STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Deidre S. Gifford, MD, MPH
Acting Commissioner

Ned Lamont
Governor

Susan Bysiewicz
Lt. Governor

March 26, 2021

Senator Heather Somers, Ranking Member, Public Health Committee
Senator Tony Hwang, Ranking Member, Public Health Committee
Representative William A. Petit, MD, Ranking Member, Public Health Committee
State Capitol
210 Capitol Avenue
Hartford, Connecticut 06106-1591

Dear Senators Somers and Hwang, and Representative Petit –

Thank you for your letter to Governor Lamont outlining a series of questions on childhood immunizations. Below are response to those questions provided by the Department of Public Health and State Department of Education.

Please let us know if you have any questions.

Thank you.

Sincerely,

Deidre S. Gifford, MD, MPH
Acting Commissioner

Cc: Ned Lamont, Governor
Paul Mounds, Chief of Staff, Office of the Governor
Charlene M. Russell-Tucker, Acting Commissioner, State Department of Education
Senator Mary Daugherty Abrams, Chair, Public Health Committee
Representative Jonathan Steinberg, Chair, Public Health Committee

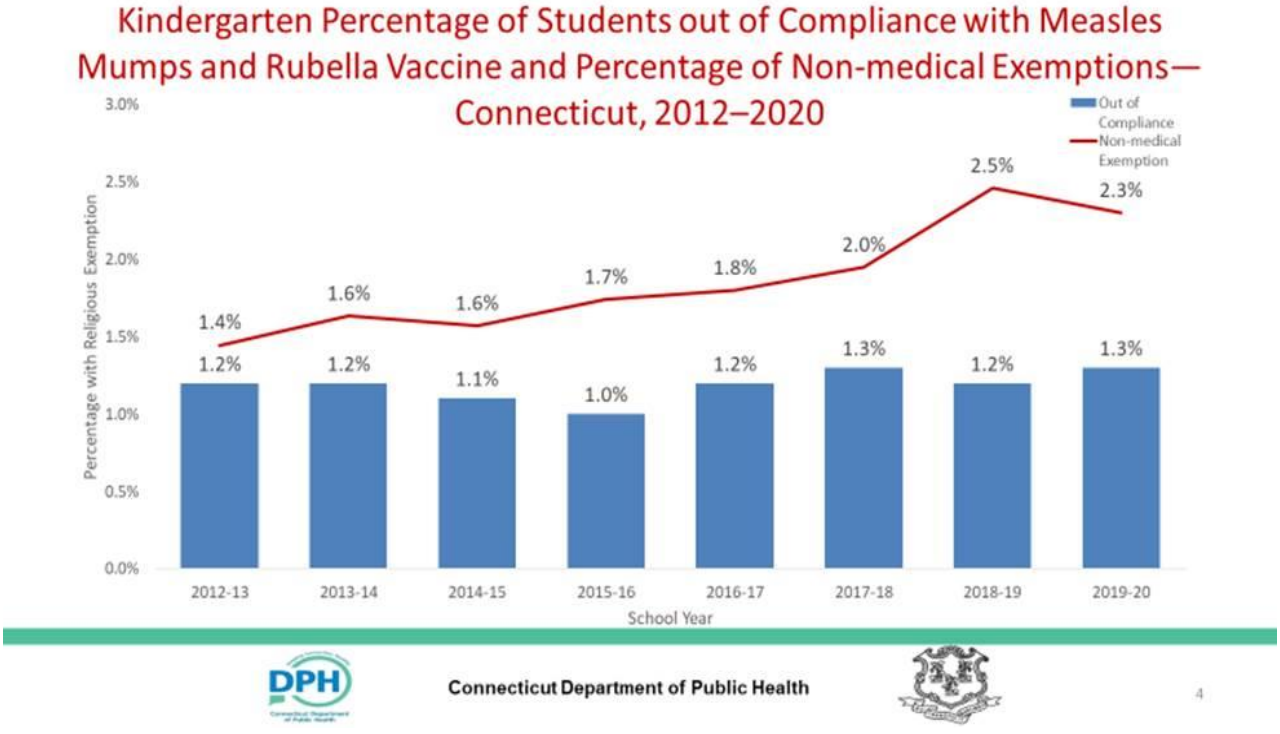
1. Kindly provide data that includes the percentage of noncompliant students per school, along with the current percentage claiming religious exemption per school so we can understand the number of children that have no paperwork.

