

Assessment of Immunization Training Needs for Medical Assistants

Data Analysis

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Executive Summary

The purpose of the Assessment of Immunization Training Needs for Medical Assistants survey was to assess the immunization-related training needs of medical assistants (MAs) throughout the U.S. A web-based instrument, with 25 questions, was developed to describe the population of MAs, the immunization services tasks they most commonly perform, their experiences with immunization-related training, their future training preferences and possible methods/modes for communicating with them. Even though the survey distribution methodology targeted 24 states (and rural populations within four of these 24-targeted states), the final group of respondents included 1977 MAs from 49 states, the District of Columbia and Guam.

NOTE: The following acronyms are used throughout this document: AAMA (American Association of Medical Assistants), CDC (Centers for Disease Control and Prevention), CMA (Certified Medical Assistant), RMA (Registered Medical Assistant), on-the-job trained (OJT), Vaccines for Children (VFC) program and Vaccine Information Statements (VISs). It should also be noted that the term “MA Program” refers to the variety of preparatory medical assisting education programs, ranging from non-accredited six-month programs to accredited associate degrees in medical assisting.

Key findings from the data include:

- Professional preparation to become a MA was varied and ranged from OJT, graduate from an MA program, graduate from an MA program and an RMA, graduate from an MA program and a CMA, to some combination of these.
- While MAs worked in a variety of settings, most worked in physicians’ offices and of those, family practice offices were the most common.
- A majority of the healthcare offices where MAs worked participated in the VFC program.
- Immunization tasks that MAs performed often include: screening patients, educating patients/parents, administering vaccines, record keeping, and storage and/or handling of vaccines.
- The leading reasons MAs participated in immunization training were, 1) when a doctor or other medical staff offered training in their office, 2) when there was a change in immunization recommendations or 3) when a new vaccine came out.
- The majority of MAs received their immunization training in the past as in-services and most received immunization updates and trainings from in-house staff or other lecturers.
- Training topics identified as important to MAs include: adverse reactions or “side effects,” educating patients/parents, administering vaccines, risk communication, record keeping and/or documentation in patient record, immunization schedules, storage and/or handling of vaccines, clinical information about disease, VISs and screening patients.
- MAs’ preferred delivery method for future immunization trainings was as an in-service activity in their office.
- Educational strategies preferred by MAs include problem-based learning and case studies.
- Factors that motivated MAs to participate in immunization trainings were learning new or updated information and current job requirements.
- Barriers for participating in immunization trainings were finding time during their work schedule, not being aware of available trainings and the cost of trainings.
- MAs identified their supervisors as “gatekeepers” of information and in fact, many learned of this training assessment from their supervisor.

- MAs identified that the best ways to announce training availability and updated information were via email, direct mail and key websites.

Recommendations based on these key findings have been organized into the following categories: advocacy, communication and training.

Advocacy:

- Advocate for professional preparatory standards.
- Partner with medical and nursing associations to facilitate communications with MAs, to advocate the ongoing need for immunization training and to encourage valuable support and recognition of MAs.
- Advocate for a national mechanism (e.g., registry) to collect contact information for MAs regardless of educational preparation or membership in a professional association.
- Advocate for uniform regulation of the medical assistant profession.

Communication:

- Announce training availability and updated information via email, direct mail and key websites (e.g. immunization registry sites, CDC).
- Communicate training opportunities to worksite supervisors.
- Communicate to worksite supervisors the importance of ongoing updates and immunization training for MAs.

Training:

- Focus immunization-related trainings on: “adverse reactions or ‘side effects’”; “educating patients/parents (i.e., health communication)”; “administering vaccines”; “risk communication (e.g., discussion of vaccine safety)”; “record keeping and/or documentation in patient record”; “immunization schedules”; “storage and/or handling of vaccines”; “clinical information about disease”; “VISs”; and, “screening patients”.
- Develop case studies and problem-based learning activities.
- Develop short, modular training units that incorporate case studies and problem-based learning.
- Deliver trainings for MAs as in-services by either in-house staff (e.g., nurse, medical staff) or by other lecturers (e.g., pharmaceutical representatives, nurse from technical college, public health staff).
- Utilize a train-the-trainer methodology that incorporates these modular training units, to support worksite supervisors as they train MAs.
- Partner with VFC program to facilitate the development and dissemination of training opportunities for MAs in VFC settings.
- Offer continuing education units (CEUs) as an incentive for MAs, particularly CMAs and RMAs, to attend trainings.
- Explore strategies to offer no-cost or low-cost training to MAs by collaborating with other agencies (e.g., state immunization programs, professional organizations, pharmaceutical companies).
- Market available continuing education offerings to MAs and their supervisors and clarify that many trainings offer CEU credit that CMAs and RMAs may be able to use.
- Develop immunization-related training materials at an instructional level appropriate for the diversely-trained population of MAs.

All Respondents

Overview

There were 2730 individuals who started the survey. When asked if they currently worked as a medical assistant, 2426 individuals indicated that they did (all others were dropped from the survey). These individuals were then asked if they currently worked in the area of immunization services. There were 2089 individuals who responded “yes.” From this group, individuals who did not answer any additional survey questions were omitted. This left **1977 individuals** in the final group of respondents.

NOTE: Respondents sometimes added “Other” responses when not required. The research team decided to keep these responses because they added additional information and insight on the population of medical assistants surveyed. All “Other” responses included throughout this document have been included “as is” and have not been edited.

NOTE: The following acronyms are used throughout this document: AAMA (American Association of Medical Assistants), CDC (Centers for Disease Control and Prevention), CMA (Certified Medical Assistant), RMA (Registered Medical Assistant), on-the-job trained (OJT), Vaccines for Children (VFC) program and Vaccine Information Statements (VISs). It should also be noted that the term “MA Program” refers to the variety of preparatory medical assisting education programs, ranging from non-accredited six-month programs to accredited associate degrees in medical assisting.

Questions about Respondents

General demographic information was gathered on the final group of respondents. More than fifty percent (53.2%) graduated from a medical assistant program and indicated they are a CMA. Twenty-five percent (25.3%) indicated they graduated from a medical assistant program, 10.0% said they had graduated from a medical assistant program and were an RMA, and 7.5% of respondents indicated that they had received their training as a medical assistant on the job (Table 1). Respondents indicated that they have worked as a medical assistant for an average of nine years (Table 2).

Table 1: What type of education have you received to become a medical assistant?

	<u>Number</u>	<u>Percentage</u>
I received my training as a medical assistant on the job	129	7.5%
I graduated from a medical assistant program	435	25.3%
I graduated from a medical assistant program and am a RMA	172	10.0%
I graduated from a medical assistant program and am a CMA	916	53.2%
Other	70	4.1%
Total	1722*	100.0%

* N = 1722 due to missing records.

“Other” Responses

Respondents often described their education as a combination of the possible answer choices. For example, one respondent commented “I am a CMA (AAMA) and a RMA, but have not had formal education in a medical assistant program.” In addition, respondents choose to describe their educational background differently by adding comments that they had their Associates Degree in Medical Assisting or Associates Degree in Science. Several respondents offered that they were Nationally Certified Medical Assistants. Some respondents specifically mentioned they had received their educational coursework from the U.S. Navy Hospital Corpsman School. Lastly, many respondents stated the other medical fields in which they have received a degree or professional training. The following were the most common responses: physicians (often indicating they were “foreign” physicians), RNs, LPNs, LVNs, BSNs, and EMTs.

Table 2: How many years have you worked as a medical assistant?

Minimum: 0 years
Maximum: 42 years
Average: 9 years
Median: 7 years

* N = 1694 due to missing records.

While 11.4 % of respondents indicated that they worked in a “Community Health Center”, the large majority (70.6%) of respondents worked in a “physician’s office” and of those, more than 40% worked in “family practice” (Tables 3 & 4).

Table 3: In what type of healthcare setting do you work?

	<u>Number</u>	<u>Percentage</u>
Physician’s office	1217	70.6%
Other healthcare practitioner’s office	50	2.9%
Public or private hospital (including inpatient/outpatient facilities)	80	4.6%
Outpatient care center (not associated with a hospital)	43	2.5%
State or local government agency or health department	61	3.5%
Nursing care facility	3	0.2%
Community Health Center	196	11.4%
Other	74	4.3%
Total	1724*	100.0%

* N = 1724 due to missing records.

“Other” Responses

In the “Other” response section, respondents frequently stated they worked in university/college student health or in a school-based health center. In addition, some of the respondents stated that they were instructors in medical assistant programs. Often respondents worked in more than one healthcare setting and they provided an additional description of their other work location. Many of the remaining responses described a variety of different types of clinics (family practice clinic, free clinic, Rural Health Clinic), different types of hospitals (government, military) or the specialty of the work site (orthopedics, occupational health, pediatrics, urgent care).

Table 4: If you work in a physician’s office, what type of office is it?

	<u>Number</u>	<u>Percentage</u>
Internal medicine	137	11.3%
Pediatrics	371	30.7%
Obstetrician and Gynecology	57	4.7%
General practice	23	1.9%
Family practice	500	41.4%
Other	121	10.0%
Total	1209	100.0%

* N = 1209 due to missing records.

“Other” Responses

The respondents’ most frequent “Other” comment was they work in a physician’s office that provided a combination or all of the types of medical practices described in the answer choices. In addition, many of the respondents described themselves as “floaters” within the worksite, thus they worked in a variety of types of physician’s offices. Other respondents provided descriptions of the office where they worked including: allergy and immunology, dermatology, endocrinology, gastroenterology, geriatrics, orthopedics, pulmonology, rheumatology and urgent care.

Within the healthcare setting, there appeared to be a similar distribution of adult, adolescent and childhood immunizations given (27.9%, 28.9% and 28.8%, respectively). Immunizations for international travel were given in only 12.8% of the settings (Table 5). A majority (64.2%) of the healthcare offices participated in the VFC program (Table 6).

Table 5: What type of immunizations are provided in your healthcare setting?

	<u>Number</u>	<u>Percentage</u>
Adult immunizations	1327	27.9%
Adolescent immunizations	1375	28.9%
Childhood immunizations	1366	28.8%
Vaccines required for international travel	607	12.8%
Other	77	1.6%
Total	4752*	100.0%

* N = 4752, because respondents were able to mark more than one response.

“Other” Responses

Providing immunization for college age students was a common “Other” response. Many respondents listed out the specific immunizations they provided and some of the most common responses were: Gardasil/HPV vaccine, flu shots, tetanus and PPD. Some respondents listed items that are not immunizations but do involve injections such as allergy treatments, antibiotics, growth hormone and vitamin B12.

Table 6: Is your healthcare setting currently enrolled as a Vaccines for Children (VFC) provider?

	<u>Number</u>	<u>Percentage</u>
Yes	1095	64.2%
No	310	18.2%
Do not know	300	17.6%
Total	1705*	100.0%

* N = 1705 due to missing records.

The survey distribution methodology targeted 24 states (and rural populations within four of these 24-targeted states). Eighty-two percent (82.1%) of respondents indicated that they worked in one of these targeted states. Responses though, were received from medical assistants working in 49 states (no responses were received from North Dakota), the District of Columbia and Guam (Table 7). Most respondents indicated that they worked in either an urban or suburban location (37.9% and 34.2%, respectively); while 27.9 % indicated they worked in a rural location (Table 8).

Table 7: In what state do you work?

	<u>Number</u>	<u>Percentage</u>
Alabama *	12	0.7%
Alaska	25	1.5%
Arizona *	132	7.8%
Arkansas	5	0.3%
California *	42	2.5%
Colorado	9	0.5%
Connecticut	4	0.2%
Delaware	2	0.1%
District of Columbia	6	0.4%
Florida *	59	3.5%
Georgia *	37	2.2%
Hawaii	3	0.2%
Idaho	1	0.1%
Illinois	18	1.1%
Indiana *	92	5.4%
Iowa *‡	43	2.5%
Kansas *	9	0.5%
Kentucky	29	1.7%
Louisiana	5	0.3%
Maine	7	0.4%
Maryland	34	2.0%
Massachusetts *	49	2.9%
Michigan *	75	4.4%
Minnesota	43	2.5%
Mississippi *	5	0.3%
Missouri	30	1.8%
Montana	1	0.1%
Nebraska	4	0.2%
Nevada *	13	0.8%
New Hampshire	10	0.6%
New Jersey *	20	1.2%
New Mexico *	6	0.4%
New York	8	0.5%
North Carolina *	61	3.6%
North Dakota	0	0.0%
Ohio *	35	2.1%
Oklahoma	4	0.2%
Oregon *	84	4.9%
Pennsylvania *‡	85	5.0%
Rhode Island	4	0.2%
South Carolina *	33	1.9%
South Dakota *	13	0.8%
Tennessee	11	0.6%

Texas *‡	198	11.7%
Utah *	37	2.2%
Vermont	4	0.2%
Virginia	17	1.0%
Washington *‡	96	5.7%
West Virginia	15	0.9%
Wisconsin *	155	9.1%
Wyoming	1	0.1%
Other	7	0.4%
Total	1698**	100.0%

* Targeted state

‡ State where rural physicians were targeted

** N = 1698 due to missing records.

“Other” Responses

- Guam
- Kentucky and Southern Indiana. Our practice has satellite offices in both states.

Table 8: Where is your primary place of work?

	<u>Number</u>	<u>Percentage</u>
Urban	631	37.9%
Suburban	568	34.2%
Rural	464	27.9%
Total	1663*	100.0%

* N = 1663 due to missing records.

The average age of respondents was 38 years old (Table 9) and 97.0% of the respondents were female (Table 10).

Table 9: What is your age?

Minimum: 19 years
Maximum: 72 years
Average: 38 years
Median 37 years

* N = 1340 due to missing records.

Table 10: What is your gender?

	<u>Number</u>	<u>Percentage</u>
Male	51	3.0%
Female	1642	97.0%
Total	1693*	100.0%

* N = 1693 due to missing records.

Immunization Duties

When respondents were asked how often they perform immunization-related tasks, more than 70% indicated that they screened patients, educated patients/parents, administered vaccines, recorded/documented patient records and stored/handled vaccines often. More than 50% of respondents indicated that they never assess immunization rates and more than 40% indicate that they never code or bill for immunization services (Table 11).

Table 11: How often do you perform each of the following immunization tasks?

	Often	Not Often	Never	No. of Responses *
Screening patients	1434 (74.1%)	419 (21.7%)	81 (4.2%)	1934
Educating patients/parents	1500 (77.7%)	390 (20.2%)	40 (2.1%)	1930
Administering vaccines	1582 (81.3%)	266 (13.7%)	99 (5.1%)	1947
Record keeping and/or documentation in patient record (e.g. type of vaccine, date given, route, site, lot number, VIS date)	1711 (88.0%)	207 (10.6%)	27 (1.4%)	1945
Entering immunizations into State Immunization Registry	950 (49.2%)	309 (16.0%)	671 (34.8%)	1930
Storage and/or handling of vaccines	1528 (79.6%)	294 (15.3%)	98 (5.1%)	1920
Ordering vaccines/Supply management	857 (44.4%)	409 (21.2%)	665 (34.4%)	1931
Coding and/or billing of immunization services	681 (35.6%)	443 (23.2%)	788 (41.2%)	1912
Scheduling immunization clinics (e.g. flu shot clinics)	795 (41.2%)	478 (24.8%)	658 (34.1%)	1931
Maintaining reminder/recall systems regarding immunization	669 (34.8%)	544 (28.3%)	710 (36.9%)	1923
Assessing immunization rates	425 (22.4%)	445 (23.5%)	1024 (54.1%)	1894
Training of other staff members on issues related to immunizations	882 (46.0%)	602 (31.4%)	433 (22.6%)	1917

* N < 1977 due to missing records.

“Other” Responses

Respondents’ most common response related to “updates.” Often these “updates” referred to updating the supply of immunizations, personal knowledge regarding immunization, patient records, date entry, office supplies such as syringes, etc. Other comments that related directly to the administration of the immunization were drawing up the immunizations for other medical professionals to administer and staying updated on recalls. Indirectly related to immunizations, some medical assistants mentioned providing training to others and attending meetings. Other respondents just described the type of immunizations provided in their office such as adult or travel immunizations. Two respondents stated that they have provided assistance with the translation of immunization materials.

Although these responses did not directly answer the question, they were worth mentioning. One respondent mentioned medical assistants were not allowed to give immunizations at Community Health Centers in Massachusetts. Several respondents listed that additional *immunization* tasks for them included allergy shots and TB skin tests.

Training History

When respondents were asked when they have participated in trainings related to immunizations, the top three responses were: “when a doctor or other medical staff offers training in their office setting” (25.8%); “when there is a change in immunization recommendations” (21.9%); and “when a new vaccine is licensed” (19.9%). Only 2.4% indicated that they have “never participated in any training related to immunizations” (Table 12).

Table 12: When have you participated in trainings related to immunizations?

	<u>Number</u>	<u>Percentage</u>
I have never participated in any training related to immunizations	104	2.4%
When there is a change in immunization recommendations	939	21.9%
When a new schedule is published	746	17.4%
When a new vaccine is licensed	850	19.9%
When a doctor or other medical staff offers training in my office setting	1104	25.8%
I have not participated in training related to immunizations since I was in school	256	6.0%
Other	281	6.6%
Total	4280*	100.0%

* N = 4280, because respondents were able to mark more than one response.

“Other” Responses

The most common “Other” response to this question described how frequently the respondent had training and/or who provided the training. Most respondents stated that the training occurred annually and was most often sponsored by a government agency (local, state or federal). Some specific responses were:

- Annual State Immunization Conference
- Annual CDC lecture
- Annual immz seminar given by state and county
- The state of SC has immunization seminars 2-3 times a year. It is free to attend and very informative.

Other organizations were also listed as sponsors or providers of the trainings: VFC program, drug representatives, Oregon Society of Medical Assistants, Advisory Committee on Immunization Practices (ACIP) and health insurance companies.

Respondents also gave a common response that they had only been to one training or had never attended a training.

- I have had only one training meeting on immunizations.
- I only recived training in school and when I was a new employee.

Several respondents chose to share their opinions about the lack of training that they have received.

- I was just thrown into it when I got my first job as a medical assistant in a family practice setting.
- offered to me when i started emplyment, we are given information regarding Immz training but no coverage to cover so you can go to these events.

Of interest is the variety of different methods in which respondents participated in the additional training: workshops, seminars, webcasts, speakers, on-line training, email publications, mail, home study courses and conferences.

Past Immunization Trainings

Slightly more than fifty-percent of respondents (51.5%) indicated that they had received their immunization training in the past as an “in-service” in their office, either from nursing or medical staff (27.6%) or from other lecturers such as a pharmaceutical representative, a nurse from a technical college or a public health staff (23.9%). The fewest responses chosen were “satellite broadcast, webcast or net-conference,” “audio recording” and “self-study interactive multimedia” (in total, made up 13.6% of responses) (Table 13).

Table 13: In the past, how have you received immunization training?

