses (5.8m cumulative by Feb 18), a total 6.4 million doses is due to be supplied to Scotland by March 29. Based on current estimates, completion of wave 3 is scheduled for May 24 (3.86 million people), with a total target population assumption of 4.5 million.
16. It should be noted that whilst we are aware that boards were planning on increasing vaccinator capacity, a workforce supply of 3,000 WTE staff cannot be assured at this stage. There are additional workforces, in particular dental and community pharmacy, which have been considered for the delivery of Covid-19 vaccinations.
17. Neither are likely to provide significant additional numbers. The dental workforce is increasing its work currently as restrictions have been lifted on the use of dental work, and both for them and for community pharmacists and pharmacy technicians the form in which the Covid-19 vaccine comes in as multi-dose vials that require drawing up of the vaccine and potentially requiring the addition of saline creates a more complex practice. Training will be provided, but it is unlikely these groups will provide significant input into the first wave.
18. Healthcare Support Workers (HCSWs) of which there are 11,469 WTE available in Scotland offer a stronger opportunity. However, the deployment of HCSWs would be subject to specific limitations, or additional supports being implemented.

19. HCSWS:
    - Cannot acquire informed consent;
    - Can only vaccinate in line with the requirements of a Patient Specific Directive or National Protocol (being developed following amendments to Human Medicines Regulation (2012); and
    - Are not currently trained to prepare vaccines and would require training to do this element in order to be vaccinators.

20. The recommended ratio of no less than 30:70 Registered Healthcare Professionals to HCSW, this to ensure adequate supervision.
21. In addition, GPs have in principle agreed to help with the administering of vaccinations to vulnerable groups and are particularly likely to feature in the first part of the programme, delivering vaccines to the most vulnerable.
22. Finally, it should be noted if current planning assumptions hold, there will be interaction with the on-going delivery of seasonal flu. Initially there is a risk of competing priorities across the system, in that the same workforce will also being doing seasonal flu.
23. Our current Flu Model projects between 100-200 staff continuing to delivering flu vaccinations into the new year. In order to minimise workforce pressures, care home vaccinations, GP and district nursing vaccinations of the most vulnerable in the community, and peer-to-peer vaccination of the health workforce should be prioritised.

Risks

24. This approach to COVID-19 vaccination involves a number of strategic policy risks, not all of which can be fully mitigated:
    - First of all, hope may raise unreasonable expectations of the front running vaccines. The first vaccines the UK has access to may not be completely effective and may reduce severity rather than preventing infection. Officials understand that both the front running vaccines produce an immune response, but more data from clinical trials will not be available until later in 2020. If less than 50 per cent effective the vaccines may not be suitable for use at all. Conversely if very effective, demand may outstrip supply.
    - Delivery of vaccine doses may not be as predicted. Issues with large scale manufacture of new vaccines and transport issues related to EU exit could affect availability. The timetable for initial delivery could slip into 2021 or even later, or we may not receive the quantities scheduled.
    - The vaccines may have adverse effects not picked up in earlier clinical trials. It is not uncommon for this to be the case with new vaccines. In the case of COVID 19 vaccines even very rare or small adverse effects could have a large effect on public confidence.
    - We anticipate significant and co-ordinated misinformation and 'anti vax' campaigns against COVID-19 vaccination resulting in increased hesitancy. There may be a public perception that vaccine development has been rushed with assumptions about compromised safety. Resulting low uptake, particularly amongst the first, most vulnerable cohorts, is a risk.

25. The FVCV Programme Board is also regularly reviewing delivery risks and mitigation, including:
    - The workforce risks set out above;
    - Ensuring adequate digital and data solutions. The national programme for COVID-19 is developing a national vaccination application to capture patient information at the point of administration and building on the current data network to improve information flows. In addition several new products for scheduling have been assessed however given the timescales and complexity we are now focussing on an alternative solutions for scheduling patients at a national level for use by all boards by reuse of existing board systems currently in use for contact tracing. These investigations are rapidly developing our understanding of the technical enablement required for the national delivery plan for COVID-19 vaccinations

26. High scoring risks are shared in the weekly Programme status report.

Recommendation

27. It is recommended that you:
    - note this further additional information and the attached updated draft delivery framework; and
    - provide an indication of further information that would be useful for the forthcoming Deep Dive scheduled for Friday 6 November.

NR
Vaccines Division, Covid Public Health Directorate
I&S

Copy List:	For Action	For Comments	For Information		
			Portfolio Interest	Constit Interest	General Awareness
First Minister					X
Deputy First Minister					X
Minister for Public Health			X		

DG Community Health and Social Care
Chief Medical Officer
Deputy Chief Medical Officer
National Clinical Director
Chief Scientist
Chief Pharmaceutical Officer
Chief Dental Officer

Chief Nursing Officer

NR

Heather Campbell
John Connaghan
NR
Richard Foggo
Derek Grieve
NR
Aidan Grisewood
David Hutchison
NR
Caroline Lamb
Steve Lea-Ross
Elizabeth Lloyd
NR

Vaccines Division, Covid Public Health Directorate
Covid-19 Health Comms
Covid-19 Policy
Health Group Hub