Q1: What are the reasons children are less well vaccinated in the United States, compared to other countries (% coverage is clearly less than recommended for preventing outbreaks)?

A: Children in the U.S. are generally well vaccinated. The most recent child vaccination assessment for two year old children indicated vaccination rates for most childhood vaccines were at 90% or greater, and fewer than 1% of children had received no vaccines (see <https://www.cdc.gov/mmwr/volumes/66/wr/mm6643a3.htm>). However, immunization coverage is not uniform across the United States, or even within states. There are pockets of under-vaccination, such that outbreaks still occur, though they are less common than 10 or 20 years ago, particularly true of measles and varicella. Mumps outbreaks appear to be explained in part by waning immunity, hence the recent recommendation for a third dose of MMR vaccine for those at risk of mumps in an outbreak (see <https://www.cdc.gov/mmwr/volumes/67/wr/pdfs/mm6701a7-H.pdf>). Pertussis outbreaks have increased in recent years because the acellular pertussis vaccine’s duration of immunity is less than that of the older whole cell pertussis vaccine. However, overall disease incidence is stable or decreasing, because of high coverage in children, as discussed in today’s program.

Q2: Can you comment on the importance of school immunization requirements in reaching disease reductions and elimination goals in the US?

A: School immunization requirements have been widely accepted as very important in raising immunization rates, and thereby reducing vaccine preventable diseases’ incidence in the United States. The Task Force on Community Services reviewed data on such requirements and their summary is at <https://www.thecommunityguide.org/sites/default/files/assets/Vaccination-Requirements-for-Attendance_1.pdf>.

Q3: Can I see a patient's vaccine record from another state through [its Immunization Information System] IIS?

A: Such ability to access vaccine records from another state’s IIS depends on the agreements your state has, if any, with the neighboring state(s) about access to their IIS. CDC’s IIS standards state such data exchange should occur. To contact your state’s IIS, or another state’s IIS, see the contact list at <https://www.cdc.gov/vaccines/programs/iis/contacts-locate-records.html>.

Q4: Can you provide any advice to other countries who are interested, yet timid, in establishing school immunization requirements?

A: CDC’s webpages on this topic may be of assistance: <https://www.cdc.gov/vaccines/imz-managers/laws/state-reqs.html>, and <https://www.cdc.gov/phlp/publications/topic/vaccinationlaws.html>. Inquiry of the California state immunization branch may be helpful, given California recently eliminated all but medical exemptions in their state school entry immunization requirements. Their staff can be reached at

**California Department of
Public Health
Immunization Branch**
850 Marina Bay Parkway
Richmond, CA 94804
(510) 620-3737

 immunizationbranch@cdph.ca.gov

Q5: Are there programs that provide vaccines for the college age population, since the VFC program is not providing vaccines for this populations?

The Vaccines for Children (VFC) program covers persons through 18 years of age, which can include many persons entering post-secondary school institutions. In addition, students should ask their school if there is financial assistance, or relatively inexpensive insurance provided by their school to allow immunization payment.

Q6: Could you speak a little on the American Indian/Alaska Native (AI/AN) populations and the current efforts that are being made to increase immunization rates? Do you know of any best strategy to reach the AI/AN population?

Q6: These can be accessed at the Indian Health Service (IHS) website at <https://www.ihs.gov/Epi/vaccine/projects/>. Examples include improving influenza vaccination of health care workers in Indian Health Service related facilities, and better exchange of immunization records between IHS and state IIS.

Q7: Since the decrease from 3 doses to 2 doses of HPV vaccinations in the age group of 9-14 has there been an increase in full Immunization for HPV vaccine?

A7: At the end of 2016, the recommended HPV vaccination schedule was changed from a 3-dose to a 2-dose series for immunocompetent adolescents initiating the series before their 15th birthday. Three doses are recommended for persons initiating the series at ages 15 through 26 years and for immunocompromised persons (2). The recommendation allows for 1 fewer dose and one fewer visit to a health care provider, which might encourage providers to promote, and parents to accept, vaccination at the recommended age of 11–12 years. Although it is too early to assess the direct impact of the revised recommendation on vaccination practices, when applied retrospectively, the HPV up-to-date coverage was 6.3 percentage points higher than the ≥3-dose HPV coverage. CDC will provide updated estimates on HPV up-to-date coverage, which includes adolescents who complete the series based on two or three dose schedules, when the 2017 NIS Teen data are published in 2018.

Q8: Can you expand more on the differences between IIS and coCASA?

A8: CoCASA began as a software tool used to manually enter vaccine dose data when reviewing patient charts. Before IIS was a widespread solution for assessing vaccination coverage at the provider level, coverage assessments performed on AFIX site visits involved entry of vaccine data from a random sample of patient records (50 records was recommended) into CoCASA. CoCASA has various report functions built into it (reports of coverage percentage, missed opportunity percentage, and lists of patients that are not up to date, for example). The reports were then run on the data entered from the random chart pull.

Later, enhancements to CoCASA allowed IIS data to be uploaded, so it was possible to run CoCASA reports much quicker and on entire patient populations. CoCASA is still used in this way relatively frequently today.

More and more IIS now have functionality to run the types of reports that CoCASA runs. This has the advantage of (a) saving time, (b) being available for use by provider staff, and (c) incorporating the complex CDSi (Clinical Decision Support for Immunization) logic coded into many IIS for evaluation and forecasting. CoCASA algorithms do not have the same degree of detail for analysis as do CDSi-based IIS solutions.