	<u>Number</u>	<u>Percentage</u>
In-service by staff in your office (e.g, lunch ‘n learn with nurse or physician)	1119	27.6%
In-service by other lecturers (e.g., lunch ‘n learn with pharmaceutical rep, nurse from technical college, public health staff, etc.)	969	23.9%
In-person lecture outside your office setting	513	12.7%
In-person conference or symposium (an activity that is more than a single lecture)	330	8.2%
Satellite Broadcast, Webcast, or Net-conference where there is interaction with the instructor	106	2.6%
Satellite Broadcast, Webcast, or Net-conference where there is <u>no</u> interaction with the instructor	110	2.7%
Audio recording (CD, MP3, cassette)	76	1.9%
Self-study interactive multimedia (CD-ROM, DVD, web-based)	258	6.4%
Self-study print-based course or journal	434	10.7%
Other	134	3.3%
Total	4049*	100.0%

* N = 4049, because respondents were able to mark more than one response.

“Other” Responses

The majority of “Other” responses referred to the instruction they received from their medical assistant program. In addition, the CDC and health departments were listed as resources used in receiving training and these included a variety of different formats.

- Check CDC web page often, when I have any questions regarding adm.
- I use the CDC Yellow Book for Travel Medicine
- Health Dept. staff member comes to office to talk to me

Respondents also stated that they received training upon employment to a new office and these trainings are often described as being “hands-on.”

- My clinic trains new employees one on one to train them specifically on the processes of administering immunizations in pediatric departments, such as floats like myself.

Medical assistants also mentioned reading emails as a source of training as well as reading product information included with the vaccine vials.

When asked who provided or sponsored the immunization trainings received in the past, the top two responses were in-house staff such as a nurse, physician, or office manager (26.1%) and vaccine manufacturers or representatives (23.2%) (Table 14). Similarly, 22.0% of respondents indicated that they go to “in-house staff (physician, office manager, nurse)” to update their immunization knowledge and 19.4% go to “vaccine manufactures’ literature or representatives”. Eighteen percent (18.1%) of respondents indicated that the “CDC” was one of their resources for updating their immunization knowledge (Table 15).

Table 14: Who provided or sponsored the immunization trainings you received in the past?

	<u>Number</u>	<u>Percentage</u>
I do not know who sponsored the training	105	3.0%
Vaccine manufacturers or representatives	815	23.2%
Health department program	596	17.0%
In-house staff (physician, office manager, nurse)	916	26.1%
Local nursing school	77	2.2%
State medical assistant society or local chapter	149	4.2%
National AAMA (American Association of Medical Assistants)	166	4.7%
Local vocational/technical school or community college	195	5.6%
CDC (Centers for Disease Control and Prevention)	305	8.7%
Other government agency	99	2.8%
Other	83	2.4%
Total	3506*	100.0%

* N = 3506, because respondents were able to mark more than one response.

“Other” Responses

Respondents provided a wide variety of answers with no one response being a majority or even a very frequent response. Some responses did appear a few times, such as the VFC program, the respondent’s employer, state health agencies, and the local medical assisting training school.

Table 15: What resources do you use to update your immunization knowledge?

	<u>Number</u>	<u>Percentage</u>
I have never updated my knowledge base regarding immunizations	72	1.3%
American Academy of Family Physicians (AAFP)	175	3.1%
American Academy of Pediatrics (AAP)	433	7.7%
American College of Obstetricians and Gynecologists (ACOG)	48	0.9%
American College of Physicians (ACP)	44	0.8%
Centers for Disease Control and Prevention (CDC)	1013	18.1%
In-house staff (physician, office manager, nurse)	1229	22.0%
Local vocational/technical school or community college	102	1.8%
Online state immunization registry	479	8.6%
State health department immunization program	821	14.7%
Vaccine manufacturer’s literature or representatives	1084	19.4%
Other	97	1.7%
Total	5597*	100.0%

* N = 5597, because respondents were able to mark more than one response.

“Other” Responses

Respondents’ most common resource specified in the “Other” responses related to AAMA. Either respondents cited AAMA directly or indirectly by mentioning state societies, CMA magazine, or CEU training offered through AAMA. In addition, respondents also mentioned the Immunization Action Coalition (IAC) and specifically their email updates. Email updates sent by the respondents’ employer/company were also mentioned. The Internet, doing web searches and reading handouts or VISs were also mentioned as resources for updating immunization knowledge.

Future Immunization Trainings

As shown in Table 16, when respondents were asked to rate the importance of a variety of immunization-related training topics, the most important to the respondents were: “adverse reactions or ‘side effects’” (91.2%); “educating patients/parents (i.e., health communication)” (88.9%); “administering vaccines” (88.0%); “risk communication (e.g., discussion of vaccine safety)” (87.5%); “record keeping and/or documentation in patient record” (86.6%); “immunization schedules” (86.5%); “storage and/or handling of vaccines” (85.7%); “clinical information about disease” (85.1%); “VISs” (83.9%); and “screening patients” (82.0%). The training topics that were marked not important by the most respondents were: “assessing immunization rates” (30.0%) and “coding and/or billing of immunization services” (27.6%).

Table 16: To help you do your job better, how important is it for you to have training in the following topics?

	Important	Neutral	Not Important	No. of Responses*
Screening patients	1497 (82.0%)	197 (10.8%)	132 (7.2%)	1826
Educating patients/parents (i.e. health communication)	1614 (88.9%)	124 (6.8%)	78 (4.3%)	1816
Administering vaccines	1604 (88.0%)	98 (5.4%)	121 (6.6%)	1823
Record keeping and/or documentation in patient record (e.g. type of vaccine, date given, route, site, lot number, VIS date)	1577 (86.6%)	124 (6.8%)	119 (6.5%)	1820
Entering immunizations into State Immunization Registry	1328 (73.4%)	217 (12.0%)	264 (14.6%)	1809
Storage and/or handling of vaccines	1547 (85.7%)	139 (7.7%)	120 (6.6%)	1806
Ordering vaccines/supply management	1191 (65.9%)	267 (14.8%)	350 (19.4%)	1808
Coding and/or billing of immunization services	997 (55.8%)	297 (16.6%)	494 (27.6%)	1788
Scheduling immunization clinics (e.g. flu shot clinics)	1044 (57.9%)	314 (17.4%)	444 (24.6%)	1802
Maintaining reminder/recall systems regarding immunization	1108 (61.7%)	301 (16.8%)	387 (21.5%)	1796
Assessing immunization rates	901 (50.6%)	345 (19.4%)	535 (30.0%)	1781
Training of other staff members on issues related to immunizations	1402 (77.7%)	195 (10.8%)	208 (11.5%)	1805
Immunization schedules	1562 (86.5%)	132 (7.3%)	112 (6.2%)	1806
Vaccine Information Statements (VIS)	1500 (83.9%)	168 (9.4%)	119 (6.7%)	1787
Vaccines required for international travel	1192 (66.6%)	317 (17.7%)	282 (15.7%)	1791
Clinical information about disease	1523 (85.1%)	178 (9.9%)	89 (5.0%)	1790
Risk communication (e.g. discussion of vaccine safety issues)	1587 (87.5%)	150 (8.3%)	76 (4.2%)	1813
Adverse reactions or “side effects”	1640 (91.2%)	98 (5.5%)	60 (3.3%)	1798

* N < 1977 due to missing records.

“Other” Responses

Respondents’ most common “Other” response related to administration technique and schedule changes, specifically with the arrival of new vaccines.

- I know there are some people who are not giving vaccines properly (IM and SQ). This means children are not fully immunized.
- Proper technique. Some offices never aspirate, some do, some offices always bunch the skin up, some pull tight for IMs, bunch up for SQ.
- Future trainings for when there is a change in the way things are done or on a new vaccine.

A few respondents mentioned needing information on travel vaccines. Several respondents stated that they felt they did not need any additional training and were confident with their skill level.

- I do not feel i need any additional training on imm just updates when schedules change
- I feel i have had adequate training on most issues listed.

A couple of respondents, while stating that they did not need additional training did express that all of the topics listed were important.

- I am well trained but as anyone need refreshers all medial staff need to be highly trained in the vaccine / immunization area to keep out community protected

When asked how they would prefer to receive future immunization trainings, the most common responses were as an in-service activity in their office, either by lecturers such as pharmaceutical representatives, nurse from a technical college or public health staff (85.7%) or by nursing or medical staff in their office (84.0%). The delivery methods that were marked not preferred by the most respondents were audio recordings such as CD, MP3 or cassettes (59.8%) and satellite broadcast, webcast, or net-conference with no interaction with the instructor (54.4%) (Table 17).

Table 17: In the future, how would you prefer to receive immunization training?

	Prefer	Neutral	Do Not Prefer	No. of Responses*
In-service by staff in your office (e.g., lunch 'n learn with nurse or physician)	1466 (84.0%)	149 (8.5%)	131 (7.5%)	1746
In-service by other lecturers (e.g., lunch 'n learn with pharmaceutical rep, nurse from technical college, public health staff, etc.)	1473 (85.7%)	126 (7.3%)	120 (7.0%)	1719
In-person lecture outside your office setting	938 (56.4%)	294 (17.7%)	432 (26.0%)	1664
In-person conference or symposium (an activity that is more than a single lecture)	889 (54.0%)	317 (19.2%)	441 (26.8%)	1647
Satellite broadcast, webcast, or net-conference where there is interaction with the instructor	592 (36.1%)	332 (20.3%)	715 (43.6%)	1639
Satellite broadcast, webcast, or net-conference where there is <u>no</u> interaction with the instructor	418 (26.1%)	314 (19.6%)	872 (54.4%)	1604
Audio recording (CD, MP3, cassette)	341 (21.2%)	304 (18.9%)	960 (59.8%)	1605
Self-study interactive multimedia (CD-ROM, DVD, web-based)	712 (43.3%)	342 (20.8%)	592 (36.0%)	1646
Self-study print-based course or journal	750 (45.7%)	330 (20.1%)	561 (34.2%)	1641

* N < 1977 due to missing records.

“Other” Responses

The most frequent “Other” responses mentioned hands-on learning and the preference for a face-to-face presentation with the ability to ask the instructor questions.

- I feel in-person lectures are more effective in learning. You are able to ask questions and get feed back.
- I like it better when you have more hands on training. Not only lecture on the topic but show new procedures and techniques as well in person. Satellite is ok, but I prefer in-person contact. Just my preference.
- I like to be able to ask questions. I do think CDs or DVDs are very useful learning tool, but we need regular updates with a real person probably.

Respondents also used the “Other” response section to express personal opinions about matters indirectly related to the specific question. For example, respondents mentioned the importance of medical assistants staying up-to-date, and one respondent specifically pointed out the inappropriateness of some delivery methods (self-study course, tape, or satellite conference) for immunization training.

When asked about preferred educational strategies for future trainings, nearly eighty percent (78.9%) of respondents' preferred "problem-based learning" and 74.4% of respondents preferred "case studies." Only 42.0% preferred "role-plays" (Table 18).

Table 18: In the future, what educational strategies would you prefer?

	Prefer	Neutral	Do Not Prefer	No. of Responses*
Case studies	1296 (74.4%)	261 (15.0%)	184 (10.6%)	1741
Educational games	981 (58.1%)	329 (19.5%)	379 (22.4%)	1689
Role plays	705 (42.0%)	368 (21.9%)	607 (36.1%)	1680
Simulations	1159 (67.6%)	293 (17.1%)	262 (15.3%)	1714
Problem-based learning	1364 (78.9%)	225 (13.0%)	140 (8.1%)	1729

* N < 1977 due to missing records.

"Other" Responses

Only 14 "Other" responses were recorded for this answer. Responses that received multiple listings related to hands-on training and lectures that included educational hand-outs and visual aids.

Motivators and Barriers to Training

As shown in Table 19, respondents indicated that the top two factors that motivate them to participate in immunization trainings were learning new or updated information, for example, new schedule or new recommendations (95.4%) and a requirement for their current job (93.7%). Table 20 shows that the top three barriers for participating in immunization trainings were finding time during their work schedule (46.4%), not aware of available trainings (44.7%) and the cost of trainings (43.4%).

Table 19: Please indicate how much each factor motivates you to participate in immunization training.

	Greatly Motivates	Neutral	Does Not Motivate	No. of Responses*
Learning new or updated information (e.g., new schedule, new recommendations)	1684 (95.4%)	67 (3.8%)	15 (0.8%)	1766
Requirement for my current job	1631 (93.7%)	80 (4.6%)	29 (1.7%)	1740
Recommendation from my supervisor	1456 (85.2%)	180 (10.5%)	73 (4.3%)	1709
Increase in salary potential	1537 (89.0%)	109 (6.3%)	80 (4.6%)	1726
Earning continuing education units (CEUs)	1542 (88.4%)	101 (5.8%)	101 (5.8%)	1744
Competitiveness in the job market	1470 (85.5%)	145 (8.4%)	105 (6.1%)	1720

* N < 1977 due to missing records.

“Other” Responses

The “Other” responses for this question focused around three themes: safety and care for the patients, gratification and need to train others correctly. First, respondents mentioned several times the importance of providing immunizations safely so as to protect the patient and decrease the risk of a mistake.

- Mostly to be safe and give the correct information to my patients.
- Patient safety is my Number 1 motivator on learning about immunization training.
- My own competence in what I am doing sot the I “do no harm”

Several respondents mentioned they simply gain gratification by increasing their knowledge about immunizations.

- Self motivation, I like my JOB!
- self satisfaction

Lastly, respondents were responsible for training others, thus the respondents felt their knowledge regarding immunizations should be up-to-date.

- I am the clinical supervisor for my office so it is my job to keep up with training to be able to train employee’s if needed.

Table 20: Please indicate how much each factor is a barrier to you participating in immunization training.

	No Barrier	Neutral	Large Barrier	No. of Responses*
Finding time during work schedule	601 (34.8%)	323 (18.7%)	801 (46.4%)	1725
Competing family commitments	764 (45.2%)	397 (23.5%)	528 (31.3%)	1689
Training happens too far from where I work	686 (40.6%)	359 (21.3%)	643 (38.1%)	1688
Cost of training	616 (36.6%)	335 (19.9%)	730 (43.4%)	1681
Management’s lack of support of training	915 (54.6%)	313 (18.7%)	448 (26.7%)	1676
Identifying trainings appropriate for my needs	912 (54.3%)	444 (26.4%)	325 (19.3%)	1681
Not aware of available trainings	607 (36.0%)	324 (19.2%)	754 (44.7%)	1685

* N < 1977 due to missing records.

“Other” Responses

Respondents offered a wide variety of “Other” responses to this question. In many cases it was difficult to interpret the exact meaning of the response.

- Unavailable training
- lack of available training offered

Several of the responses made referenced the time of day the trainings could be offered. One respondent mentioned after hours and off-site trainings would be difficult because of other family commitments. Two other respondents mentioned that after work hours would be better due not having constant interruptions at work and not leaving the office under-staffed during working hours. One respondent mentioned difficulty in finding available training due to his or her clinic being 5 hours from a large city. One other respondent described a barrier as the “staff not realizing how important it is to know this stuff. so when you do try to show them the correct way they don’t get it.”

Communicating with Medical Assistants

More than nineteen percent (19.3%) of respondents indicated that they learned about the survey because they obtained a “postcard from the research team,” while 18.3% indicated they were “referred to the survey from another medical professional.” The largest percent of respondents, however, indicated that they learned about the survey from an “other” source (21.7%). Further investigation of the “Other” responses indicates that many received a referral from a supervisor (Table 21).

Table 21: How did you learn about this survey?

	<u>Number</u>	<u>Percentage</u>
Announcement on State Immunization Registry	129	6.8%
Communication from your state AAMA society or local chapter	173	9.1%
Postcard from research team requesting participation in survey	366	19.3%
Communication from academic program from which I received my medical assisting education	53	2.8%
Referral from other medical assistant	82	4.3%
Referral from a physician	102	5.4%
Referral from other medical professional	346	18.3%
Announcement on a website	233	12.3%
Other	411	21.7%
Total	1895*	100.0%

* Respondents were able to mark more than one response. N = 1895 due to missing records.

“Other” Responses

Respondents’ most frequent “Other” response was they had received communication about the survey from a superior at their work setting. Some of the job titles they specially named included: boss, office manager, CEO, employer, supervisor, corporate office, director of operations and nurse manager. When respondents described how they received the communication from a superior, the most common response was via email. Respondents also listed specific health organizations including CDC (website and letter), AAMA website, IAC Express Newsletter, and the VFC program (email, meeting and newsletter). Local and county health departments were mentioned to have sent out emails, faxes and flyers. In addition, several respondents stated having received communications about the survey from their state health service immunization programs.

Although nearly forty percent (38.9%) of respondents indicated that “email communications” was the best way to let them know about new immunization trainings in the future, 30.1% indicate that a “direct mailing through the U.S. postal system” is the best way (Table 22). Those who indicated that an announcement on a website was the best way to inform them of a new immunization training were asked to indicate the best locations for such an announcement. Table 23 indicates that the “state immunization registry website” and the “CDC website” were the best locations for such an announcement (24.8% and 20.7%, respectively).

Table 22: The purpose of this survey is to gather information about the immunization training needs and preferences of medical assistants. What is the BEST way to let you know a new immunization training is available?

	<u>Number</u>	<u>Percentage</u>
Announcement on website	108	6.4%
Email communications	661	38.9%
Direct mailing through U.S. postal system	512	30.1%
Announcement through professional newsletter or journal	88	5.2%
Announcement from continuing education provider	115	6.8%
Announcement through vaccine manufacturer	167	9.8%
Other	49	2.9%
Total	1700*	100.0%

* N = 1700 due to missing records.

“Other” Responses

Respondents mentioned notifying their employment about the training as the best way to inform them. These responses specifically mentioned: supervisors, director of nursing, manager, office administration, management staff, director, physician and director. In terms of methods of transmitting this information several respondents provided their personal email address reinforcing the preference for email delivery. In addition, postings on websites and sending information via fax were also mentioned. State health departments and VFC programs were also listed as sources to be the best way to communicate available trainings.

Table 23: Which of the following websites would be the best location for such an announcement?

	<u>Number</u>	<u>Percentage</u>
National AAMA website	22	18.2%
State AAMA society or local chapter website	12	9.9%
Centers for Disease Control and Prevention (CDC) website	25	20.7%
State immunization registry website	30	24.8%
State health department website	19	15.7%
Alumni association of medical assisting preparation program website	0	0.0%
Local vocational/technical school or community college website	2	1.7%
Other	11	9.1%
Total	121*	100.0%

* N = 121 due to individuals responding to this question even if they did not mark “Announcement on website” for previous question.

Specialized Analyses

The data were analyzed further by comparing responses to key questions by: the type of education; the type of healthcare setting; and the geographical location of respondents.

Type of Education

The following analyses were conducted by type of education that the respondent received to become a medical assistant:

- **OJT** (on-the-job trained medical assistants); N=129
 - **MA Graduate** (graduated from a medical assistant program); N=435
 - **RMA** (graduated from a medical assistant program and is a registered medical assistant); N = 172
 - **CMA** (graduated from a medical assistant program and is a certified medical assistant); N=916
-

As shown in Table 24, there is a general tendency for each of the four groups of respondents to indicate that they do the same types of tasks more often than others; however, RMAs had the highest percent of often responses for all but two tasks (“ordering vaccines/supply management” and “coding and/or billing of immunization services”). For these two tasks, when compared to the other three groups, a higher percent of OJTs indicated that they performed those tasks often.