   The Immunization Program works collaboratively with schools that report children out of compliance on the school immunization survey to advise and work through issues on lack of access to vaccines.

   The local or regional board of education, or similar body governing a nonpublic school or schools, is responsible for enforcing vaccine compliance. Children can be considered "out of compliance" if they do not have all of the required vaccines. Children who do not have all of the required vaccines can only attend school if they receive one dose of each required vaccine and continue on a catch up schedule, or have a written statement from a physician or local health authority stating that such individual has an appointment scheduled. Children on a catch up schedule come into full compliance as the school year progresses. In contrast, children with an exemption on file typically have not had a dose of all of the required vaccines and are not on a catch up schedule.

   The school immunization survey, which includes a measure of what percentage of children are in compliance in each school, is administered each fall. For the purposes of the survey, children are either up to date or not on the required vaccines; those children who are not up to date are considered out of compliance, whether they have no immunization records or are on a catch up schedule. Some school districts have a greater number of children entering who are not up to date at the time the survey is administered, but this does not necessarily signal an enforcement issue, it simply takes time to catch children up who are behind on vaccines.

   Please see the graph below:



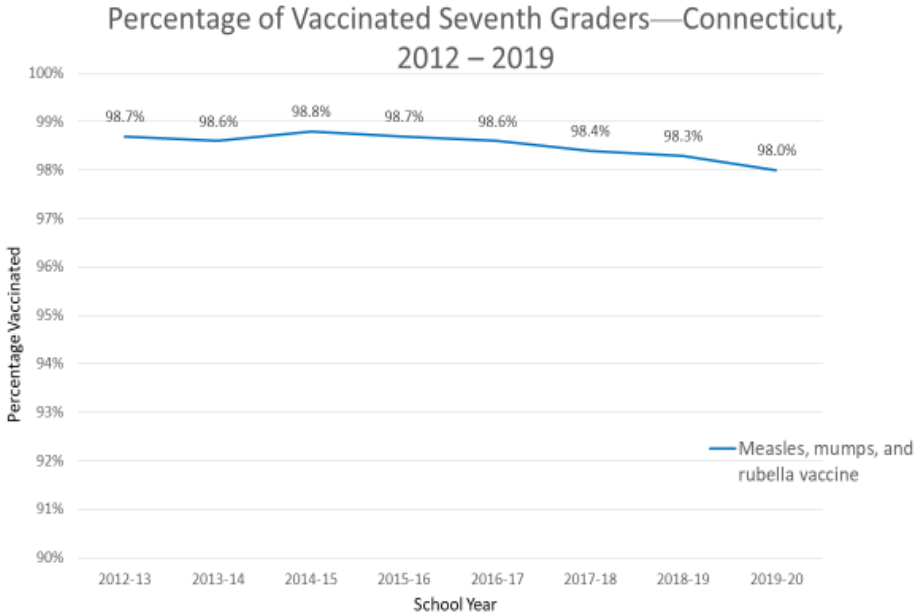
2. Provide the number of noncompliant students in each school in the same manner to those that claim an exemption are included.

   Compliance is measured for each vaccine. If you subtract from 100 the percentage of students with an exemption plus the percentage vaccinated for each vaccine, this gives you the percentage of children out of compliance for that particular vaccine. Please see the attached Appendix 2019-2020 School Year Compliance, which includes the percentage of kindergarten students out of compliance with the measles, mumps, and rubella (MMR) vaccine at each school with 30 or more students.

3. Given that the vaccination numbers have improved at the kindergarten level and not at the 7th grade level – suggesting a bubble moving through the system – on what basis should we be removing children k-7 from school?

   The percentage of Connecticut kindergarten students receiving all required measles, mumps and rubella (MMR) vaccines in the 2019-2020 school year was 96.2%. This is a slight increase of 0.1 percentage points from the previous year and a drop of 0.9 percentage points since 2012–2013. There is no evidence that this represents "a bubble" of children who would move up through the school each year, and no way of knowing if this represents a trend that will continue in subsequent years.

   Below is a graph representing MMR vaccination status for 7th graders. For the 2019-20 school year, 98.0% had received 2 doses of MMR vaccine, a drop of 0.3% compared with the previous year and 0.7% since 2012-2013. The MMR vaccination rate at 98.0% is higher than the MMR vaccination of kindergarteners by 1.8 percentage points.



