National Influenza Vaccine Summit Presentation

May 17, 2010

Nima Farzan
VP, Marketing
Novartis Vaccines, USA

NOVARTIS

Novartis 2009 Performance

- Supplied 27 million doses of trivalent seasonal influenza doses to US market
  - Shipments began in early August, weeks ahead of schedule
- Largest supplier of H1N1 vaccine and vaccine components to US government
  - Shipments to US began in end September
- Significant improvements to manufacturing infrastructure
  - New production facilities in UK
  - Ribbon-cutting on newest vaccine plant in Holly Springs, North Carolina - first cell culture-derived influenza vaccine manufacturing plant in the US

2

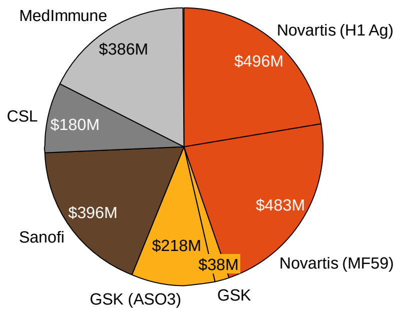
NOVARTIS

H1N1: Novartis received 45% of initial US bulk orders

Distribution of HHS Orders for H1N1 (bulk material)
$ Millions

Total = $2.2 B

($1.5B Antigen, $0.7B Adjuvant)



Largest provider of US H1N1 bulk material

Delivered 100% of United States Government orders

No product recalled

No product returned for quality related issues

Largest adjuvant stockpile source for potential future pandemics

Source: https://www.medicalcountermeasures.gov/BARDA/MCM/panflu/factsheet.aspx

NOVARTIS

2010 Outlook

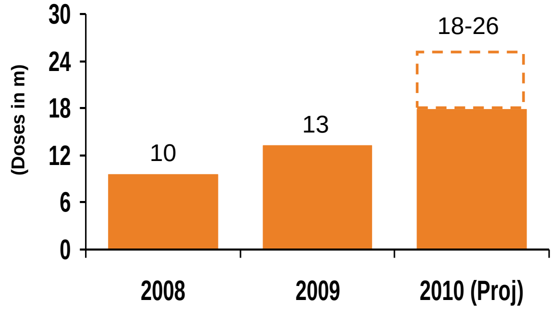
- Continuing to see strong demand for this upcoming season
  - Commitments made earlier than in previous years, no longer taking direct orders on website
  - Limited requests for order cancellations
- Seeing low yields on all 3 strains
  - However, new manufacturing facilities in UK have double the capacity of old facilities
- Expect to deliver 35-40 million doses to US market
  - Deliveries to begin in August and continue through early November
  - Primarily Fluvirin, but also Agriflu
  - ~75% of demand for MDV presentation
  - Final volumes dependent on final yields

2

NOVARTIS

2010 Retail Growth Expected to Exceed 30% Growth Rate of 2009

Estimated Flu Doses Administered (Retail Channel)



Retail Vaccination Benefits

- Convenience
- Cost effective
  - In a published model, the mean cost of vaccination was lower in mass vaccination ($17.04) and pharmacy ($11.57) than in Drs office ($28.67)[1]

1. Prosser LA, O'Brien MA, Molinari NA et Al. Non traditional setting for influenza vaccinations of adults: costs and cost effectiveness Pharmacoeconomics 2008; 26:163-78.

Opportunities and Challenges for this Flu Season

Opportunities

- Universal recommendation driving increase in immunization rates
- H1N1 strain included in trivalent seasonal vaccine
- Continued growth in immunizations at alternate venues such as retail pharmacies

Challenges

- Convincing those who received H1N1 vaccine in early 2010 to revaccinate with trivalent seasonal flu vaccine this fall
- Demand for early vaccinations due to 2009 experience – need to emphasize vaccinations through December and into Jan as well
- Risk of safety concerns from public from Australia situation
- H1N1 fatigue

Novartis Influenza Pipeline

Fluad®

- Adjuvanted flu vaccine
- Approved in EU, not yet licensed in US

OPTAFLU®

- Cell culture flu vaccine
- Potentially faster production times
- Will be manufactured in Holly Springs, NC
- Not yet licensed in US

NOVARTIS