The task performed most often by all four groups of medical assistants was “record keeping and/or documentation in patient records” (with percentage rates ranging from 77.5% in OJTs to 93.4% in RMAs). MA graduates and CMAs indicated that they administered vaccines second most often, with rates for MA graduates of 82.3% and for CMAs of 83.5%. RMAs indicated that they educated patients and parents second most often (89.7%), and OJTs indicated that they stored and/or handled vaccines second most often (76.4%).

Table 24: How often do you perform each of the following immunization tasks?

	Often	Not Often	Never	No. of Responses *
Screening patients				
▪ OJT	84 (65.6%)	38 (29.7%)	6 (4.7%)	128
▪ MA Graduate	317 (73.7%)	91 (21.2%)	22 (5.1%)	430
▪ RMA	137 (82.5%)	23 (13.9%)	6 (3.6%)	166
▪ CMA	675 (74.8%)	196 (21.7%)	31 (3.4%)	902
Educating patients/parents				
▪ OJT	88 (68.2%)	35 (27.1%)	6 (4.7%)	129
▪ MA Graduate	322 (75.4%)	98 (23.0%)	7 (1.6%)	427
▪ RMA	148 (89.7%)	15 (9.1%)	2 (1.2%)	165
▪ CMA	707 (78.2%)	184 (20.4%)	13 (1.4%)	904
Administering vaccines				
▪ OJT	83 (64.8%)	24 (18.8%)	21 (16.4%)	128
▪ MA Graduate	354 (82.3%)	65 (15.1%)	11 (2.6%)	430
▪ RMA	143 (84.6%)	16 (9.5%)	10 (5.9%)	169
▪ CMA	760 (83.5%)	119 (13.1%)	31 (3.4%)	910
Record keeping and/or documentation in patient record (e.g. type of vaccine, date given, route, site, lot number, VIS date)				
▪ OJT	100 (77.5%)	24 (18.6%)	5 (3.9%)	129
▪ MA Graduate	379 (88.3%)	46 (10.7%)	4 (0.9%)	429
▪ RMA	156 (93.4%)	9 (5.4%)	2 (1.2%)	167
▪ CMA	803 (88.1%)	98 (10.8%)	10 (1.1%)	911
Entering immunizations into State Immunization Registry				
▪ OJT	61 (47.7%)	19 (14.8%)	48 (37.5%)	128
▪ MA Graduate	213 (49.7%)	64 (14.9%)	152 (35.4%)	429
▪ RMA	90 (53.9%)	21 (12.6%)	56 (33.5%)	167
▪ CMA	416 (46.3%)	165 (18.4%)	318 (35.4%)	899
Storage and/or handling of vaccines				
▪ OJT	97 (76.4%)	18 (14.2%)	12 (9.4%)	127
▪ MA Graduate	337 (79.9%)	70 (16.6%)	15 (3.6%)	422
▪ RMA	140 (83.8%)	16 (9.6%)	11 (6.6%)	167
▪ CMA	718 (79.7%)	141 (15.6%)	42 (4.7%)	901
Ordering vaccines/Supply management				
▪ OJT	67 (52.3%)	28 (21.9%)	33 (25.8%)	128
▪ MA Graduate	176 (41.1%)	85 (19.9%)	167 (39.0%)	428
▪ RMA	84 (51.5%)	31 (19.0%)	48 (29.4%)	163
▪ CMA	399 (44.1%)	195 (21.5%)	311 (34.4%)	905

	Often	Not Often	Never	No. of Responses *
Coding and/or billing of immunization services				
▪ OJT	48 (38.1%)	22 (17.5%)	56 (44.4%)	126
▪ MA Graduate	143 (34.0%)	92 (21.9%)	185 (44.0%)	420
▪ RMA	57 (35.0%)	42 (25.8%)	64 (39.3%)	163
▪ CMA	335 (37.1%)	221 (24.5%)	347 (38.4%)	903
Scheduling immunization clinics (e.g. flu shot clinics)				
▪ OJT	50 (39.7%)	37 (29.4%)	39 (31.0%)	126
▪ MA Graduate	168 (39.5%)	112 (26.4%)	145 (34.1%)	425
▪ RMA	71 (42.8%)	38 (22.9%)	57 (34.3%)	166
▪ CMA	386 (42.6%)	235 (25.9%)	285 (31.5%)	906
Maintaining reminder/recall systems regarding immunization				
▪ OJT	46 (35.9%)	39 (30.5%)	43 (33.6%)	128
▪ MA Graduate	160 (38.1%)	101 (24.0%)	159 (37.9%)	420
▪ RMA	67 (40.9%)	49 (29.9%)	48 (29.3%)	164
▪ CMA	289 (31.9%)	283 (31.3%)	333 (36.8%)	905
Assessing immunization rates				
▪ OJT	32 (25.6%)	33 (26.4%)	60 (48.0%)	125
▪ MA Graduate	108 (25.7%)	75 (17.9%)	237 (56.4%)	420
▪ RMA	44 (27.5%)	32 (20.0%)	84 (52.5%)	160
▪ CMA	168 (18.8%)	244 (27.4%)	480 (53.8%)	892
Training of other staff members on issues related to immunizations				
▪ OJT	62 (49.2%)	32 (25.4%)	32 (25.4%)	126
▪ MA Graduate	187 (44.3%)	138 (32.7%)	97 (23.0%)	422
▪ RMA	90 (54.5%)	45 (27.3%)	30 (18.2%)	165
▪ CMA	400 (44.3%)	301 (33.3%)	202 (22.4%)	903

* Totals do not add up to total number of medical assistants, due to missing records.

When asked to identify when respondents participate in immunization-related trainings, the highest percent of responses received from all four groups was “when a doctor or other medical staff offers training in my office setting” (ranging from 25.0% for OJTs to 26.4% for MA graduates). “When there is a change in immunization recommendations” was the second highest response for all four groups (ranging from 22.0% for CMAs to 22.3% for OJTs). Although a rather small response, OJT medical assistants indicated, more often than the other groups (5.5%) that they had “never participated in any training related to immunizations” (Table 25).

Table 25: When have you participated in trainings related to immunizations?

	OJT	MA Graduate	RMA	CMA
I have never participated in any training related to immunizations	16 (5.5%)	22 (2.4%)	4 (1.0%)	35 (1.7%)
When there is a change in immunization recommendations	65 (22.3%)	199 (22.2%)	87 (22.1%)	460 (22.0%)
When a new schedule is published	54 (18.5%)	154 (17.1%)	71 (18.1%)	360 (17.2%)
When a new vaccine is licensed	62 (21.2%)	162 (18.0%)	85 (21.6%)	430 (20.5%)
When a doctor or other medical staff offers training in my office setting	73 (25.0%)	237 (26.4%)	99 (25.2%)	549 (26.2%)
I have not participated in training related to immunizations since I was in school	2 (0.7%)	65 (7.2%)	22 (5.6%)	133 (6.4%)
Other	20 (6.8%)	59 (6.6%)	25 (6.4%)	127 (6.1%)
Total *	292 (100.0%)	898 (100.0%)	393 (100.0%)	2094 (100.0%)

* Respondents were able to mark more than one response.

When asked to identify what resources respondents use to update their immunization knowledge, the two leading responses for all four groups were “in-house staff (physician, office manager, nurse)” (with rates ranging from 21.4% to 22.3%) followed by “vaccine manufacturer’s literature or representatives” (with rates ranging from 18.8% to 21.0%). The “CDC” received the third highest response rates (rates ranging from 16.6% to 18.9%) (Table 26).

Table 26: What resources do you use to update your immunization knowledge?

	OJT	MA Graduate	RMA	CMA
I have never updated my knowledge base regarding immunizations	6 (1.4%)	24 (2.0%)	3 (0.6%)	24 (0.9%)
American Academy of Family Physicians (AAFP)	15 (3.6%)	35 (2.9%)	18 (3.5%)	93 (3.3%)
American Academy of Pediatrics (AAP)	42 (10.0%)	98 (8.2%)	41 (8.0%)	203 (7.2%)
American College of Obstetricians and Gynecologists (ACOG)	3 (0.7%)	7 (0.6%)	5 (1.0%)	29 (1.0%)
American College of Physicians (ACP)	5 (1.2%)	8 (0.7%)	4 (0.8%)	23 (0.8%)
Centers for Disease Control and Prevention (CDC)	70 (16.7%)	199 (16.6%)	91 (17.7%)	531 (18.9%)
In-house staff (physician, office manager, nurse)	93 (22.1%)	268 (22.3%)	110 (21.4%)	618 (21.9%)
Local vocational/technical school or community college	3 (0.7%)	27 (2.3%)	7 (1.4%)	53 (1.9%)
Online state immunization registry	32 (7.6%)	113 (9.4%)	45 (8.8%)	232 (8.2%)
State health department immunization program	61 (14.5%)	171 (14.3%)	76 (14.8%)	415 (14.7%)
Vaccine manufacturer's literature or representatives	79 (18.8%)	232 (19.3%)	108 (21.0%)	546 (19.4%)
Other	11 (2.6%)	18 (1.5%)	6 (1.2%)	49 (1.7%)
Total *	420 (100.0%)	1200 (100.0%)	514 (100.0%)	2816 (100.0%)

* Respondents were able to mark more than one response.

As shown in Table 27, all four groups of respondents indicated high rates of importance for most of the suggested topics. The two topics receiving the highest percentages of importance for OJTs were “adverse reactions or ‘side effects’” (90.4%) and “immunization schedules” (88.1%). The two topics receiving the highest percentages of importance for MA graduates were “adverse reactions or ‘side effects’” (91.4%) and “administering vaccines” (89.5%). The two topics receiving the highest percentages of importance for RMAs were “educating patients/parents (i.e., health communication)” (94.4%) and “adverse reactions or ‘side effects’” (94.0%). The two topics receiving the highest percentages of importance for CMAs were “adverse reactions or ‘side effects’” (91.8%) and “educating patients/parents (i.e., health communication)” (90.2%).

For each group of medical assistants, the topics that received the highest percentage ranking as not important were “assessing immunization rates” (selected as not important by the most OJTs, RMAs and CMAs) and “coding and/or billing of immunization services” (selected as not important by the most MA graduates).

Table 27: To help you do your job better, how important is it for you to have training in the following topics?

	Important	Neutral	Not Important	No. of Responses*
Screening patients				
▪ OJT	99 (78.6%)	14 (11.1%)	13 (10.3%)	126
▪ MA Graduate	350 (81.2%)	47 (10.9%)	34 (7.9%)	431
▪ RMA	147 (88.6%)	13 (7.8%)	6 (3.6%)	166
▪ CMA	747 (82.6%)	103 (11.4%)	54 (6.0%)	904
Educating patients/parents (i.e. health communication)				
▪ OJT	108 (85.7%)	11 (8.7%)	7 (5.6%)	126
▪ MA Graduate	368 (86.6%)	36 (8.5%)	21 (4.9%)	425
▪ RMA	152 (94.4%)	6 (3.7%)	3 (1.9%)	161
▪ CMA	818 (90.2%)	55 (6.1%)	34 (3.7%)	907
Administering vaccines				
▪ OJT	97 (77.0%)	10 (7.9%)	19 (15.1%)	126
▪ MA Graduate	383 (89.5%)	24 (5.6%)	21 (4.9%)	428
▪ RMA	152 (91.0%)	5 (3.0%)	10 (6.0%)	167
▪ CMA	802 (88.7%)	53 (5.9%)	49 (5.4%)	904
Record keeping and/or documentation in patient record (e.g. type of vaccine, date given, route, site, lot number, VIS date)				
▪ OJT	105 (82.7%)	14 (11.0%)	8 (6.3%)	127
▪ MA Graduate	374 (87.6%)	28 (6.6%)	25 (5.9%)	427
▪ RMA	152 (92.7%)	3 (1.8%)	9 (5.5%)	164
▪ CMA	785 (86.7%)	63 (7.0%)	57 (6.3%)	905
Entering immunizations into State Immunization Registry				
▪ OJT	88 (69.8%)	16 (12.7%)	22 (17.5%)	126
▪ MA Graduate	324 (76.1%)	41 (9.6%)	61 (14.3%)	426
▪ RMA	124 (75.2%)	20 (12.1%)	21 (12.7%)	165
▪ CMA	640 (71.7%)	122 (13.7%)	131 (14.7%)	893
Storage and/or handling of vaccines				
▪ OJT	107 (84.3%)	9 (7.1%)	11 (8.7%)	127
▪ MA Graduate	367 (86.8%)	30 (7.1%)	26 (6.1%)	423
▪ RMA	147 (89.6%)	9 (5.5%)	8 (4.9%)	164
▪ CMA	771 (85.6%)	79 (8.8%)	51 (5.7%)	901

	Important	Neutral	Not Important	No. of Responses*
Ordering vaccines/supply management				
▪ OJT	82 (65.1%)	17 (13.5%)	27 (21.4%)	126
▪ MA Graduate	294 (69.8%)	48 (11.4%)	79 (18.8%)	421
▪ RMA	124 (75.2%)	20 (12.1%)	21 (12.7%)	165
▪ CMA	567 (62.9%)	152 (16.9%)	183 (20.3%)	902
Coding and/or billing of immunization services				
▪ OJT	63 (50.4%)	18 (14.4%)	44 (35.2%)	125
▪ MA Graduate	244 (58.4%)	70 (16.7%)	104 (24.9%)	418
▪ RMA	102 (62.2%)	30 (18.3%)	32 (19.5%)	164
▪ CMA	493 (55.4%)	147 (16.5%)	250 (28.1%)	890
Scheduling immunization clinics (e.g. flu shot clinics)				
▪ OJT	70 (55.6%)	29 (23.0%)	27 (21.4%)	126
▪ MA Graduate	258 (61.0%)	68 (16.1%)	97 (22.9%)	423
▪ RMA	102 (62.2%)	28 (17.1%)	34 (20.7%)	164
▪ CMA	497 (55.5%)	166 (18.5%)	232 (25.9%)	895
Maintaining reminder/recall systems regarding immunization				
▪ OJT	83 (66.4%)	21 (16.8%)	211 (16.8%)	125
▪ MA Graduate	264 (63.0%)	71 (16.9%)	84 (20.0%)	419
▪ RMA	112 (68.7%)	27 (16.6%)	24 (14.7%)	163
▪ CMA	524 (58.4%)	159 (17.7%)	214 (23.9%)	897
Assessing immunization rates				
▪ OJT	59 (48.0%)	17 (13.8%)	47 (38.2%)	123
▪ MA Graduate	238 (56.9%)	77 (18.4%)	103 (24.6%)	418
▪ RMA	86 (54.4%)	26 (16.5%)	46 (29.1%)	158
▪ CMA	422 (47.5%)	188 (21.1%)	279 (31.4%)	889
Training of other staff members on issues related to immunizations				
▪ OJT	96 (77.4%)	16 (12.9%)	12 (9.7%)	124
▪ MA Graduate	332 (78.3%)	41 (9.7%)	51 (12.0%)	424
▪ RMA	135 (83.3%)	18 (11.1%)	9 (5.6%)	162
▪ CMA	689 (76.2%)	104 (11.5%)	111 (12.3%)	904
Immunization schedules				
▪ OJT	111 (88.1%)	10 (7.9%)	5 (4.0%)	126
▪ MA Graduate	367 (86.4%)	39 (9.2%)	19 (4.5%)	425
▪ RMA	142 (87.1%)	10 (6.1%)	11 (6.7%)	163
▪ CMA	779 (86.8%)	63 (7.0%)	55 (6.1%)	897

	Important	Neutral	Not Important	No. of Responses*
Vaccine Information Statements (VIS)				
▪ OJT	104 (83.2%)	14 (11.2%)	7 (5.6%)	125
▪ MA Graduate	360 (86.5%)	31 (7.5%)	25 (6.0%)	416
▪ RMA	142 (86.1%)	14 (8.5%)	9 (5.5%)	165
▪ CMA	738 (83.1%)	89 (10.0%)	61 (6.9%)	888
Vaccines required for international travel				
▪ OJT	78 (62.4%)	29 (23.2%)	18 (14.4%)	125
▪ MA Graduate	296 (70.3%)	60 (14.3%)	65 (15.4%)	421
▪ RMA	111 (68.5%)	33 (20.4%)	18 (11.1%)	162
▪ CMA	586 (65.4%)	167 (18.6%)	143 (16.0%)	896
Clinical information about disease				
▪ OJT	95 (76.0%)	23 (18.4%)	7 (5.6%)	125
▪ MA Graduate	367 (87.0%)	32 (7.6%)	23 (5.5%)	422
▪ RMA	197 (90.7%)	11 (6.8%)	4 (2.5%)	162
▪ CMA	760 (84.9%)	92 (10.3%)	43 (4.8%)	895
Risk communication (e.g. discussion of vaccine safety issues)				
▪ OJT	108 (85.7%)	13 (10.3%)	5 (4.0%)	126
▪ MA Graduate	377 (88.7%)	32 (7.5%)	16 (3.8%)	425
▪ RMA	155 (92.8%)	6 (3.6%)	6 (3.6%)	167
▪ CMA	783 (87.0%)	81 (9.0%)	36 (4.0%)	900
Adverse reactions or “side effects”				
▪ OJT	113 (90.4%)	8 (6.4%)	4 (3.2%)	125
▪ MA Graduate	383 (91.4%)	21 (5.0%)	15 (3.6%)	419
▪ RMA	157 (94.0%)	7 (4.2%)	3 (1.8%)	167
▪ CMA	821 (91.8%)	48 (5.4%)	25 (2.8%)	894

* Totals do not add up to total number of medical assistants, due to missing records.

The top two preferred training delivery methods for each of the four groups of medical assistants were in-service activities, either by a nurse or physician staff in their office (rates ranging from 76.4% for OJTs to 87.8% for MA graduates) or by other lecturers such as pharmaceutical representatives, nurse from a technical college or public health staff (rates ranging from 82.1% for OJTs to 87.6% for CMAs). More than fifty percent of medical assistants in all four groups indicated that the two training delivery methods that they did not prefer were audio recordings (CD, MP3 and cassettes) and satellite broadcasts, webcasts, or net-conferences with no interaction with the instructor (Table 28).

Table 28: In the future, how would you prefer to receive immunization training?