4. If this legislation moves forward and unvaccinated children are required to distance learn as an alternative to in-person learning in the classroom, what would the SDE plan be to provide services for children with 504s and IEPs?

   At this time, the statutory language in C.G.S. Section 10-204a prohibits school enrollment of unvaccinated students, not just in-person attendance of enrolled students. Therefore, students who are not vaccinated and have no plan to come into compliance would not be eligible to enroll in public or non-public schools and there is currently no requirement for a school to provide "distance learning" as an alternative under the proposed bill.

   We are cognizant of the questions that arise for students receiving services through IEPs or 504s whose parents choose not to vaccinate them. As the conversation continues around the proposed bill, we will ensure state leadership is aware of the potential impact on students with disabilities who would not be enrolled in any public school.

5. In light of the governor's position encouraging education rather than mandating the COVID vaccination, does the SDE feel that an education policy is more important to pursue rather than these punitive measures to remove a child from school?

   The vaccination requirements for children in Connecticut represents a public health policy required to safe-guard public health in our schools, not an education policy. Vaccinations against childhood diseases are part of Connecticut's Public Health Code in C.G.S. Section 19a-7f. Schools are charged with enforcing the State's approved immunization schedule by denying the enrollment of unvaccinated children.

   SDE supports the position of our sister Agency, the Connecticut Department of Public Health (DPH). DPH has engaged with the legislature on these topics, including but not limited to in this correspondence and submitting testimony both in 2020 and 2021.

6. What would the SDE plan be for providing virtual learning for unvaccinated children in Connecticut? Would the curriculum be offered at the state level or would each district be responsible for educating these children?

   The statutory language in C.G.S. Section 10-204a and the proposed language prohibit school enrollment of unvaccinated students, not just in-person attendance of enrolled students. Therefore, students who are not vaccinated and have no plan to come into compliance would not be eligible to enroll in public or non-public schools.

7. Given the governor's effort to educate and encourage volunteer vaccination during the COVID crisis, does the DPH believe that a more robust informed consultation paid for through insurance via the pediatrician would be the best way to reduce noncompliance and people claiming the religious exemption?

   No. Pediatricians and other child health professionals are expert in discussing vaccination pros and cons with families as part of their routine wellness care. Several strategies to raise

immunization rates in school children may be pursued simultaneously, one need not replace the other.

8. What is the total number of noncompliant children statewide?

As indicated in previous responses, compliance is measured for each vaccine at the grade level when the vaccine becomes due (kindergarten and 7th grade). MMR compliance for kindergarten will be shared at the school level as requested. Please refer to the response provided for question 2.

Vaccine Type	Number not Complete		Number Complete	
	Kindergarten	Seventh Grade	Kindergarten	Seventh Grade
Polio	479	174	37,434	43,027
DTaP[1]	508	284	37,405	42,917
MMR[2]	502	159	37,411	43,042
Hep-B[3]	363	205	37,345	42,996
Varicella	632	230	37,281	42,971
Hep-A[4]	568	422	37,345	42,779
MCV[5]	N/A	1,404	N/A	41,797
Tdap[6]	N/A	1,326	N/A	41,875

1 Diphtheria, tetanus, and acellular pertussis

2 Measles, mumps, and rubella

3 Hepatitis B

4 Hepatitis A

5 Meningococcal conjugate vaccine

6 Tetanus, diphtheria, and acellular pertussis

9. Could the DPH please provide a trendline over the last 10 years of noncompliant children comparable to the trendline given for religious exemption and nonreligious exemption?

   Please refer to the response to question 1. The trendline is shared as of 2012-13, the year from which the data is available.

10. Would the DPH endorse sanctioning school nurses and districts for failing to collect all vaccine paperwork from students at schools?

    SDE would not support this action. School nurses work diligently to ensure all students are current or actively pursuing catch-up vaccinations according to the DPH schedule. Often times the lack of paperwork is not about failed collection, but linked to equity, access, and resource issues for parents who may not be able to secure a medical form or may require additional time to produce the form. Lack of paperwork does not equate directly to whether students have actually been vaccinated, in which case lack of documentation of that vaccine is a short term, resolvable issue. School nurses and districts have also engaged in the hard work of keeping our school communities safe during this pandemic. SDE and DPH will continue to ensure that school nurses receive training and technical assistance on CT WiZ, the State's Immunization Information System, to assist in collecting information, in addition to following up with pediatricians and families.