	Prefer	Neutral	Do Not Prefer	No. of Responses*
In-service by staff in your office (e.g., lunch 'n learn with nurse or physician)				
▪ OJT	94 (76.4%)	19 (15.4%)	10 (8.1%)	123
▪ MA Graduate	373 (87.8%)	27 (6.4%)	25 (5.9%)	425
▪ RMA	137 (83.0%)	13 (7.9%)	15 (9.1%)	165
▪ CMA	739 (84.2%)	74 (8.4%)	65 (7.4%)	878
In-service by other lecturers (e.g., lunch 'n learn with pharmaceutical rep, nurse from technical college, public health staff, etc.)				
▪ OJT	101 (82.1%)	9 (7.3%)	13 (10.6%)	123
▪ MA Graduate	363 (87.3%)	29 (7.0%)	24 (5.8%)	416
▪ RMA	136 (84.5%)	16 (9.9%)	9 (5.6%)	161
▪ CMA	763 (87.6%)	54 (6.2%)	54 (6.2%)	871
In-person lecture outside your office setting				
▪ OJT	69 (59.0%)	15 (12.8%)	33 (28.2%)	117
▪ MA Graduate	222 (54.8%)	69 (17.0%)	114 (28.1%)	405
▪ RMA	92 (58.6%)	34 (21.7%)	31 (19.7%)	157
▪ CMA	480 (57.4%)	149 (17.8%)	207 (24.8%)	836
In-person conference or symposium (an activity that is more than a single lecture)				
▪ OJT	62 (55.4%)	17 (15.2%)	33 (29.5%)	112
▪ MA Graduate	223 (56.2%)	73 (18.4%)	101 (25.4%)	397
▪ RMA	82 (52.2%)	43 (27.4%)	32 (20.4%)	157
▪ CMA	450 (53.9%)	155 (18.6%)	230 (27.5%)	835
Satellite broadcast, webcast, or net-conference where there is interaction with the instructor				
▪ OJT	40 (36.0%)	19 (17.1%)	52 (46.8%)	111
▪ MA Graduate	136 (34.0%)	83 (20.8%)	181 (45.3%)	400
▪ RMA	62 (39.5%)	38 (24.2%)	57 (36.3%)	157
▪ CMA	301 (36.4%)	164 (19.9%)	361 (43.7%)	826
Satellite broadcast, webcast, or net-conference where there is <u>no</u> interaction with the instructor				
▪ OJT	21 (19.8%)	23 (21.7%)	62 (58.5%)	106
▪ MA Graduate	105 (26.7%)	78 (19.8%)	210 (53.4%)	393
▪ RMA	40 (26.3%)	35 (23.0%)	77 (50.7%)	152
▪ CMA	213 (26.2%)	148 (18.2%)	451 (55.5%)	812

	Prefer	Neutral	Do Not Prefer	No. of Responses*
Audio recording (CD, MP3, cassette)				
▪ OJT	14 (13.1%)	30 (28.0%)	63 (58.9%)	107
▪ MA Graduate	77 (19.5%)	72 (18.3%)	245 (62.2%)	394
▪ RMA	32 (20.8%)	34 (22.1%)	88 (57.1%)	154
▪ CMA	187 (23.1%)	138 (17.1%)	484 (59.8%)	809
Self-study interactive multimedia (CD-ROM, DVD, web-based)				
▪ OJT	54 (47.4%)	24 (21.1%)	36 (31.6%)	114
▪ MA Graduate	152 (38.3%)	83 (20.9%)	162 (40.8%)	397
▪ RMA	74 (48.1%)	31 (20.1%)	49 (31.8%)	154
▪ CMA	368 (43.8%)	176 (21.0%)	296 (35.2%)	840
Self-study print-based course or journal				
▪ OJT	55 (49.1%)	21 (18.8%)	36 (32.1%)	112
▪ MA Graduate	158 (39.8%)	84 (21.2%)	155 (39.0%)	397
▪ RMA	75 (48.1%)	30 (19.2%)	51 (32.7%)	156
▪ CMA	405 (48.5%)	161 (19.3%)	269 (32.2%)	835

* Totals do not add up to total number of medical assistants, due to missing records.

As shown in Table 29, the educational strategy preferred by the largest percent of medical assistants in all four groups was “problem-based learning” (percentage of “prefer” responses ranged from 77.7% of MA graduates to 81.0% of OJTs). The educational strategy not preferred by the largest percent of medical assistants in all four groups was “role plays” (percentages of “do not prefer” responses ranged from 28.6% for RMA to 43.1% for OJTs).

Table 29: In the future, what educational strategies would you prefer?

	Prefer	Neutral	Do Not Prefer	No. of Responses*
Case studies				
▪ OJT	94 (77.0%)	17 (13.9%)	11 (9.0%)	122
▪ MA Graduate	299 (70.5%)	66 (15.6%)	59 (13.9%)	424
▪ RMA	120 (73.6%)	27 (16.6%)	16 (9.8%)	163
▪ CMA	688 (77.1%)	126 (14.1%)	78 (8.7%)	892
Educational games				
▪ OJT	61 (50.8%)	32 (26.7%)	27 (22.5%)	120
▪ MA Graduate	251 (61.7%)	74 (18.2%)	82(20.1%)	407
▪ RMA	101 (62.3%)	29 (17.9%)	32 (19.8%)	162
▪ CMA	503 (58.1%)	167 (19.3%)	196 (22.6%)	866
Role plays				
▪ OJT	42 (36.2%)	24 (20.7%)	50 (43.1%)	116
▪ MA Graduate	197 (48.3%)	87 (21.3%)	124 (30.4%)	408
▪ RMA	68 (42.2%)	47 (29.2%)	46 (28.6%)	161
▪ CMA	344 (40.0%)	184 (21.4%)	332 (38.6%)	860
Simulations				
▪ OJT	80 (66.7%)	20 (16.7%)	20 (16.7%)	120
▪ MA Graduate	300 (71.6%)	60 (14.3%)	59 (14.1%)	419
▪ RMA	104 (65.8%)	35 (22.2%)	19 (12.0%)	158
▪ CMA	594 (67.4%)	151 (17.1%)	136 (15.4%)	881
Problem-based learning				
▪ OJT	98 (81.0%)	15 (12.4%)	8 (6.6%)	121
▪ MA Graduate	327 (77.7%)	58 (13.8%)	36 (8.6%)	421
▪ RMA	127 (78.9%)	17 (10.6%)	17 (10.6%)	161
▪ CMA	706 (79.8%)	113 (12.8%)	66 (7.5%)	885

* Totals do not add up to total number of medical assistants, due to missing records.

When asked to indicate how much several factors motivated respondents to participate in immunization training, the leading factor that greatly motivated OJTs, RMAs and CMAs was “learning new or updated information” (96.9% for OJTs, 97.6% for RMAs and 95.6% for CMAs). The leading factor that greatly motivated MA graduates was a “requirement for their current job” (94.3%), although it was only three tens of a percent less than those MA graduates who indicated that “learning new or updated information” greatly motivated them (94.0%).

Ninety-three point six percent (93.6%) of CMAs, 90.4% of RMAs and 81.9% of MA graduates were greatly motivated to participate in immunization training if continuing education credit (CEUs) were offered; whereas, only 74.2% of OJTs were greatly motivated by this factor (Table 30).

When asked to indicate how much several factors were a barrier to respondents participating in immunization training, the leading barrier for OJTs and CMAs was finding time during their work schedule (43.7% and 49.7%, respectively). The leading barrier for MA graduates was not being aware of available trainings (45.6%) and for RMAs was the costs of the training (45.0%) (Table 31).

Table 30: Please indicate how much each factor motivates you to participate in immunization training.

	Greatly Motivates	Neutral	Does Not Motivate	No. of Responses*
Learning new or updated information (e.g., new schedule, new recommendations)				
▪ OJT	124 (96.9%)	4 (3.1%)	0 (0.0%)	128
▪ MA Graduate	406 (94.0%)	19 (4.4%)	7 (1.6%)	423
▪ RMA	164 (97.6%)	4 (2.4%)	0 (0.0%)	168
▪ CMA	871 (95.6%)	34 (3.7%)	6 (0.7%)	911
Requirement for my current job				
▪ OJT	113 (90.4%)	8 (6.4%)	4 (3.2%)	125
▪ MA Graduate	400 (94.3%)	17 (4.0%)	7 (1.7%)	424
▪ RMA	157 (94.6%)	6 (3.6%)	3 (1.8%)	166
▪ CMA	847 (94.1%)	40 (4.4%)	13 (1.4%)	900
Recommendation from my supervisor				
▪ OJT	94 (78.3%)	16 (13.3%)	10 (8.3%)	120
▪ MA Graduate	373 (88.2%)	30 (7.1%)	20 (4.7%)	423
▪ RMA	138 (86.3%)	17 (10.6%)	5 (3.1%)	160
▪ CMA	756 (85.4%)	101 (11.4%)	28 (3.2%)	885
Increase in salary potential				
▪ OJT	101 (82.8%)	12 (9.8%)	9 (7.4%)	122
▪ MA Graduate	379 (89.8%)	28 (6.6%)	15 (3.6%)	422
▪ RMA	152 (93.8%)	4 (2.5%)	6 (3.7%)	162
▪ CMA	806 (90.1%)	54 (6.0%)	35 (3.9%)	895
Earning continuing education units (CEUs)				
▪ OJT	92 (74.2%)	11 (8.9%)	21 (16.9%)	124
▪ MA Graduate	349 (81.9%)	39 (9.2%)	38 (8.9%)	426
▪ RMA	150 (90.4%)	10 (6.0%)	6 (3.6%)	166
▪ CMA	845 (93.6%)	32 (3.5%)	26 (2.9%)	903
Competitiveness in the job market				
▪ OJT	94 (77.7%)	13 (10.7%)	14 (11.6%)	121
▪ MA Graduate	363 (86.0%)	33 (7.8%)	26 (6.2%)	422
▪ RMA	136 (84.5%)	13 (8.1%)	12 (7.5%)	161
▪ CMA	783 (87.4%)	72 (8.0%)	41 (4.6%)	896

* Totals do not add up to total number of medical assistants, due to missing records.

Table 31: Please indicate how much each factor is a barrier to you participating in immunization training.

	No Barrier	Neutral	Large Barrier	No. of Responses*
Finding time during work schedule				
▪ OJT	45 (35.7%)	26 (20.6%)	55 (43.7%)	126
▪ MA Graduate	158 (36.9%)	85 (19.9%)	185 (43.2%)	428
▪ RMA	72 (43.1%)	31 (18.6%)	64 (38.3%)	167
▪ CMA	291 (32.3%)	162 (18.0%)	447 (49.7%)	900
Competing family commitments				
▪ OJT	59 (48.0%)	29 (23.6%)	35 (28.5%)	123
▪ MA Graduate	185 (44.4%)	101 (24.2%)	131 (31.4%)	417
▪ RMA	69 (43.7%)	42 (26.6%)	47 (29.7%)	158
▪ CMA	398 (44.8%)	198 (22.3%)	293 (33.0%)	889
Training happens too far from where I work				
▪ OJT	51 (43.6%)	22 (18.8%)	44 (37.6%)	117
▪ MA Graduate	172 (41.1%)	90 (21.5%)	157 (37.5%)	419
▪ RMA	68 (41.5%)	33 (20.1%)	63 (38.4%)	164
▪ CMA	357 (40.3%)	185 (20.9%)	344 (38.8%)	886
Cost of training				
▪ OJT	53 (44.5%)	20 (16.8%)	46 (38.7%)	119
▪ MA Graduate	150 (36.1%)	89 (21.4%)	177 (42.5%)	416
▪ RMA	59 (36.9%)	29 (18.1%)	72 (45.0%)	160
▪ CMA	311 (35.1%)	177 (20.0%)	397 (44.9%)	885
Management's lack of support of training				
▪ OJT	72 (62.6%)	17 (14.8%)	26 (22.6%)	115
▪ MA Graduate	236 (56.6%)	78 (18.7%)	103 (24.7%)	417
▪ RMA	87 (54.0%)	36 (22.4%)	38 (23.6%)	161
▪ CMA	472 (53.5%)	164 (18.6%)	247 (28.0%)	883
Identifying trainings appropriate for my needs				
▪ OJT	65 (55.1%)	31 (26.3%)	22 (18.6%)	118
▪ MA Graduate	225 (54.1%)	107 (25.7%)	84 (20.2%)	416
▪ RMA	89 (55.6%)	42 (26.3%)	29 (18.1%)	160
▪ CMA	478 (54.0%)	244 (27.6%)	163 (18.4%)	885
Not aware of available trainings				
▪ OJT	45 (37.2%)	24 (19.8%)	52 (43.0%)	121
▪ MA Graduate	151 (36.0%)	77 (18.4%)	191 (45.6%)	419
▪ RMA	67 (41.6%)	32 (19.9%)	62 (38.5%)	161
▪ CMA	311 (35.2%)	171 (19.4%)	401 (45.4%)	883

* Totals do not add up to total number of medical assistants, due to missing records.

Type of Healthcare Setting

The following analyses were conducted by the two most common healthcare settings in which respondents work:

- Physician’s office (MD Office) (N=1217)
- Community Health Center (CHC) (N=196)

As shown in Table 32, there is a general tendency for each of the two groups of respondents to indicate that they do the same types of tasks more often than others. The two tasks performed often by the most respondents in both groups were “record keeping and/or documentation in patient record” (identified by 88.7% of medical assistants in a physician’s office and 87.7% of medical assistants in a CHC) and “administering vaccines” (identified by 83.8% of medical assistants in a physician’s office and 79.8% of medical assistants in a CHC).

Similarly, the two tasks never performed by the most respondents in both groups of medical assistants were “assessing immunization rates” and “coding and/or billing of immunization services.” Nearly fifty-five percent (54.5%) of medical assistants in a physician’s office and 47.4% of medical assistants in a CHC indicated that they never assessed immunization rates; 40.1% of medical assistants in a physician’s office and 44.7% of medical assistants in a CHC never coded and/or billed for immunization services.

Table 32: How often do you perform each of the following immunization tasks?

	Often	Not Often	Never	No. of Responses *
Screening patients				
▪ MD Office	890 (74.2%)	264 (22.0%)	46 (3.8%)	1200
▪ CHC	150 (78.9%)	34 (17.9%)	6 (3.2%)	190
Educating patients/parents				
▪ MD Office	943 (78.7%)	236 (19.7%)	19 (1.6%)	1198
▪ CHC	148 (77.9%)	38 (20.0%)	4 (2.1%)	190
Administering vaccines				
▪ MD Office	1014 (83.8%)	150 (12.4%)	46 (3.8%)	1210
▪ CHC	154 (79.8%)	32 (16.6%)	7 (3.6%)	193
Record keeping and/or documentation in patient record (e.g. type of vaccine, date given, route, site, lot number, VIS date)				
▪ MD Office	1070 (88.7%)	121 (10.0%)	15 (1.2%)	1206
▪ CHC	171 (87.7%)	23 (11.8%)	1 (0.5%)	195
Entering immunizations into State Immunization Registry				
▪ MD Office	568 (47.4%)	194 (16.2%)	436 (36.4%)	1198
▪ CHC	104 (53.6%)	34 (17.5%)	56 (28.9%)	194

	Often	Not Often	Never	No. of Responses *
Storage and/or handling of vaccines				
▪ MD Office	971 (81.3%)	174 (14.6%)	50 (4.2%)	1195
▪ CHC CMA	147 (78.2%)	33 (17.6%)	8 (4.3%)	188
Ordering vaccines/Supply management				
▪ MD Office	557 (46.2%)	252 (20.9%)	396 (32.9%)	1205
▪ CHC	87 (45.3%)	30 (15.6%)	75 (39.1%)	192
Coding and/or billing of immunization services				
▪ MD Office	414 (34.8%)	299 (25.1%)	477 (40.1%)	1190
▪ CHC	66 (35.1%)	38 (20.2%)	84 (44.7%)	188
Scheduling immunization clinics (e.g. flu shot clinics)				
▪ MD Office	493 (41.2%)	311 (26.0%)	394 (32.9%)	1198
▪ CHC	74 (38.5%)	60 (31.3%)	58 (30.2%)	192
Maintaining reminder/recall systems regarding immunization				
▪ MD Office	403 (33.8%)	352 (29.6%)	436 (36.6%)	1191
▪ CHC	81 (42.4%)	52 (27.2%)	58 (30.4%)	191
Assessing immunization rates				
▪ MD Office	251 (21.3%)	286 (24.2%)	643 (54.5%)	1180
▪ CHC	54 (28.4%)	46 (24.2%)	90 (47.4%)	190
Training of other staff members on issues related to immunizations				
▪ MD Office	543 (45.7%)	372 (31.3%)	274 (23.0%)	1189
▪ CHC	90 (46.6%)	65 (33.7%)	38 (19.7%)	193

* Totals do not add up to total number of medical assistants, due to missing records.

When asked to identify when respondents participate in trainings related to immunizations, the highest percent of responses received from both groups was “when a doctor or other medical staff offers training in my office setting” (25.8% for medical assistants in a physician’s office and 25.7% for medical assistants in a CHC). “When there is a change in immunization recommendations” received the second highest response for both groups (21.9% for medical assistants in a physician’s office and 22.7% for medical assistants in a CHC) (Table 33).

Table 33: When have you participated in trainings related to immunizations?

	MD Office	CHC
I have never participated in any training related to immunizations	55 (2.0%)	8 (1.7%)
When there is a change in immunization recommendations	591 (21.9%)	104 (22.7%)
When a new schedule is published	474 (17.5%)	84 (18.3%)
When a new vaccine is licensed	553 (20.5%)	86 (18.7%)
When a doctor or other medical staff offers training in my office setting	697 (25.8%)	118 (25.7%)
I have not participated in training related to immunizations since I was in school	170 (6.3%)	17 (3.7%)
Other	161 (6.0%)	42 (9.2%)
Total *	2701 (100.0%)	459 (100.0%)

* Respondents were able to mark more than one response.

When asked to identify what resources respondents used to update their immunization knowledge, the leading two responses for both groups was “in-house staff (physician, office manager, nurse)” (21.8% for medical assistants in a physician’s office and 20.4% for medical assistants in a CHC), followed by “vaccine manufacturer’s literature or representatives” (20.2% for medical assistants in a physician’s office and 18.8% for medical assistants in a CHC). The “CDC” received the third highest response rates (17.7% for medical assistants in a physician’s office and 17.8% for medical assistants in a CHC) (Table 34).

Table 34: What resources do you use to update your immunization knowledge?

	MD Office	CHC
I have never updated my knowledge base regarding immunizations	34 (0.9%)	13 (2.2%)
American Academy of Family Physicians (AAFP)	126 (3.4%)	13 (2.2%)
American Academy of Pediatrics (AAP)	310 (8.4%)	35 (6.0%)
American College of Obstetricians and Gynecologists (ACOG)	36 (1.0%)	0 (0.0%)
American College of Physicians (ACP)	33 (0.9%)	1 (0.2%)
Centers for Disease Control and Prevention (CDC)	652 (17.7%)	103 (17.8%)
In-house staff (physician, office manager, nurse)	804 (21.8%)	118 (20.4%)
Local vocational/technical school or community college	64 (1.7%)	7 (1.2%)
Online state immunization registry	310 (8.4%)	64 (11.1%)
State health department immunization program	523 (14.2%)	100 (17.3%)
Vaccine manufacturer’s literature or representatives	747 (20.2%)	109 (18.8%)
Other	54 (1.5%)	16 (2.8%)
Total *	3693 (100.0%)	579 (100.0%)

* Respondents were able to mark more than one response.

As shown in Table 35, the two topics receiving the most responses as being important for both groups of medical assistants were “adverse reactions or ‘side effects’” (91.8% for medical assistants in a physician’s office and 90.9% for medical assistants in a CHC) and “educating patients/parents (i.e., health communication)” (88.5% for medical assistants in a physician’s office and 90.1% for medical assistants in a CHC).

The topics that received the highest percentage ranking as not important for medical assistants working in a physician’s office were “assessing immunization rates” (31.5%) and “coding and/or billing of immunization services” (27.4%). The topics that received the highest percentage ranking as not important for medical assistants working in a CHC were “coding and/or billing of immunization services” (26.8%), “ordering vaccines/supply management” (21.5%) and “assessing immunization rates” (21.3%).

Table 35: To help you do your job better, how important is it for you to have training in the following topics?

	Important	Neutral	Not Important	No. of Responses*
Screening patients				
▪ MD Office	976 (81.5%)	139 (11.6%)	83 (6.9%)	1198
▪ CHC	161 (82.6%)	21 (10.8%)	13 (6.7%)	195
Educating patients/parents (i.e. health communication)				
▪ MD Office	1058 (88.5%)	91 (7.6%)	47 (3.9%)	1196
▪ CHC	173 (90.1%)	9 (4.7%)	10 (5.2%)	192
Administering vaccines				
▪ MD Office	1058 (88.4%)	70 (5.8%)	69 (5.8%)	1197
▪ CHC	171 (88.6%)	8 (4.1%)	14 (7.3%)	193
Record keeping and/or documentation in patient record (e.g. type of vaccine, date given, route, site, lot number, VIS date)				
▪ MD Office	170 (87.6%)	12 (6.2%)	12 (6.2%)	194
▪ CHC	1035 (86.6%)	84 (7.0%)	76 (6.4%)	1195
Entering immunizations into State Immunization Registry				
▪ MD Office	861 (72.5%)	149 (12.6%)	177 (14.9%)	1187
▪ CHC	143 (74.9%)	24 (12.6%)	24 (12.6%)	191
Storage and/or handling of vaccines				
▪ MD Office	1030 (86.4%)	88 (7.4%)	74 (6.2%)	1192
▪ CHC	160 (84.7%)	16 (8.5%)	13 (6.9%)	189
Ordering vaccines/supply management				
▪ MD Office	783 (65.7%)	182 (15.3%)	227 (19.0%)	1192
▪ CHC	128 (67.0%)	22 (11.5%)	41 (21.5%)	191
Coding and/or billing of immunization services				
▪ MD Office	647 (55.2%)	205 (17.5%)	321 (27.4%)	1173
▪ CHC	108 (56.8%)	31 (16.3%)	51 (26.8%)	190
Scheduling immunization clinics (e.g. flu shot clinics)				
▪ MD Office	671 (56.5%)	218 (18.4%)	298 (25.1%)	1187
▪ CHC	127 (67.6%)	30 (16.0%)	31 (16.5%)	188
Maintaining reminder/recall systems regarding immunization				
▪ MD Office	702 (59.4%)	222 (18.8%)	258 (21.8%)	1182
▪ CHC	130 (69.5%)	26 (13.9%)	31 (16.6%)	187

	Important	Neutral	Not Important	No. of Responses*
Assessing immunization rates				
▪ MD Office	560 (47.9%)	240 (20.5%)	368 (31.5%)	1168
▪ CHC	116 (61.7%)	32 (17.0%)	40 (21.3%)	188
Training of other staff members on issues related to immunizations				
▪ MD Office	915 (77.0%)	132 (11.1%)	142 (11.9%)	1189
▪ CHC	153 (80.5%)	21 (11.1%)	16 (8.4%)	190
Immunization schedules				
▪ MD Office	1026 (86.3%)	88 (7.4%)	75 (6.3%)	1189
▪ CHC	174 (89.7%)	13 (6.7%)	7 (3.6%)	194
Vaccine Information Statements (VIS)				
▪ MD Office	991 (84.0%)	107 (9.1%)	82 (6.9%)	1180
▪ CHC	155 (82.0%)	22 (11.6%)	12 (6.3%)	189
Vaccines required for international travel				
▪ MD Office	767 (64.8%)	230 (19.4%)	186 (15.7%)	1183
▪ CHC	131 (69.7%)	30 (16.0%)	27 (14.4%)	188
Clinical information about disease				
▪ MD Office	1003 (85.0%)	120 (10.2%)	57 (4.8%)	1180
▪ CHC	159 (85.0%)	20 (10.7%)	8 (4.3%)	187
Risk communication (e.g. discussion of vaccine safety issues)				
▪ MD Office	1047 (87.8%)	94 (7.9%)	51 (4.3%)	1192
▪ CHC	169 (88.0%)	16 (8.3%)	7 (3.6%)	192
Adverse reactions or “side effects”				
▪ MD Office	1091 (91.8%)	59 (5.0%)	38 (3.2%)	1188
▪ CHC	169 (90.9%)	13 (7.0%)	4 (2.2%)	186

* Totals do not add up to total number of medical assistants, due to missing records.

The top two preferred training delivery methods for both groups of medical assistants were in-service activities, either by other lecturers such as pharmaceutical representatives, nurse from a technical college, or public health staff (86.8% for medical assistants in a physician’s office and 86.6% for medical assistants in a CHC) or by a nurse or physician staff in their office (85.1% for medical assistants in a physician’s office and 83.3% for medical assistants in a CHC). More than fifty percent of medical assistants in both groups indicated that the two training delivery methods that they did not prefer were audio recordings (CD, MP3, cassettes) and satellite broadcasts, webcasts, or net-conferences with no interaction with the instructor (Table 36).

Table 36: In the future, how would you prefer to receive immunization training?

	Prefer	Neutral	Do Not Prefer	No. of Responses*
In-service by staff in your office (e.g., lunch 'n learn with nurse or physician)				
▪ MD Office	996 (85.1%)	94 (8.0%)	80 (6.8%)	1170
▪ CHC	160 (83.3%)	17 (8.9%)	15 (7.8%)	192
In-service by other lecturers (e.g., lunch 'n learn with pharmaceutical rep, nurse from technical college, public health staff, etc.)				
▪ MD Office	1007 (86.8%)	75 (6.5%)	78 (6.7%)	1160
▪ CHC	161 (86.6%)	13 (7.0%)	12 (6.5%)	186
In-person lecture outside your office setting				
▪ MD Office	632 (56.6%)	191 (17.1%)	294 (26.3%)	1117
▪ CHC	100 (54.3%)	33 (17.9%)	51 (27.7%)	184
In-person conference or symposium (an activity that is more than a single lecture)				
▪ MD Office	579 (52.2%)	211 (19.0%)	319 (28.8%)	1109
▪ CHC	97 (53.6%)	38 (21.0%)	46 (25.4%)	181
Satellite broadcast, webcast, or net-conference where there is interaction with the instructor				
▪ MD Office	386 (35.0%)	213 (19.3%)	503 (45.6%)	1102
▪ CHC	75 (41.2%)	38 (20.9%)	69 (37.9%)	182
Satellite broadcast, webcast, or net-conference where there is <u>no</u> interaction with the instructor				
▪ MD Office	277 (25.8%)	196 (18.3%)	599 (55.9%)	1072
▪ CHC	44 (24.4%)	41 (22.8%)	95 (52.8%)	180
Audio recording (CD, MP3, cassette)				
▪ MD Office	228 (21.1%)	205 (19.0%)	646 (59.9%)	1079
▪ CHC	33 (18.2%)	33 (18.2%)	115 (63.5%)	181
Self-study interactive multimedia (CD-ROM, DVD, web-based)				
▪ MD Office	491 (44.4%)	226 (20.4%)	390 (35.2%)	1107
▪ CHC	57 (31.0%)	50 (27.2%)	77 (41.8%)	184

	Prefer	Neutral	Do Not Prefer	No. of Responses*
Self-study print-based course or journal				
▪ MD Office	523 (47.5%)	221 (20.1%)	358 (32.5%)	1102
▪ CHC	71 (38.2%)	39 (21.0%)	76 (40.9%)	186

* Totals do not add up to total number of medical assistants, due to missing records.

As shown in Table 37, the educational strategy preferred by the most medical assistants in both groups was “problem-based learning” (percentage of “prefer” responses was 77.8% for medical assistants in a physician’s office and 82.5% for medical assistants in a CHC); the educational strategy not preferred by the most medical assistants in both groups was “role plays” (percentages of “do not prefer” responses were 36.5% for medical assistants in a physician’s office and 33.2% for medical assistants in a CHC).

Table 37: In the future, what educational strategies would you prefer?

	Prefer	Neutral	Do Not Prefer	No. of Responses*
Case studies				
▪ MD Office	884 (74.5%)	178 (15.0%)	124 (10.5%)	1186
▪ CHC	145 (77.1%)	24 (12.8%)	19 (10.1%)	188
Educational games				
▪ MD Office	660 (57.5%)	232 (20.2%)	255 (22.2%)	1147
▪ CHC	112 (60.5%)	29 (15.7%)	44 (23.8%)	185
Role plays				
▪ MD Office	457 (40.1%)	266 (23.4%)	416 (36.5%)	1139
▪ CHC	92 (50.0%)	31 (16.8%)	61 (33.2%)	184
Simulations				
▪ MD Office	781 (67.3%)	201 (17.3%)	179 (15.4%)	1161
▪ CHC	133 (70.7%)	26 (13.8%)	29 (15.4%)	188
Problem-based learning				
▪ MD Office	913 (77.8%)	169 (14.4%)	92 (7.8%)	1174
▪ CHC	160 (82.5%)	16 (8.2%)	18 (9.3%)	194

* Totals do not add up to total number of medical assistants, due to missing records.

When asked to indicate how much several factors motivated respondents to participate in immunization training, over 83% of medical assistants who worked in either a physician’s office or a CHC were greatly motivated by all the factors. The leading factor that greatly motivated most respondents in both worksite locations was “learning new or updated information” (95.1% for medical assistants working in a physician’s office and 94.8% for medical assistants working in a CHC) (Table 38).

When asked to indicate how much several factors were a barrier to respondents participating in immunization training, 48.9% of medical assistants working in a physician’s office indicated that finding time during their work schedule was a large barrier. Forty-five point five percent (45.5%), again the largest percentage indicating a barrier, of medical assistants working in a CHC indicated that a lack of awareness of available trainings was a large barrier.

None of the factors indicated as barriers by medical assistants working in a CHC received a higher percentage than the factors indicated as barriers for medical assistants working in a physician’s office. (Table 39).

Table 38: Please indicate how much each factor motivates you to participate in immunization training.

	Greatly Motivates	Neutral	Does Not Motivate	No. of Responses*
Learning new or updated information (e.g., new schedule, new recommendations)				
▪ MD Office	1151 (95.1%)	50 (4.1%)	9 (0.7%)	1210
▪ CHC	184 (94.8%)	8 (4.1%)	2 (1.0%)	194
Requirement for my current job				
▪ MD Office	1119 (94.0%)	51 (4.3%)	20 (1.7%)	1190
▪ CHC	177 (92.2%)	10 (5.2%)	5 (2.6%)	192
Recommendation from my supervisor				
▪ MD Office	997 (85.1%)	128 (10.9%)	47 (4.0%)	1172
▪ CHC	162 (86.6%)	17 (9.1%)	8 (4.3%)	187
Increase in salary potential				
▪ MD Office	1059 (89.6%)	76 (6.4%)	47 (4.0%)	1182
▪ CHC	169 (89.4%)	12 (6.3%)	8 (4.2%)	189
Earning continuing education units (CEUs)				
▪ MD Office	1062 (88.8%)	69 (5.8%)	65 (5.4%)	1196
▪ CHC	160 (83.3%)	14 (7.3%)	18 (9.4%)	192
Competitiveness in the job market				
▪ MD Office	1009 (85.5%)	106 (9.0%)	65 (5.5%)	1180
▪ CHC	160 (85.1%)	12 (6.4%)	16 (8.5%)	188

* Totals do not add up to total number of medical assistants, due to missing records.

Table 39: Please indicate how much each factor is a barrier to you participating in immunization training.

	No Barrier	Neutral	Large Barrier	No. of Responses*
Finding time during work schedule				
▪ MD Office	385 (32.2%)	226 (18.9%)	584 (48.9%)	1195
▪ CHC	78 (40.0%)	38 (19.5%)	79 (40.5%)	195
Competing family commitments				
▪ MD Office	510 (43.7%)	269 (23.0%)	389 (33.3%)	1168
▪ CHC	98 (51.9%)	43 (22.8%)	48 (25.4%)	189
Training happens too far from where I work				
▪ MD Office	444 (38.0%)	253 (21.7%)	470 (40.3%)	1167
▪ CHC	88 (45.8%)	40 (20.8%)	64 (33.3%)	192
Cost of training				
▪ MD Office	404 (34.6%)	234 (20.1%)	528 (45.3%)	1166
▪ CHC	76 (40.4%)	36 (19.1%)	76 (40.4%)	188
Management's lack of support of training				
▪ MD Office	626 (53.8%)	213 (18.3%)	324 (27.9%)	1163
▪ CHC	102 (54.3%)	46 (24.5%)	40 (21.3%)	188
Identifying trainings appropriate for my needs				
▪ MD Office	615 (52.6%)	314 (26.9%)	240 (20.5%)	1169
▪ CHC	113 (60.4%)	51 (27.3%)	23 (12.3%)	187
Not aware of available trainings				
▪ MD Office	416 (35.6%)	232 (19.8%)	521 (44.6%)	1169
▪ CHC	69 (36.5%)	34 (18.0%)	86 (45.5%)	189

* Totals do not add up to total number of medical assistants, due to missing records.

Geographical Location

The following analyses were conducted by geographic location of respondent’s primary place of work:

- Urban/Suburban (N=1199)
- Rural (N=464)

As shown in Table 40, there is a general tendency for both groups of respondents to indicate that they do the same types of tasks more often than others; in fact, the top five tasks performed often were the same for those medical assistants working in urban/suburban locations and in rural locations. The three leading responses by both groups of medical assistants were “record keeping and/or documentation in patient records” (87.9% for medical assistants in urban/suburban locations and 87.6% for medical assistants in rural locations); “administering vaccines” (81.0% for medical assistants in urban/suburban locations and 83.5% for medical assistants in rural locations); and “storage and/or handling of vaccines” (80.0% for medical assistants in urban/suburban locations and 79.5% for medical assistants in rural locations).

More than fifty percent (55.0% of medical assistants in urban/suburban locations and 52.0% of medical assistants in rural locations) indicated that they never “assessed immunization rates”.

Table 40: How often do you perform each of the following immunization tasks?

	Often	Not Often	Never	No. of Responses *
Screening patients				
▪ Urban/Suburban	873 (73.8%)	257 (21.7%)	53 (4.5%)	1183
▪ Rural	343 (74.9%)	105 (22.9%)	10 (2.2%)	458
Educating patients/parents				
▪ Urban/Suburban	916 (77.6%)	244 (20.7%)	21 (1.8%)	1181
▪ Rural	359 (78.2%)	93 (20.3%)	7 (1.5%)	459
Administering vaccines				
▪ Urban/Suburban	964 (81.0%)	169 (14.2%)	57 (4.8%)	1190
▪ Rural	384 (83.5%)	60 (13.0%)	16 (3.5%)	460
Record keeping and/or documentation in patient record (e.g. type of vaccine, date given, route, site, lot number, VIS date)				
▪ Urban/Suburban	1046 (87.9%)	127 (10.7%)	17 (1.4%)	1190
▪ Rural	403 (87.6%)	54 (11.7%)	3 (0.7%)	460
Entering immunizations into State Immunization Registry				
▪ Urban/Suburban	540 (45.8%)	192 (16.3%)	446 (37.9%)	1178
▪ Rural	250 (54.2%)	73 (15.8%)	138 (29.9%)	461

	Often	Not Often	Never	No. of Responses *
Storage and/or handling of vaccines				
▪ Urban/Suburban	941 (80.0%)	182 (15.5%)	53 (4.5%)	1176
▪ Rural	361 (79.5%)	68 (15.0%)	25 (5.5%)	454
Ordering vaccines/Supply management				
▪ Urban/Suburban	525 (44.5%)	246 (20.8%)	410 (34.7%)	1181
▪ Rural	213 (46.4%)	94 (20.5%)	152 (33.1%)	459
Coding and/or billing of immunization services				
▪ Urban/Suburban	438 (37.5%)	265 (22.7%)	466 (39.9%)	1169
▪ Rural	143 (31.4%)	121 (26.6%)	191 (42.0%)	455
Scheduling immunization clinics (e.g. flu shot clinics)				
▪ Urban/Suburban	483 (41.0%)	308 (26.1%)	388 (32.9%)	1179
▪ Rural	188 (41.1%)	124 (27.1%)	145 (31.7%)	457
Maintaining reminder/recall systems regarding immunization				
▪ Urban/Suburban	403 (34.4%)	329 (28.1%)	440 (37.5%)	1172
▪ Rural	159 (34.8%)	151 (33.0%)	147 (32.2%)	457
Assessing immunization rates				
▪ Urban/Suburban	254 (21.9%)	268 (23.1%)	637 (55.0%)	1159
▪ Rural	94 (20.8%)	123 (27.2%)	235 (52.0%)	452
Training of other staff members on issues related to immunizations				
▪ Urban/Suburban	541 (46.2%)	373 (31.8%)	258 (22.0%)	1172
▪ Rural	210 (46.0%)	144 (31.5%)	103 (22.5%)	457

* Totals do not add up to total number of medical assistants, due to missing records.

When asked to identify when respondents participate in trainings related to immunizations, responses from both groups were similar. The highest percent of responses received from both groups was “when a doctor or other medical staff offers training in my office setting” (26.2% for medical assistants in urban/suburban locations and 25.1% for medical assistants in rural locations). “When there is a change in immunization recommendations” was the second highest response for both groups (22.1% for medical assistants in urban/suburban locations and 21.8% for medical assistants in rural locations) (Table 41).

Table 41: When have you participated in trainings related to immunizations?

	Urban/Suburban	Rural
I have never participated in any training related to immunizations	55 (2.0%)	26 (2.6%)
When there is a change in immunization recommendations	598 (22.1%)	221 (21.8%)
When a new schedule is published	471 (17.4%)	176 (17.4%)
When a new vaccine is licensed	549 (20.3%)	196 (19.4%)
When a doctor or other medical staff offers training in my office setting	709 (26.2%)	254 (25.1%)
I have not participated in training related to immunizations since I was in school	156 (5.8%)	58 (5.7%)
Other	164 (6.1%)	81 (8.0%)
Total *	2702 (100.0%)	1012 (100.0%)

* Respondents were able to mark more than one response.

When asked to identify what resources respondents used to update their immunization knowledge, the leading two responses for both groups were “in-house staff (physician, office manager, nurse)” (22.3% for medical assistants in urban/suburban locations and 20.7% for medical assistants in rural locations), followed by “vaccine manufacturer’s literature or representatives” (19.0% for medical assistants in urban/suburban locations and 20.0% for medical assistants in rural locations). The “CDC” received the third highest response rates (18.0% for medical assistants in urban/suburban locations and 18.5% for medical assistants in rural locations) (Table 42).

Table 42: What resources do you use to update your immunization knowledge?

	Urban/Suburban	Rural
I have never updated my knowledge base regarding immunizations	44 (1.2%)	13 (0.9%)
American Academy of Family Physicians (AAFP)	115 (3.2%)	52 (3.7%)
American Academy of Pediatrics (AAP)	311 (8.6%)	85 (6.1%)
American College of Obstetricians and Gynecologists (ACOG)	36 (1.0%)	10 (0.7%)
American College of Physicians (ACP)	33 (0.9%)	10 (0.7%)
Centers for Disease Control and Prevention (CDC)	652 (18.0%)	257 (18.5%)
In-house staff (physician, office manager, nurse)	808 (22.3%)	288 (20.7%)
Local vocational/technical school or community college	69 (1.9%)	21 (1.5%)
Online state immunization registry	287 (7.9%)	141 (10.1%)
State health department immunization program	517 (14.3%)	217 (15.6%)
Vaccine manufacturer’s literature or representatives	690 (19.0%)	279 (20.0%)
Other	66 (1.8%)	19 (1.4%)
Total *	3628 (100.0%)	1392 (100.0%)

* Respondents were able to mark more than one response.