11. The data for vaccinations is only captured at the beginning of kindergarten and the beginning of 7th grade. Given that, does the DPH believe that it would be more statistically accurate to have the schools report the data annually for each grade or provide a mechanism for them to update student data on a rolling basis?

    The reason that vaccines are measured at the kindergarten and 7th grade levels is because this is when specific vaccines become due. The survey is a cross sectional survey; the intent is to capture trends over time. Consistent methods and timing are necessary to make valid comparisons and to monitor trends accurately. The survey is not intended to be a legal or compliance tool.

    Whenever children enroll in a school, according to the law, they must be vaccinated according to their current grade level or brought into compliance on a catch-up vaccination schedule. The local board of education or school administration is responsible for ensuring this is completed. Children out of compliance on the survey are not necessarily children that should be excluded from school, as they are typically either moving toward compliance or an example of need for paperwork to be followed-up on.

12. Given that the data is reported as a snapshot in time, does the department believe it would be beneficial to have a mechanism for schools to update their vaccination data as students come into compliance?

An annual cross-sectional survey is adequate to measure trends in vaccination and exemption status of students. Additional data reporting to DPH is not needed. The local board of education has the mechanisms in place to ensure students come into compliance according to the law.

13. What is your working hypothesis for why removing the religious exemption is necessary now, and what is DPH basing this on?

There has been a slow but steady increase in the percentage of students claiming a religious exemption over time. Newly exempt children are being added to the number of exempt children from the years before and still contributing to the erosion of herd immunity. Removing the religious exemption should be an effective means to reverse this trend.

One recently published article examined historical trends in nonmedical exemption prevalence in the US and reviewed recent studies on the association between nonmedical exemptions and infectious disease outbreaks. This article concluded the following: "A recent modeling study highlighted that a 5% decrease in measles vaccine coverage would result in a tripling of measles incidence in the United States…Combining these findings with the estimate that 1 in 8 children under the age of 18 years in the United States may be susceptible to measles, it is clear that there is little room for expansion in the number of children exempted from routine immunization requirements before larger scale outbreaks will be observed…"

Numerous proposals have been put forth on how best to address nonmedical exemptions and the potential for resultant infectious disease outbreaks. One avenue, shown to work in California, is the elimination of all nonmedical exemptions. The American Academy of Pediatrics supports this direction and has produced a policy statement calling for all states to eliminate nonmedical exemptions from their state-level immunization policies."[1]

14. What is the expected impact on vaccination rates if these bills are signed into law? Does DPH expect it to increase? Will those who refuse vaccination continue to be counted if they remain in the state?

As has occurred in states that have eliminated nonmedical exemptions, DPH expects that vaccination rates will increase if the bill becomes law.[2]

The immunization status of students attending public and nonpublic schools in CT will continue to be monitored in the annual school immunization survey.

Please refer to the response for question 13.

15. Did you consider less onerous alternatives such as vaccine education by DPH, and if not, why not?

Please refer to the response for question 13.

During previous legislative sessions, bills have been introduced to reduce the number of nonmedical exemptions being sought. Only one of these bills (Public Act 15-174) passed into law, but the version that passed had no detectable impact.[2]

One study concluded the following: "analyzing the dynamics of NMEs [nonmedical exemptions] in several states with policy change history, we showed that eliminating either a subset of exemptions (in Vermont) or all NMEs (in California) appears most effective in reducing exemption rates overall.…Finally, we showed that NMEs are clustered at the county level, and that only the most stringent policy change appeared to modify both the spatial structure and the mean and variance in the relative risk of NME rates in any significant way."[2]

16. Did you explore ideas for broadening medical exemptions under DPH and if not, why not?

The bill introduced by the Public Health Committee, House Bill 6423, does so (see bold below):