As shown in Table 43, both groups of respondents gave high rates of importance to most of the suggested topics. The two topics receiving the highest percentages of importance for medical assistants working in urban/suburban locations were “adverse reactions or ‘side effects’” (91.4%) and “educating patients/parents (i.e., health communication)” (88.6%). The two topics receiving the highest percentages of importance for medical assistants working in rural locations were “adverse reactions or ‘side effects’” (92.2%) and “administering vaccines” (91.2%).

For medical assistants in urban/suburban locations, the topics that received the highest percentage ranking as not important were “assessing immunization rates” (32.5%) and “coding and/or billing of immunization services” (27.6%). For medical assistants in rural locations, the topics that received the highest percentage ranking as not important were “coding and/or billing of immunization services” (26.7%) and “assessing immunization rates” (25.2%).

Table 43: To help you do your job better, how important is it for you to have training in the following topics?

	Important	Neutral	Not Important	No. of Responses*
Screening patients				
▪ Urban/Suburban	965 (81.8%)	129 (10.9%)	86 (7.3%)	1180
▪ Rural	385 (83.7%)	47 (10.2%)	28 (6.1%)	460
Educating patients/parents (i.e. health communication)				
▪ Urban/Suburban	1038 (88.6%)	78 (6.7%)	56 (4.8%)	1172
▪ Rural	414 (90.0%)	34 (7.4%)	12 (2.6%)	460
Administering vaccines				
▪ Urban/Suburban	1025 (86.8%)	73 (6.2%)	83 (7.0%)	1181
▪ Rural	416 (91.2%)	19 (4.2%)	21 (4.6%)	456
Record keeping and/or documentation in patient record (e.g. type of vaccine, date given, route, site, lot number, VIS date)				
▪ Urban/Suburban	1013 (86.0%)	81 (6.9%)	84 (7.1%)	1178
▪ Rural	410 (89.5%)	30 (6.6%)	18 (3.9%)	458
Entering immunizations into State Immunization Registry				
▪ Urban/Suburban	831 (70.9%)	153 (13.1%)	188 (16.0%)	1172
▪ Rural	359 (78.9%)	49 (10.8%)	47 (10.3%)	455
Storage and/or handling of vaccines				
▪ Urban/Suburban	990 (84.3%)	100 (8.5%)	84 (7.2%)	1174
▪ Rural	402 (89.1%)	28 (6.2%)	21 (4.7%)	451
Ordering vaccines/supply management				
▪ Urban/Suburban	753 (64.1%)	179 (15.2%)	243 (20.7%)	1175
▪ Rural	316 (69.8%)	64 (14.1%)	73 (16.1%)	453
Coding and/or billing of immunization services				
▪ Urban/Suburban	647 (55.6%)	195 (16.8%)	321 (27.6%)	1163
▪ Rural	252 (56.0%)	78 (17.3%)	120 (26.7%)	450
Scheduling immunization clinics (e.g. flu shot clinics)				
▪ Urban/Suburban	668 (57.1%)	203 (17.4%)	298 (25.5%)	1169
▪ Rural	267 (58.9%)	88 (19.4%)	98 (21.6%)	453
Maintaining reminder/recall systems regarding immunization				
▪ Urban/Suburban	690 (59.2%)	214 (18.4%)	261 (22.4%)	1165
▪ Rural	299 (66.3%)	65 (14.4%)	87 (19.3%)	451

	Important	Neutral	Not Important	No. of Responses*
Assessing immunization rates				
▪ Urban/Suburban	555 (48.3%)	221 (19.2%)	374 (32.5%)	1150
▪ Rural	251 (55.5%)	87 (19.2%)	114 (25.2%)	452
Training of other staff members on issues related to immunizations				
▪ Urban/Suburban	884 (75.7%)	133 (11.4%)	151 (12.9%)	1168
▪ Rural	372 (81.8%)	48 (10.5%)	35 (7.7%)	455
Immunization schedules				
▪ Urban/Suburban	1008 (86.2%)	88 (7.5%)	73 (6.2%)	1169
▪ Rural	401 (87.9%)	33 (7.2%)	22 (4.8%)	456
Vaccine Information Statements (VIS)				
▪ Urban/Suburban	964 (83.2%)	110 (9.5%)	85 (7.3%)	1159
▪ Rural	389 (86.3%)	42 (9.3%)	20 (4.4%)	451
Vaccines required for international travel				
▪ Urban/Suburban	767 (65.9%)	212 (18.2%)	185 (15.9%)	1164
▪ Rural	304 (67.6%)	83 (18.4%)	63 (14.0%)	450
Clinical information about disease				
▪ Urban/Suburban	986 (84.9%)	117 (10.1%)	59 (5.1%)	1162
▪ Rural	388 (86.0%)	44 (9.8%)	19 (4.2%)	451
Risk communication (e.g. discussion of vaccine safety issues)				
▪ Urban/Suburban	1026 (87.2%)	104 (8.8%)	47 (4.0%)	1177
▪ Rural	405 (89.2%)	34 (7.5%)	15 (3.3%)	454
Adverse reactions or “side effects”				
▪ Urban/Suburban	1070 (91.4%)	61 (5.2%)	40 (3.4%)	1171
▪ Rural	412 (92.2%)	27 (6.0%)	8 (1.8%)	447

* Totals do not add up to total number of medical assistants, due to missing records.

The leading two preferred training delivery methods for medical assistants in both urban/suburban and rural locations were in-service activities, either by a nurse or physician staff in their office or by other lecturers such as pharmaceutical representatives, nurse from a technical college or public health staff. Medical assistants in rural areas responses were equally high (83.9%) for both types of in-services, while the percentage of medical assistants in urban/suburban locations selecting in-services by other lecturers as 87.5% and by staff in their offices as 83.9%. Over fifty percent of medical assistants in both groups indicated that the two training delivery methods that they did not prefer were audio recordings(CD, MP3 and cassettes) and satellite broadcasts, webcasts, or net-conferences with no interaction with the instructor (Table 44).

Table 44: In the future, how would you prefer to receive immunization training?

	Prefer	Neutral	Do Not Prefer	No. of Responses*
In-service by staff in your office (e.g., lunch 'n learn with nurse or physician)				
▪ Urban/Suburban	976 (83.9%)	96 (8.3%)	91 (7.8%)	1163
▪ Rural	370 (83.9%)	45 (10.2%)	26 (5.9%)	441
In-service by other lecturers (e.g., lunch 'n learn with pharmaceutical rep, nurse from technical college, public health staff, etc.)				
▪ Urban/Suburban	1004 (87.5%)	78 (6.8%)	65 (5.7%)	1147
▪ Rural	366 (83.9%)	35 (8.0%)	35 (8.0%)	436
In-person lecture outside your office setting				
▪ Urban/Suburban	618 (56.1%)	195 (17.7%)	289 (26.2%)	1102
▪ Rural	255 (59.9%)	74 (17.4%)	97 (22.8%)	426
In-person conference or symposium (an activity that is more than a single lecture)				
▪ Urban/Suburban	591 (54.0%)	214 (19.5%)	290 (26.5%)	1095
▪ Rural	237 (56.2%)	79 (18.7%)	106 (25.1%)	422
Satellite broadcast, webcast, or net-conference where there is interaction with the instructor				
▪ Urban/Suburban	399 (36.6%)	209 (19.2%)	481 (44.2%)	1089
▪ Rural	150 (35.6%)	96 (22.8%)	175 (41.6%)	421
Satellite broadcast, webcast, or net-conference where there is <u>no</u> interaction with the instructor				
▪ Urban/Suburban	270 (25.4%)	205 (19.2%)	590 (55.4%)	1065
▪ Rural	115 (28.0%)	83 (20.2%)	213 (51.8%)	411
Audio recording (CD, MP3, cassette)				
▪ Urban/Suburban	231 (21.8%)	200 (18.9%)	630 (59.4%)	1061
▪ Rural	82 (19.8%)	81 (19.5%)	252 (60.7%)	415
Self-study interactive multimedia (CD-ROM, DVD, web-based)				
▪ Urban/Suburban	475 (43.6%)	230 (21.1%)	385 (35.3%)	1090
▪ Rural	178 (41.8%)	88 (20.7%)	160 (37.6%)	426

	Prefer	Neutral	Do Not Prefer	No. of Responses*
Self-study print-based course or journal				
▪ Urban/Suburban	493 (45.3%)	225 (20.7%)	371 (34.1%)	1089
▪ Rural	203 (48.0%)	83 (19.6%)	137 (32.4%)	423

* Totals do not add up to total number of medical assistants, due to missing records.

As shown in Table 45, the educational strategy preferred by the most medical assistants in both groups was “problem-based learning” (80.2% for medical assistants in urban/suburban locations and 77.6% for medical assistants in rural locations); the educational strategy not preferred by the most medical assistants in both groups was “role plays” (35.7% for medical assistants in urban/suburban locations and 37.5% for medical assistants in rural locations).

Table 45: In the future, what educational strategies would you prefer?

	Prefer	Neutral	Do Not Prefer	No. of Responses*
Case studies				
▪ Urban/Suburban	884 (75.3%)	168 (14.3%)	122 (10.4%)	1174
▪ Rural	319 (72.3%)	69 (15.6%)	53 (12.0%)	441
Educational games				
▪ Urban/Suburban	670 (58.9%)	209 (18.4%)	258 (22.7%)	1137
▪ Rural	234 (54.2%)	100 (23.1%)	98 (22.7%)	432
Role plays				
▪ Urban/Suburban	473 (42.0%)	250 (22.2%)	402 (35.7%)	1125
▪ Rural	178 (40.9%)	94 (21.6%)	163 (37.5%)	435
Simulations				
▪ Urban/Suburban	795 (69.0%)	187 (16.2%)	170 (14.8%)	1152
▪ Rural	289 (65.7%)	77 (17.5%)	74 (16.8%)	440
Problem-based learning				
▪ Urban/Suburban	928 (80.2%)	149 (12.9%)	80 (6.9%)	1157
▪ Rural	347 (77.6%)	53 (11.9%)	47 (10.5%)	447

* Totals do not add up to total number of medical assistants, due to missing records.

When asked to indicate how much several factors motivated respondents to participate in immunization training, more than 84% of medical assistants in either urban/suburban locations or in rural locations were greatly motivated by all the factors. The leading factor that greatly motivated most respondents was “learning new or updated information” (95.3% for medical assistants in urban/suburban locations and 95.9% for medical assistants in rural locations) (Table 46).

When asked to indicate how much several factors were a barrier to participating in immunization training, 46.4% of medical assistants working in urban/suburban locations indicated that finding time during their work schedule was a large barrier. Forty-nine point two percent (49.2%) of medical assistants working in rural locations indicated that a lack of awareness of available trainings was a large barrier.

A greater percent of medical assistants working in a rural location (41.2%) compared to medical assistants in urban/suburban locations (37.5%) indicated that training happening too far from where they work was a large barrier to participating in immunization trainings (Table 47).

Table 46: Please indicate how much each factor motivates you to participate in immunization training.

	Greatly Motivates	Neutral	Does Not Motivate	No. of Responses*
Learning new or updated information (e.g., new schedule, new recommendations)				
▪ Urban/Suburban	1137 (95.3%)	46 (3.9%)	10 (0.8%)	1193
▪ Rural	440 (95.9%)	17 (3.7%)	2 (0.4%)	459
Requirement for my current job				
▪ Urban/Suburban	1100 (93.7%)	53 (4.5%)	21 (1.8%)	1174
▪ Rural	427 (93.8%)	22 (4.8%)	6 (1.3%)	455
Recommendation from my supervisor				
▪ Urban/Suburban	982 (85.2%)	123 (10.7%)	47 (4.1%)	1152
▪ Rural	385 (85.4%)	48 (10.6%)	18 (4.0%)	451
Increase in salary potential				
▪ Urban/Suburban	1035 (89.1%)	73 (6.3%)	54 (4.6%)	1162
▪ Rural	406 (89.8%)	27 (6.0%)	19 (4.2%)	452
Earning continuing education units (CEUs)				
▪ Urban/Suburban	1048 (89.0%)	58 (4.9%)	72 (6.1%)	1178
▪ Rural	399 (87.7%)	34 (7.5%)	22 (4.8%)	455
Competitiveness in the job market				
▪ Urban/Suburban	998 (86.2%)	94 (8.1%)	66 (5.7%)	1158
▪ Rural	382 (84.7%)	38 (8.4%)	31 (6.9%)	451

* Totals do not add up to total number of medical assistants, due to missing records.

Table 47: Please indicate how much each factor is a barrier to you participating in immunization training.

	No Barrier	Neutral	Large Barrier	No. of Responses*
Finding time during work schedule				
▪ Urban/Suburban	415 (35.1%)	219 (18.5%)	548 (46.4%)	1182
▪ Rural	152 (33.3%)	88 (19.3%)	217 (47.5%)	457
Competing family commitments				
▪ Urban/Suburban	511 (44.3%)	262 (22.7%)	380 (33.0%)	1153
▪ Rural	213 (47.0%)	113 (24.9%)	127 (28.0%)	453
Training happens too far from where I work				
▪ Urban/Suburban	485 (42.1%)	235 (20.4%)	432 (37.5%)	1152
▪ Rural	164 (36.3%)	102 (22.6%)	186 (41.2%)	452
Cost of training				
▪ Urban/Suburban	417 (36.3%)	223 (19.4%)	509 (44.3%)	1149
▪ Rural	164 (36.5%)	96 (21.4%)	189 (42.1%)	449
Management's lack of support of training				
▪ Urban/Suburban	635 (55.4%)	198 (17.3%)	314 (27.4%)	1147
▪ Rural	236 (52.8%)	101 (22.6%)	110 (24.6%)	447
Identifying trainings appropriate for my needs				
▪ Urban/Suburban	629 (54.7%)	293 (25.5%)	227 (19.8%)	1149
▪ Rural	232 (51.7%)	134 (29.8%)	83 (18.5%)	449
Not aware of available trainings				
▪ Urban/Suburban	433 (37.4%)	225 (19.4%)	499 (43.1%)	1157
▪ Rural	140 (31.6%)	85 (19.2%)	218 (49.2%)	443

* Totals do not add up to total number of medical assistants, due to missing records.

Summary and Recommendations

NOTE: The following acronyms are used throughout this document: AAMA (American Association of Medical Assistants), CDC (Centers for Disease Control and Prevention), CMA (Certified Medical Assistant), RMA (Registered Medical Assistant), on-the-job trained (OJT), Vaccines for Children (VFC) program and Vaccine Information Statements (VISs). It should also be noted that the term “MA Program” refers to the variety of preparatory medical assisting education programs, ranging from non-accredited six-month programs to accredited associate degrees in medical assisting.

Summary

This web-based training needs assessment describes the population of medical assistant (MA) respondents, the immunization services tasks they most commonly perform, their experiences with immunization-related training, their future training preferences and possible methods/modes for communicating with MAs.

The final group of respondents (N=1977) was composed of MAs who worked in the area of immunization services and worked in 49 states, the District of Columbia and Guam. Professional preparation to become an MA was varied and ranged from OJT, graduate from an MA program, graduate from an MA program and an RMA, graduate from an MA program and a CMA (the largest group of respondents), to some combination of these. Respondents had worked as an MA for an average of nine years.

While MAs worked in a variety of settings, including 11% who worked in Community Health Centers (CHCs), the majority (70.6%) worked in physicians’ offices. Most of those who worked in physicians’ offices worked in family practice, followed by pediatrics and internal medicine. A majority of the healthcare offices participated in the VFC program. Seventy-two percent of respondents indicated that they worked in either an urban or suburban location. The average age of respondents was 38 years and 97% of respondents were female.

Information about the survey population can also be gleaned from reading the “Other” response comments. Many of the themes focused specifically on training. For example, MAs expressed concern for their fellow co-workers and employers not fully understanding the importance of MAs remaining up-to-date on frequently changing immunization recommendations. Many expressed concern for a lack of awareness regarding the types of trainings and different training resources available (e.g., VFC and state immunization programs). Although MAs seem to rely on their employer/supervisor to inform them about available training and encouraged the use of their employer/supervisor as a means of promoting training opportunities, they also expressed concern for the lack of time, if any, their employer/supervisor allowed for training. In addition, many MAs expressed a desire for greater recognition of their role within their work setting and for increased opportunities for training.

Other themes also presented themselves but did not relate directly to training. A number of comments suggested some confusion between fundamental immunization terms, such as injectables and vaccines (e.g. Rhogam, allergy shots, PPD are not vaccines). Some respondents seemed to have had difficulty differentiating between the two and considered anything that was an injection, an immunization. A final observation of these “Other” responses is the frequency of spelling and grammatical errors.

Most respondents indicated that they screened patients, educated patients/parents, administered vaccines, recorded/documented patient records and store/handled vaccines often; while 54% indicated that they never assessed immunization rates and 41% indicated that they never coded or billed for immunization services.

The primary reasons respondents participated in immunization training were when a doctor or other medical staff offered training in their office, when there was a change in immunization recommendations or when a new vaccine was released. More than 51% of respondents indicated that they received their immunization training in the past as in-services in their office. Similarly, most respondents indicated that they received their training and their immunization updates from in-house staff (nurse, physician or office manager) and vaccine manufacturers or representatives. The fewest respondents indicated having received immunization training in the past as satellite broadcasts, webcasts, net-conferences, audio recordings or self-study interactive multimedia.

Respondents were also asked to identify their preferences for topics, delivery methods and educational strategies for future immunization-related trainings. The topics identified as being important to the most respondents were: “adverse reactions or ‘side effects’”; “educating patients/parents (i.e., health communication)”; “administering vaccines”; “risk communication (e.g., discussion of vaccine safety)”; “record keeping and/or documentation in patient record”; “immunization schedules”; “storage and/or handling of vaccines”; “clinical information about disease”; “VISs”; and “screening patients.” The training topics identified as not important by the most respondents were: “assessing immunization rates” and “coding and/or billing of immunization services.”

The MAs’ most commonly preferred delivery method for future immunization trainings was an in-service activity in their office. The delivery methods that were not preferred by the most respondents were audio recordings (CD, MP3 or cassettes) and satellite broadcast, webcast, or net-conference with no interaction with the instructor. Nearly eighty percent of respondents preferred that future trainings include “problem-based learning” educational strategies (74.4% preferred “case studies”). Only 42.0% preferred “role-plays” as an educational strategy.

As a group, the top two factors that motivated MAs to participate in immunization trainings were “learning new or updated information (e.g., new schedule, new recommendations)” and a “requirement for my current job.” The top three barriers for participating in immunization trainings were “finding time during work schedule,” “not aware of available trainings,” and the “cost of training.”

The largest percent of respondents indicated that they learned about the survey from an “other” source (often times a supervisor) followed by many who learned about the survey because they obtained a “postcard from the research team”. Although nearly forty percent of respondents indicated that “email communications” was the best way to inform them of new immunization trainings in the future, 30.1% indicated that a “direct mailing through the U.S. postal system” is the best way. Those who indicated that an “announcement on a website” was the best way to inform them of new immunization trainings identified “state immunization registry website” and the “CDC website” as the best locations for such announcements.

The data were analyzed further by comparing responses to key questions by the type of education, the type of healthcare setting and, the geographical location of respondents. Many of the findings presented in this additional analysis were similar to those found in the general data analysis, with a few exceptions.

Although a rather small response (5.5%) of OJT medical assistants, more often than the other groups, indicated that they had “never participated in any training related to immunizations.” Ninety-three point six percent (93.6%) of CMAs, 90.4% of RMAs and 81.9% of MA graduates were greatly motivated to participate in immunization training if continuing education credit (CEUs) were offered, whereas, only 74.2% of OJTs were greatly motivated by this factor.

When asked to indicate which factors were barriers to participating in immunization training, the leading barrier for OJTs and CMAs was finding time during their work schedule. The leading barrier for MA graduates was not being aware of available trainings and for RMAs was the costs of the training. The largest group of MAs working in physicians’ offices indicated that finding time during their work schedule was a large barrier, while the largest group of MAs working in CHCs reported that a lack of awareness of available trainings was a large barrier. The leading barrier for MAs working in urban/suburban locations was finding time during their work schedule and for MAs working in rural locations it was a lack of awareness of available trainings. Compared to MAs working in urban/suburban locations, those working in rural locations were more likely to indicate that training happening too far from where they work was a larger barrier to participating in immunization trainings.

It should be noted that there are several limitations to the data presented. First, there appears to be some misinterpretation of what hands-on trainings are. The survey asked respondents about their preferences for training delivery methods and educational strategies. Although definitions of educational strategies were included in the survey instructions to decrease ambiguity, the definitions did not clearly differentiate which strategies or delivery methods might include hands-on training. So, although the top delivery method preferred by all respondents was “in-service” activities and the top educational strategy was “problem-based learning,” both of which could include hands-on-training, many respondents indicated in the “Other” responses their preference for hands-on training.

Second, although it was clear that MAs often receive information about available trainings from their supervisors, it is unclear whether their supervisor is a nurse, a physician, an office manager or another clinical or administrative staff in their office.

It should also be noted that the type of training delivery methods and education strategies that respondents prefer are the same methods and strategies that they are familiar with from past trainings.

Recommendations

The recommendations presented here are divided into the following categories: advocacy, communication, and training.

Advocacy:

- **Advocate for professional preparatory standards.** MAs, regardless of their preparatory training, are performing many immunization-related tasks.
- **Partner with medical and nursing associations to facilitate communications with MAs, to advocate the ongoing need for immunization training and to encourage valuable support and recognition of MAs.** Physicians' offices are a common work setting for MAs. MAs identified their supervisors as "gatekeepers" of information.
- **Advocate for a national mechanism (e.g., registry) to collect contact information for MAs regardless of educational preparation or membership in a professional association.** MAs work in many settings, have differing educational backgrounds and belong to a myriad of professional organization. Without a common way to reach them, communication is difficult.
- **Advocate for uniform regulation of the medical assistant profession.** A number of "Other" responses indicate that MAs were unclear about their scope of practice or that it changed when they changed jobs.

Communication:

- **Announce training availability and updated information via email, direct mail and key websites (e.g., immunization registry sites, CDC).** These dissemination methods are identified by MAs as preferred mechanisms for communication.
- **Communicate training opportunities to worksite supervisors.** Supervisors are considered the "gatekeepers" of information for MAs and oftentimes relay training opportunities to MAs.
- **Communicate to worksite supervisors the importance of ongoing updates and immunization training for MAs.** Immunization recommendations and vaccine schedules change frequently, yet many MAs reported receiving no training since their original hire date. In addition, "Other" responses indicate the lack of recognition and support some MAs experience.

Training:

- **Focus immunization-related trainings on: “adverse reactions or ‘side effects’”; “educating patients/parents (i.e., health communication)”; “administering vaccines”; “risk communication (e.g., discussion of vaccine safety)”; “record keeping and/or documentation in patient record”; “immunization schedules”; “storage and/or handling of vaccines”; “clinical information about disease”; “VISs”; and, “screening patients.”** These topics were identified by MAs as important for future trainings. Training topics that were marked not important by the most respondents were: “assessing immunization rates” and “coding and/or billing of immunization services.”
- **Develop case studies and problem-based learning activities.** MAs identified case studies and problem-based learning as preferred educational strategies.
- **Develop short, modular training units that incorporate case studies and problem-based learning.** MAs indicate that “finding time during work schedule” is a barrier to training. MAs also perform a variety of immunization-related tasks. Short training modules would allow MAs to select the content areas appropriate to their needs and may allow for participation during a busy work day.
- **Deliver trainings for MAs as in-services by either in-house staff (e.g., nurse, medical staff) or by other lecturers (e.g., pharmaceutical representatives, nurse from technical college, public health staff).** MAs indicated that their preferred delivery method for future immunization trainings was as an in-service activity in their office.
- **Utilize a train-the-trainer methodology that incorporates these modular training units, to support worksite supervisors as they train MAs.** MAs prefer in-service trainings and updates provided by office staff or other lecturers. Barriers identified by MAs for participating in training include: difficulty finding time for training, cost of training and distance from training.
- **Partner with VFC program to facilitate the development and dissemination of training opportunities for MAs in VFC settings.** More than 60% of MAs indicate that their healthcare setting is enrolled as a VFC program.
- **Offer CEUs as an incentive for MAs, particularly CMAs and RMAs, to attend trainings.** More than 90% of CMAs and RMAs were greatly motivated to participate in immunization training if CEUs were offered.
- **Explore strategies to offer no-cost or low-cost training to MAs by collaborating with other agencies (e.g., state immunization programs, professional organizations, pharmaceutical companies).** “Cost of training” was identified as a barrier to MAs participating in training.
- **Market available continuing education offerings to MAs and their supervisors and clarify that many trainings offer CEU credit that CMAs and RMAs may be able to use.** More than 35% of all respondents indicated that not being aware of available trainings was a large barrier to participating in immunization trainings.

- **Develop immunization-related training materials at an instructional level appropriate for the diversely-trained population of MAs.** There is no standard level of professional preparation to become an MA. In addition, information gleaned from reading the “Other” responses suggests some misunderstanding of fundamental immunization-related terms.

Appendix:

Complete List of “Other” Responses

The information below is a complete list of all “Other” responses received on the *Assessment of Immunization Training Needs for Medical Assistants* survey. “Other” responses included “as is” and have not been edited.

Questions about Respondents

What type of education have you received to become a medical assistant?

- 2 year associates degree in medical assisting
- A.S.Degree in Clinical and Administrative assisting
- AAS in medical assisting
- AAS in Medical Assisting and CMA(AAMA)
- Actually I graduated as an LPN.
- Also a CMA
- also have AD in Science
- Also i am currently going to school to become an RN.
- also took and passed rma test
- also took test to become nationally certified
- Although all of the above applies to me!
- and i am also a RMA
- Assoc. Science Degree, Surgical Technician, clinical experience/training
- Associate Degree Medical Assisting
- Associate in Science in Medical Assisting Degree (2 year degree)
- Associates degree in medical assisting
- Associates Degree in Medical Assisting
- associates program
- Attend several educational courses
- but I am a CMA
- Certification in medical insurance coding
- Collage classes, CNA, and working in a hospital
- doctor of medecin
- emt paramedic
- EMT school
- foreing physician
- Graduated form a medical assistant program and am a NR-CMA(Nationally Registered Certified Medical Assistant
- Graduated from a 2 year program and received an Associate Degree in Applied Sciences from a Community College.
- graduated from a allied health science program with an associates degree in medical assisting
- graduated from a medical assistant program and am a NCMA.
- graduated from nursing school
- Had been certified but it has expired.
- have an Associates of Applied Science in Medical Assisting and Nationally Certified MA

- have an LPN license and work in dr.'s office as an MA
- Have my Associates Degree in Medical Assisting
- HAVE WORKED FOR MANY YEARS AND TOOK RMA EXAM IN AUG 2007
- Hospital Corps School, Great Lakes Naval Hospital, Illinois
- Hospitl corpsman in the Navy for 16 years
- I also am a surgical tech so much training was accomplished thru tech schooling and experience
- I also have a BS in Community Health Education
- I also have my associate's degree
- I also received an LPN from a local community college
- I also took correspondence courses and received a Certification in Medical Assisting.
- I am a certified EMT, and recieved the rest of my MA training on the job
- I am a certified nursing assistant and currently enrolled in a RN program.
- I am a CMA (AAMA) and a RMA, but have not had formal education in a medical assistant program
- I am a physician from another country(Anaesthesiology)
- I am a Registered Nurse
- I am actually a LPN.
- I am also a LPN
- I am also a RMA
- i am also a RMA
- I am also an RMA
- I am an EMT
- I am an LPN working as a Triage Nurse and filling in as an MA as needed
- I am an LVN Rec'd training at College
- i am certifed and registered medical asst in state of mass
- I am not happy about the way I am being, or the lack of being trained
- I AM QUALIFIED NAVAL HOSPITAL CORPSMAN AND AM CURRENTLY WORKING IN USNH GUAM IN THE EMERGENCY DEPARTMENT
- I am registered and certified
- I graduated form a medical Assistant program and my certification for (CMA) lapsed - I need to re-cert
- I graduated from a medical assistant program and am a Nationally Certified Medical Assistant.
- I graduated from a medical assistant program and am a NRCMA Nationally registered and certified medical assistant
- I graduated from a medical assistant program and am a NR-CMA(National registered and certified and CPT(certified phlebotomy tech)
- I graduated from a medical assistant program and have my bachor degree in biology
- I graduated from a medical assistant program and have taken the CMA exam, but do not know the results yet.
- I graduated from a medical assistant program and I am currently waitig for the results of my certificaton test.
- i graduated from a medical assistant program and just took my test for certification
- I graduated from a medical assistant program, received training on the job and sat for the CMA exam.
- I graduated from biol. & chem.

- I graduated from LPN program
- I graduated from Nursing school then became a CRMA
- I GRADUATED WITH AN ASSOCIATES OF APPLIED SCIENCE DEGREE
- I graduated with LPN license
- i grandfathered into the CMA program and was able to take the exam without taking the classes.
- I had 21 years experience then was grandfathered over by taking the cma test in harrisburger
- I have a BS in Microbiology, many years of on the job training in pediatrics and after passing the CMA exam was grandfathered in as a CMA.
- i have a cna
- I have an associates degree and CMA I think that should be mandatory
- I have an Associates Degree in Applied Science from Northwestern Michigan College and am a CMA/AAMA
- I have graduated from a medical assistant program and my credentials from the National Association for Health Professionals testing has made my registry both a registered and certified Medical Assistant (NRCMA).
- i have learned alot!! on the job training
- I have my Associate of Science Degree in M.A. but have to retake my CMA
- I have my Associates degree in Certified Medical Assisting
- I have my associates degree in medical assisting from and accredited CMA program (Clark College Vancouver, WA)
- I obtained an Associate in Applied Science degree (2yr program) and became and maintain my CMA through the AAMA.
- I received my training as a medical assistant on the job and am a CMA
- I received on the job training and have taken the CMA exam and am a CMA
- I recieved my training in the Military
- I took my certification exam but haven't got my scores sent to me yet.
- I trained as an LPN but immediately began working as a medical assistant, taking courses to fill my occupational training needs. Learned lots on the job also. Became a CMA 20 years ago before we were required to graduate from an accredited program.
- I was a Corpsman in the Navy.
- i was a nurse and doctor in a foreing country-cuba
- I was certified, but did not keep up my accreditation
- I was in the military as a corpsman
- lam a nrcma
- lam foreing medical doctor and in US NOW I work in medical office like medical assitance , because i need pass the board test for doctors
- i'm a BSN
- Im a LPN workin as a medical assistant
- I'm also certified
- I'm an LVN
- L.V.N.
- Licensed Practical Nurse 11
- LPN
- LPN
- LPN since 1970/ family practice since 1988

- LVN PROGRAM
- MA then LPN
- medical school university
- Medical Assistant program with Associates in Science and am a CMA
- MEDICAL DOCTOR FOREIGN
- Military training, with associates degree from community college of the Air Force, and I am credentialed by CMA, RMA and NRMA
- NA training with 30 years of experience, mainly in internal medicine
- nationally certified medical assistant on the job training and passed certification test. Do CEU's yearly
- NATIONALLY REGISTERED
- Navy Corpsman then CMA(AAMA) and CMA Educator.
- Navy Corpsman, Pediatric MA and now Family Practice MA
- NCRMA NATIONAL CERTIFIED REGISTERED MEDICAL ASSISTANT
- on the job and I am a RMA
- on the job x 25 years and challenged the certification exam - passed
- Originally a Dental Assistant I was transferred to this position (inventory control/vaccine auditor)when dental clinic was closed.
- passing certification exam based on education and work experience
- Questions: Why is there a difference between RMA and NRCMA?
- Received training on the job and passed CMA certification.
- retired LPN
- rn
- RN
- RN
- RN
- rn training
- similar work in ER setting
- still attending school
- I think any CMA should be giving immunizations or the person has been well trained.
- then took the CMA exam and passed
- took certification exam in 1997
- Trained as a surgical technician, worked in medical field for 20 some years in various positions
- Trained by the US Navy
- trained in the army and received RMA by ojt.
- United States Military Medic School
- US Navy Hospital Corpsman School
- US Navy training.
- was certified but haven't kept up with it
- was originally trained on the job, then went to CMA school.
- Went to a BSN program didn't finish
- will be taking the AAMA exam this year
- WORKED IN FEDERAL PROGRAMS ABOUT IMMUNIZATION ISSUES
- Working on being re-certified.

In what type of healthcare setting do you work?

- 5 physician walk in clinic dealing mostly with Humana insurance
- A Technical/ Trade School. Tidewater Technical Institute, Virginia Beach, Virginia
- aLSO AM A Certified Pharmacy Technician
- Also did private practice work.
- Also missionary work overseas
- also worked a a phlebotomist initially as no one was sure what duties a CMA could perform
- Am currently an educator and program director. Have worked in many specialty practices before becoming an educator
- Ambulatory care center Part time
- And a Chiropractor's office
- Baylor College of Medicine Vaccine Research Center
- CLINIC
- clinic
- Clinic with Immediate Care
- College health
- college health
- college health center
- College medical assistant program
- Community College Medical Assistant Instructor
- county health School based .
- currently instructor of medical assistants at community college
- Department of substance abuse for a private hospital
- education
- Educator for a medical assistant program
- ESL program at a university
- Family Medical Center
- Family Medicine Residency program through hospital
- Family medicine residency program/clinic
- Family Planning Clinic
- Family Practice Clinic
- Family Practice Residency Program
- free clinic
- govt hospital
- harvard vangaurd medical associates atrius health
- Have worked at Health Dept & local Methadone Clinic too
- HMO General and Vascular Surgery department. I also do DXAs in another facility as I am also X-ray Certified and a Ceritifed Densitometry Technologist.
- I also work two days at a convenient car center set up to be afordable health care.
- I am a medical assisting educator and we need to instruct our students to be able to do all the tasks that you have listed.
- I am also an LPN, further studying for my RN, I work per diem in doctors ofc, and part time as a med nurse in a nursing home
- I have worked also in Hospital settings
- I think it would be nice if the AAMA would provide more training programs for the CMA.

- I work 12 hours a week at an urgent care and 40+ hours teaching medical assisting at a non profit center....
- I work at a university health center for college students that range from 17 to 99
- i work for nurse practitioners in a family practice also i do in home health care.
- I work in a doctor's office but I am employed by a hospital
- Indian health services with all levels of care incl. hospital with inpatient/outpatient facilities.
- I've also worked in physicians office as well
- jail
- Johns Hopkins Outpatient - Orthopedics
- Large Medical clinic
- M.a. Instructor in a Community College
- medical Research
- Mental Health chronic out patient care and Acute out patient urgent care.
- mentoring
- Military treatment facility
- multi practice of specialists
- MULTIPLE PHYSICIANS OFFICE PART OF A HOSPITAL SETTING.
- Multispecialty Medical Clinic
- naval hospital - deployment health center
- non profit organization
- occupation health facility
- Occupational Health
- Occupational Health Clinic
- Occupational Health Clinic
- Occupational Health inside a hospital
- Pediatric
- pediatric clinic with multiple doc
- Pediatric office now, previously family practice and at one time dermatology
- pediatrics
- Pediatrics
- Planned Parenthood
- Primry care/Internal Medicine
- Providence Health System - Family Practice Clinic
- public school
- Rural Health Care Clinic
- Rural Health Center. I do all of the immunizations for the facility. During August prior to school starting I do an average of 350 immunizations. They are then entered into Child Profile, which is the state system. I am also the Clinic Manager at this site.
- Rural Health Clinic also certified as a national health core facility
- RURL HEALTH CLINIC
- SABAN FREE CLINIC
- school
- School base center
- school district
- school nurses office
- Student Health and Wellness at local University

- Student Health Center at a major university
- Student Health Center at a University
- Student Health Service to a state university which is funded by student's segregated fees
- studied on my own to become certified.
- Technical College
- THAT IS A RURAL HEALTH CLINIC
- Travel immunization clinic
- U. S. Department of Veteran Affairs
- University
- University
- University Health Center
- University Health Center
- Urgent care
- Urgent Care
- URGENT CARE
- urgent care
- urgent care
- urgent care
- Urgent Care
- URgent Care and Occupational Health Facility
- Urgent Care Center
- urgent care center
- Urgent care part time, and full time in orthopaedics
- URGENT CARE SETTING
- Urgent Cares
- WE ARE ALSO A TESTING FACIULTY

If you work in a physician's office, what type of office is it?