Sec. 7. (NEW) (Effective from passage) On or before October 1, 2021, the Commissioner of Public Health shall develop and make available on the Internet web site of the Department of Public Health a certificate for use by a physician, physician assistant or advanced practice registered nurse stating that, in the opinion of such physician, physician assistant or advanced practice registered nurse, a vaccination required by the general statutes is medically contraindicated for a person because of the physical condition of such person. The certificate shall include (1) definitions of the terms "contraindication" and "precaution", (2) a list of contraindications and precautions recognized by the National Centers for Disease Control and Prevention for each of the statutorily required vaccinations, from which the physician, physician assistant or advanced practice registered nurse may select the relevant contraindication or precaution on behalf of such person, (3) **a section in which the physician, physician assistant or advanced practice registered nurse may record a contraindication or precaution that is not recognized by the National Centers for Disease Control and Prevention, but in his or her discretion, results in the vaccination being medically contraindicated, including, but not limited to, any autoimmune disorder or family history of any autoimmune disorder, (4) a section in which the physician, physician assistant or advanced practice registered nurse may include a written explanation for the exemption from any statutorily required vaccinations,** (5) a section requiring the signature of the physician, physician assistant or advanced practice registered nurse, (6) a requirement that the physician,

physician assistant or advanced practice registered nurse attach such person's most current immunization record, and (7) a synopsis of the grounds for any order of quarantine or isolation pursuant to section 19a-131b of the general statutes.

17. On what scientific basis does DPH and SDE not require documentation that all teachers and staff at the schools are also fully vaccinated?

DPH does not have the authority to require vaccination or documentation of vaccination of teachers and staff. Currently, there are no laws in Connecticut that require vaccination or documentation of vaccination of adults in any sector, including healthcare. Most adults do not have documentation of their vaccination histories.

18. Can the DPH provide any data or evidence showing how many unvaccinated children have transmitted one of these conditions to others in the community?

There is a growing body of evidence regarding the impact of state vaccination requirements for school age children on vaccination coverage and the association of nonmedical exemption rates with increased disease incidence.[3]

"Seventeen studies assessed the epidemiological implications of NMEs [nonmedical exemptions]. Exemptions from mandated immunizations increased individual risk for contracting a disease and population risk for disease outbreak. Exemptors were more likely to acquire measles and pertussis than vaccinated children, with a 22- to 35-times higher risk for measles and a 6-times higher risk for pertussis. In outbreaks of vaccine-preventable childhood diseases in the United States, many affected children had exemptions or were otherwise unvaccinated because of parental philosophical or religious beliefs.….At the community level, studies have found that geographic clusters of vaccine exemptors are associated with outbreak risk and with higher incidence of vaccine-preventable disease."[3]

"Intentionally unvaccinated individuals make up large proportions of cases in outbreaks of both measles and pertussis in the United States [4], and they can unwittingly be the starting point of epidemics that may take hold in populations with relatively high vaccination rates."[5]

19. What is SDE's plan for how individual schools will handle the data they receive from DPH, especially in cases where reports are incomplete?

The implementation of the concepts introduced by the proposed language, should it become law, will require the SDE to participate and provide guidance to our local educational agencies (LEAs) for operationalizing the new law. We are engaging with stakeholders and are poised to support LEAs should the legal requirements change going forward.

20. What is SDE's plan for ensuring that those who refuse to vaccinate their children, and seek schooling elsewhere, are appropriately educated?

Because C.G.S. Section 10-204a prohibits school enrollment of unvaccinated students, students who are not vaccinated and have no plan to come into compliance would not be eligible to enroll or remain enrolled in public schools - including charter schools, magnet schools and alternative education placements. The SDE and local and regional boards of education have responsibility for the education of students enrolled in public school. Parents who cannot enroll their child in public or nonpublic school because they choose not to vaccinate would be obligated to ensure their child was receiving equivalent instruction, such as through homeschooling.

21. It appears the data collected by DPH's school survey is not necessarily accurate. It is imperative to have the micro data on vaccines - For example if a child has a religious exemption to one vaccine out of the vaccine schedule they are counted at "unvaccinated" when truly they should be considered "undervaccinated" - Is there a way for DPH to provide the detail by vaccine type as to who is missing what?

Any individual whose parents or guardian presents a statement that such immunization is contrary to the religious beliefs of such child is exempted from immunization requirements. Parents are subsequently not required to present a vaccination record for the child – it is likely not known to the school which vaccines the child may or may have not received, if any. Therefore, it is necessary to collect religious exemption information in the survey on the level of the child rather than on the level of each vaccine.

22. What are the vaccines that children are failing to receive, and can DPH please provide this information? Is it the MMR? is it Hep B or A? If we had this data, wouldn't it be more prudent to have an educational push on the problem vaccine rather than displacing children?

We do not have additional CT specific data on which vaccines are driving exemptions, but we do know that in one study, the measles–mumps–rubella, varicella, and hepatitis B vaccines were reported as the most frequently exempted vaccines.[3]

Several strategies to raise immunization rates in school children may be pursued at once, one need not replace another. While an "educational push" may be helpful to a subset of parents, in several studies information alone was not found to increase vaccine confidence among hesitant parents.[7,8]

23. What is the school expulsion process to remove a child from school with a religious exemption by SDE? Who bears the cost of court fees in an expulsion hearing - the municipality or the state?

If this legislation passes, and students with religious exemptions are not grandfathered in, then by law, the student would be required to be unenrolled by the district, not expelled.

24. How will SDE address the way in which ECS is impacted by towns for the removal of students with a religious exemption, and those who are non-compliant?

    ECS is calculated based on the October 1 counts from the prior year and this proposal makes no changes to that process.

25. How will SDE address the issue of equity and justice if it is found that black and brown children are more directly impacted and forced out of school than their white counterparts?

    In a systemic review, "…higher exemption rates were associated with higher proportion of whites, higher percentage of college graduates, higher median household income, and lower percentage of families in poverty at the census tract, zip code, or school district level. Studies found more exemptions in rural than in urban school districts, and exemption rates were higher, and increased faster, among private than public schools."[3]

26. Will SDE's teacher evaluations change for those who are required to teach remotely children that are now forced to learn from home due to their religious beliefs?

    This will have no impact on teacher evaluations as those children will not be enrolled in the public school system.

27. If it is currently stated by the CDC that schools are one of the most safe environments with the risk mitigation that has occurred via COVID, can DPH address how removing children with a religious exemption increases safety if these same children are still at the public library, at the parks, grocery store etc.?

    School vaccination laws have played a key role in the control of vaccine preventable diseases in the United States.[9] The U.S. Department of Health and Human Services Community Preventive Services Task Force (CPSTF) is an independent body carrying out evidence-based reviews of the literature to assess the claims that preventive interventions directed to populations are effective. One of the 17 interventions reviewed for vaccine-preventable diseases was mandatory vaccination requirements. The Task Force found sufficient evidence to demonstrate the effectiveness of these requirements in increasing vaccine coverage, thereby reducing disease incidence, and so recommended their use.[10]

    CPSTF recommends vaccination requirements for child care, school, and college attendance to increase vaccination rates and decrease rates of vaccine-preventable disease.[10] This CPSTF finding is based on evidence from 32 studies (search period January 1980 – July 2015).

28. Does the DPH Commissioner plan on adding COVID 19 to the list of required vaccines if it is granted an EUA by the FDA on children, and will a COVID vaccines be required for CT children to enter school this fall?

    Currently there are no plans by the State to require the COVID-19 vaccine for students entering school this fall.

29. If increased vaccinations is truly the goal, would DPH be willing to fund vaccination clinics at schools through the school nurse and/or school based health clinics?

    The Connecticut Vaccine Program already provides all recommended vaccines for children at no cost to parents. School based health centers, which are available in numerous schools throughout the State, provide these vaccines right on school grounds. Additionally, some local health departments provide clinics to catch up school children that may have fallen behind on vaccinations.

30. How does removing children with a religious exemption actually increase the vaccination rate, and can DPH please help answer this?

    The expected outcome of the removal of the religious exemption is that many students that currently have religious exemptions will be vaccinated, and newly enrolled students will not have this option available to them. This will lead to higher exemption rates in each school.

    As shown in California, implementation of the policy that eliminated nonmedical childhood vaccine exemptions was associated with an estimated increase in vaccination coverage and a reduction in nonmedical exemptions at state and county levels. The observed increase in medical exemptions was offset by the larger reduction in nonmedical exemptions. The largest increases in vaccine coverage were observed in the most "high-risk" counties, meaning those with the lowest pre-policy vaccine coverage. Our findings suggest that government policies removing nonmedical exemptions can be effective at increasing vaccination coverage.[11]

31. Would SDE and DPH consider a standard form or method of record keeping for school nurses and increase funding to keep records up to date on vaccinations?

    There is already a standard form for data collection, State of Connecticut Department of Education Health Assessment Record https://portal.ct.gov/-/media/SDE/School-Nursing/Forms/HAR3_2018.pdf?la=en.

Citations

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