- 1 peds, 4 family, 1 internal med
- ALL
- All of the above
- all of the above
- all of the above
- All of the above, I'm a float
- all of the above, there is 4 providers
- allergies and asthma
- Allergy and Immunology
- Allergy and Immunology
- allergy specialist
- also specialize in pediatric allergies
- also urgent care dept
- Asthma and Allergy
- CARDIOLOGY
- cardiovascular--allergy
- clinic where there are many department types.
- combination of internal med, gastroenterology, family practice

- Dermatology
- Dermatology
- DO
- endocrinology
- Endocrinology
- Endocrinology
- ENT/ Allergy
- Family practice and it is also an Urgent Care facility as well.
- Family and OB
- family and pediatrics
- Family and pediatrics
- Family practice and also internal medicine
- Family practice and I also work w/ an ob/gyn Nurse Practitioner
- Family practice and Internal Medicine
- family practice and internal medicine
- Family practice and labatory
- Family Practice and occ med
- Family practice and Pediatrics
- Family practice and pediatrics
- family practice and pediatrics
- Family Practice and Specialty
- Family practice but I work with the OB patients the most.
- Family practice with the speciality of osteopathic medicine
- Family Practice, Internal medicine
- Fill-in for an urgent care and also perform cardiac tradmill stress test for an Internal Med. doctor.
- FLOAT BETWEEN CLINICS - FAMILY PRACTICE, PEDIACTRICS AND INTERNAL MEDICINE
- float between internal medicine, pediatrics and ob/gyn
- Float pool-all of the above and then some
- FP, IM, Podiatry, Peds
- Gastroeneterolgy
- GASTROENTEROLOGY
- General Surgery
- general surgery
- geriatics
- geriatics
- Giaratics
- Gynecology/Oncology
- health center FP, PD, OB/GYN
- i also float over to peds and family when needed
- I work both adults & pediatrics at the office where i work at.
- I work full time in a cardiologist office and part time in a pediatric office.
- i work in 5 different offices 2 family practice, ob/gyn, internal medicine, pediatrics
- I work in a large clinic as a float so I work in all departments
- I WORK IN PEDS AND OB
- I worked in Family Practice for 17 years, before moving to OB/GYN

- immediate care clinic
- Infectious Diseases/ Rheumatology and Endocrinology/ Travel Health Clinic
- Integrative Medicine
- internal med/peds
- Internal Medicine, Family Practice, Pediatrics
- Internal Medicine & geriatrics
- Internal Medicine and Pediatrics
- Internal Medicine and Pediatrics
- Internal medicine and pediatrics
- Internal medicine and pediatrics together
- Internal medicine with a Family Practice doctor
- Internal medicine, Peds and General
- It has Internal medicine and Family practice doctors and PA and FNP
- Large Clinic with a Pediatrician , Family Practice ,PA and FNP
- Large, multi-practice medical facility and I.S. Department
- Military Base for active duty
- Most of my working years have been in Internal Medicine though. It just so happens I now work in Family Medicine
- multi practice
- multi specialty practice
- multi-practice
- Multi-specialty practice: Pediatrics, Family Practice, Internal Medicine, Ob/Gyne
- My employer also specializes in Cardiology
- My practice is Family practice and Internal Medicine
- NEPHROLOGIST OFFICE
- Neurology
- OBGYN and childrens center
- OBGYN and family practice
- OBGYN and some family practice
- occupational
- Occupational Health
- occupational health
- Occupational Health and Infectious Disease
- Occupational Health/Student Health
- Occupational Medicine
- occupational medicine
- occupational medicine
- occupational rehabilitaion
- office varies between family practice, internal medicine and pediatrics. At times may include neurology and other specialties.
- oncology and hematology
- ophthalmology
- Orthopedic Clinic
- ORTHOPEDICS
- orthopedics
- our office has Family Practice, Internal Medicine, and Pediatrics

- pediatric and internal medicine
- pediatrics and family practice
- pediatrics and family practice
- Pediatrics and Internal Medicine
- Pediatrics and Internal medicine.
- Pediatrics and neurology
- Pediatrics and they are also Internal med
- Pediatrics and we also have two family physicians
- Pediatrics, family and internal med.
- Plastic surgery
- PULMONARY
- Pulmonary
- pulmonary and sleep medicine
- PULMONOLOGY
- pulmonology
- Pulmonology
- Rheumatology
- Rheumatology
- Rheumatology but Internal medicine for 14 years
- specifically endocrinology
- Surgery and general practice partnership
- The clinic is all of the above
- Two doctor practice, we also have internal medicine
- Urgent care
- urgent care
- Urgent Care
- uro/gyn
- walk in, urgent care
- We have all the above in our office.

What type of immunizations are provided in your healthcare setting?

- adults only ppd and td
- ALL MEDICAL READINESS IMMUNIZATIONS NEEDED FOR MILITARY PERSONEL AND FOR PERSONEL DEPLOYING WORLDWIDE
- all vaccines
- allergy and immunotherapy treatment for environmental and insects
- allergy serum, gardasil, rhogam
- Antibiotic (Rocephin)
- As an instructor, I need to teach them all.
- co worker immunizations, PPD & flu shots
- College age only
- contraceptive
- Depo...
- flu
- flu shots and pneumonia vaccines

- flu shots, allergy SQ shots, steroid IM shots
- flu vaccine, hepatitis vaccine.
- flu-shots
- Gardasil
- gardasil
- Gardasil and Rhogam (RhoD)
- gardasil only and rarely ppd
- Gardasil vaccine
- gardasil, flu
- Gardasil
- Georgia Board of Regents Immunization Requirements for entry to USG colleges/universities
- green card immies
- growth hormone,
- guardisil
- H5,H9 H7, Malaria, Anthrax, Tularemia-All Vaccine Studies
- hep b, TB. flu
- HPV
- HPV
- hpv in ob/gyn clinic
- HPV vaccines only
- HPV. flu,
- immunizations required by the university
- influenza only
- Instruct all types of immunizations
- low blood count, blood clots
- menactra, hpv
- Mock only
- OB/GYN
- ONLY SOME OF THE TRAVEL MEDICATIONS LIKE HEP A AND RABIES
- PPD, Hep vaccines
- PPD, Tetanus
- Procrit Shots
- rabies
- Rabies
- refugee
- Rhogam
- RHOGAM, GARDISIL, DEPO PROVERA, LOVENOX, LUPRON, A COUPLE OTHERS EVERY NOW AND THEN.
- School physicals
- special vaccinations like rabies, allergy shots
- specialty injections are also given at the clinic
- state and private
- Students are trained for all immunizations
- Students practice with Sodium Chloride.
- synagis
- SYNAGISE SHOT

- Tetanus, HPV Gardasil
- tetnus for injuries
- vaccines brought in by patient
- Vaccines related to Occupational Fields, Re: Rabies, hepatitis
- Vaccines required for employment, adult education, etc.
- we do not provide immunizations
- We give some travel vaccinations but some vaccines are referred to Travel Medicine Clinic, ie yellow fever, thyphoid
- We no longer provide immunizations through or at the Health Department but we do contract out to mobile immunization sites to still catch those individuals needing imms that might not have access to medical insurance or medical provider.
- Zosta Vax, Vitamin B12 injections, all other injections for medication required or ordered by the provider then ordered by the on site pharmacy and given by me at the Clinic as ordered.

Immunization Duties

What additional immunization tasks do you perform?

- acquiring immunization records from state registry prior to patient's visit to determine pt's immunization status.
- all
- All duties in our clinic regarding immunizations
- All pt's chart are reviewed before they are seen to update their immuniations
- All record keepin gis done at the time of the shot. So that is a vage question to ask.
- Allergy injection
- allergy shots
- Also do adult immunizations plus foreign travel (typhoid, yellow fever, malaria prophylaxis), TB Skin
- At my office, the only vaccines we administer are Tetanus Toxioid, Pneumococcal, Hep B (adult) and Influenza. We do not administer Peds vaccines.
- audit for eligibilty, State Supplied vs Client Purchase, on every vaccine given in clinic.
- Baby shots
- cdc handout and updates
- check the temperature of the vaccine and ensure clarity within the vaccine vial prior to measuring out the vaccine
- check with the CDC on new vaccines,gather information as well as distribute any problems with new vaccines
- checking for outdated vaccines, calling insurance companies for special ordering or getting PA for specialty medication given as vaccine
- Comment--most of our work is with allergy immunotherapy vacines
- COMPLETING ADVERSE REACTION FORMS, CALL DRUG/IMMUN COMPANIES WITH QUESTIONS OR FOR ADVICE.
- creat packets to educate pt about shouts and effects
- Directing. no access to administer
- draw blood, spin blood, collect specimens, pregnancy test, ua test, room in pt's, etc.

- drawing up shots for patients.
- drawing up the vaccines
- EKG's, Venipuncture, Centrifuge
- Entering historical immunizations into Electronic Health Record.
- Entering Immunizations into Medcat/Ichart, checking and verifying that specific vaccines has dates, and are completed, etc. in order to clear I Holds for current students and incoming students. Also waivers for students who are exempt for vaccinations.
- follow up phone calls
- forecasting
- Give handouts early so parents have time to read them and be ready with questions on shot day for the Doctor prior to immunizations being given.
- I also do inventory of all imm in stock once a month, and keep track of all the imm given in the office in a book in the office.
- I also keep track of the state vaccine supply, keeping track of what our clinic goes through and ordering of those supplies.
- I ALSO PERFORM LAB TEST LIKE URINE HCG, UA, CBC, BMP, AMYLASE, GLUCOSE, STREP AND MONO.
- I also work with treatment of Crohn's Disease and Hepatitis C patient. We also have to be able to give them current information on the Disease and well as the treatment and the duration of treatment as well the outcome of the treatment.
- I am a 35 year veteran of the MA field. I am currently working as an Instructor at a local Trade School. And yes, I teach the course, Principles of Medications, which includes Parenteral Medicine and Immunizations/Vaccines. I instruct the students on proper techniques of administration of ID, IM and SC.
- I am a medical assistant instructor at a Community College, so currently I train and instruct students on how to draw up, administer, properly document and record immunizations in patient charts, care and educate the patients, and storage of immunizations. Occasionally I will work in a clinical setting, covering for MA's on vacation, or job shadowing MA's in order to keep current with medical practices and changes in healthcare or clinical practice.
- I am in charge of the VFC imm program in our office. I order and keep track of stock. I train any new MA that starts in the office. I have been doing this for 13 years.
- I am involved in a training class for all medical assistants that help the ma to get a better understanding of the diseases and the effects of what can happen if a child goes unvaccinated. It is also a class that will help the ma to understand the importance of the scheduling.
- I AM RESPONSIBLE FOR KEEPING OUR OFFICE IN STOCK WITH THE MOST UP TO DATE PUBLICATION OF VACCINE INFORMATION STATEMENTS PROVIDED BY THE CDC
- I am responsible for monitoring labs required to evaluate patient's who are getting long-term medication injections, such as Methotrexate, Amiodarone, Imuran, and Remicade
- I am responsible for stocking all of our immunizations and the necessary supplies.
- I am the main person for ordering/vaccine management and MCIR input (State program) in our office of 10 providers. We maintain 2 fullsize vaccine refrigerators. We offer full peds/adolescent vaccination and several adult vaccines, both public & private.
- I am the main source for clinic and vfc given immunizations. I am also involved in our travel immunization programs. Our office received an award of excellence for our immunization program from the state of Alabama. I am responsible for ordering, administration, and record keeping.

- I answered these questions based on the clinic I work in which is a Community Health Clinic. We do several immunizations daily.
- I attend the any meeting and/or conferances regarding vaccines to keep me informed about new vaccines and/or products
- I DO ALL OF THE VACCINE INVENTORY
- I do PPD plants.
- I do vaccine ordering
- I don't give alot of pediatric immunizations I just mainly order the state supplied immunizations and keep staff updated on any changes
- I feel, at least in the clinic I work in, that training on immunizations is low/very low. I feel that we are in need of a training session but have been unaware of how to go about it. I am the Medical Assistant in our office that is very interested in vaccines/immunizations and up the ped/adol/adult rates. Here recently I have noticed to many questions arising and to much hurrying going on that certain aspects are not being realized
- I manage all vaccine orders and inventory for this office.
- I MOSTLY TAKE CARE OF LOT NUMBER RECALL EVERY MONTH. I ALSO MAKE SURE THAT ALL VACCINES STAY IN ORDER
- I oversee the VFC program
- I prepare needle and medicine for the NP on duty. Get Pt ready, alchol swab, bandaide, gloves, etc.
- I run a Travel Medicine Clinic
- I teach students about how to properly perform all the above tasks using mock patients, mock charting, mock records, etc.
- I think you covered most or/all of it.
- I work as a clinical services manager, so I oversee everything to do with immunizations. I used to work on the floor and administer them, I now have more to do with the administrative duties.
- I work at Baylor School of Medicine in the Vaccine Center working with different vaccine studies.
- I work for an internist and we deal with patients from middle age to elderly. Influenza and pneumococal are what we give most for vaccinations. We do give tetanus and administer ppd. Our doctors wife does the ordering in this office. I have ordered in the past at another office.
- I work in dr's office & do Hep. B & Hep. A & B vaccines for employees only
- I work in internal medicina.
- I work part time in the school health office as a Health Care Assistant for a Public School District. I record all information of student immunization series, compliance and contact parents if further immunizations are needed for compliance of Illinois School Code. All immunizations are recorded in a data base for physicals and immunization of each individual child
- I'm also a medical assisting instructor so I teach everything from antibody/antigen response to the effect and I also teach from the immunize.org website..
- inputing all vaccines in our computer services as relating to the patient
- interpretation of vaccines in spanish i perform lead test for children and prenatal i also help interpretation in PSUPP
- inventory vaccine monthly for the clinic.
- Keeping close Watch on Pt Labs If certain Lab results are to high in certain areas then the Pt can not have their shot as it will not be covered by their insurance.
- Keeping others in the clinic informed on the changes that happen with vaccines. Attend immunization confrences one to two times a year (representing the clinic that I work in).
- Keeping up with the immunizations on child profile

- log hpv vaccine given and tracking to ensure all doses are admin.
- Make sure providers receive information on immunization recalls and availability of immunizations.
- making sure there are different gauge needles in office, also maintaining an accurate supply of syringes and needles
- Medical Assistants (including certified) are prohibited from giving injections at Community Health Centers - at least in the state of Massachusetts. Licensed staff only may administer.
- meeting all vaccine reps and discussing new vaccines, current vaccines, etc
- monthly vaccine report, keep refrigerator and freezer temperature log.
- not related to immunizations
- On state immunization board
- one time a year an immunization fair participation
- Our medical records are computerized so I enter and sign the orders per the doctor giving me verbal instructions on which immunizations to administer!
- Our stated DHEC makes us keep a record log of 2 temps daily in our vaccine fridge/freezer.
- Practice is computerized all information for State registry goes directly from the computer.
- Pregnancy related, Gestation Diabetic screening.
- Qa/QC OF DATA
- Quality Assurance in random chart samples (four times per year), in regard to Immunization Status and up-to-date immunization. Follow up (appointment scheduling) is made of those patients who need updated immunizations.
- Quality control storage, refrigeration, freezer monitor.
- re-diluting allergy extract and mixing bee venoms
- Reporting inventory to health department.
- Reviewing allergies to medications
- reviewing vaccine administration records
- Rotating vaccines and checking expiration dates.
- staffing immunization clinics
- stay updated with the CDC, and immunization branch by going online or by phone to inquire on new updates or changes, for any helpful hint or question that needs to be known always improves your knowledge to benefit you and the patient. make sure you have diagrams posted so if you're not sure on something you can look at that chart.
- Teaching how to inject self with surclick and auto pen.
- the immunization that I mostly give are for adults
- The RN and LPN handle the No answers.
- Training our 1st year residents in the proper techniques etc. There are also many times where I may have to answer questions for parents whom are concerned about the IMZ and permanent side effects they may have ex MMR causing autism etc
- Training new PL1 how to administer immunizations.
- translating to Spanish speaking patients the importance of immunizations
- TVFC REPORT
- Update our EMR with current VIS sheets and assist in the VFC program and administration
- vaccinations are entered into a data base (RECIN) at the facility I work
- very small practice
- We are a OB/GYN clinic. We only administer Gardasil and Rhogam.

- we explain the most common side affect from vaccines, because most parents don't read the vaccines hand-outs once they leave the office.
- Working in a Travel Clinic- we must fill out "Yellow Cards" after administering Yellow Fever vaccines for pts. We document this along with other vaccines we administer to patients traveling to foreign countries.
- Yes, transcribing and analysing immunizations from previous records from other states and/or countries to verify validity.

Training History

When have you participated in trainings related to immunizations?

- AAMA training sessions because I am a CMA (AAMA)
- ALMOST ANNUALLY WHEN THEY ARE AVAILABLE THROUGH THE LOCAL HEALTH DEPARTMENT
- Also any changes in techniques or procedures
- also at my center where I teach. I introduce immunizations needle tips and routes
- Also some training in school
- Annual CDC lecture
- Annual Immunization conferences
- Annual immz seminar given by state and county
- Annual State Immunization Conferences
- annually when medicaid does there checks of the office and all immunizations.
- Annually, and as needed.
- Any health dept updates
- Any other training opportunities offered for CE's--attend didactic presentations for our family medicine residents.
- as needed
- As a preceptor I sometimes will train new float MA's or students to give immunizations.
- as often as our county holds immunization trainings.
- At continuing education workshops
- at my last job
- At our state and national meetings
- At professional conferences
- at workshops
- Attended a 2 day seminar on vaccine administration about 12 years ago, keep updated on changes from immunization program in the State where I live. Have also participated in teleconference.
- Attended immunization class offered by the Department of Health
- Attended Live Broadcast from CDC in 2007. I am vaccine manager at a family practice and receive correspondance from state immunization program.
- attended state immunization training once in three years
- Attended yearly Imm. update conference - but no longer since MA is not authorized to give them here. Still review updates from DPH/CDC/WHO and manufacturers of vaccines.
- attending AAMA national meetings

- attending the train the CDC and from provider in office that help train the ma's and having staff meeting , with any current information the CDC sends us.
- CDC On line courses; MMWR On line Courses
- CDC satellite training session Local training thru Minnesota Society of Medical Assistants (AAMA affiliate)
- cdc seminars
- CDC web programs
- ceu
- CEU conferences on vaccines
- CEU HOMESTUDY COURSE
- CMA taught me how to perform allergy shots SQ.
- Continuing Education sessions at the AAMA National Conference.
- continuing educational courses provided by the nat'l association of medical assistants
- Continung Eucation Seminars
- conventions where they talk about immunizations
- Dane Co has an immunization update and I attend that with up coming information from the CDC
- Dept of Hlth
- direct training from the drug rep
- DOD,Military training on line.
- During Pedia-pred
- EDUCATION IN pncc, shaking baby syndrome,nutrition
- employee orientation
- EPIVAC
- every year
- Every year our clinic does immunization training
- every year the department of health offers immunization update training.
- everything I have learned has been from fellow employees
- FLU CLINIC ONCE A YEAR
- Follow school code for individual state statues for compliance
- for all updates
- For the last 3 yrs. helped with the Professional Immunization Seminar held in Erie, PA
- forcasting in March 2008, and iris and alert JULY 2008
- general training before the administration of immunizations
- Generally only 1 or 2 CMA's in the office attend training sessions and then inform the remaining CMA's re: anything new or any changes.
- going to conferences are very helpful because it lets you know how you are doing. We do have a very good contact with the health department that is very supportive and keeps us up to date on new vaccines or changes
- going to meetings on immunizations
- grits program
- had IRIS training just recently.
- have gone to seminars hosted by DEHEC
- Health Dept. quarterly meetings
- I also teach for a communy college so I have a woman from the health department come in each semester and talk to my Clinical II class

- I am being self taught which I am not comfortable with
- I am currently signed up for one this fall
- I am involved with travel vaccines and also work closely with the different manufactures of all vaccines to stay updated.
- I AM PARTICIPATED IN ALL TRAINING TO IMMUNIZATIONS AND VACCINE .
- I am usually the one who does the training as the vaccine officer
- I attend a vaccination workshop every year plus I get periodic mailings related to vaccinations
- I attend all TVFC updates.
- I attend regional vaccination meetings yearly help by the board of health
- I attend the immunization update provided by the CDC and any other area updates,
- I attended a CDC update on immunizations approx. ten years ago.
- I attended an immunization conference 2yrs ago.
- I attended the immunization conference that was held in Portland, last year. I have also done a training, myself for my coworkers.
- I attend several training classes yearly, whether it be ASIIS or TAPI or if VFC comes to my office
- I completed a four hour training course at the Health Center.
- I did participate in the training that was offered during my medical assisting program.
- I had training in college on immunizations
- I have also attended yearly immunization updates provided by the medical foundation I work for.
- I have also viewed a video in the clinic I work
- I have attended immunization clinics.
- I have attended seminars held by ACIP & health ins. companies.
- I have been to a training for Vaccines for Children one time.
- I have gone to a class that was offered outside of the workplace.
- I have had only one training meeting on immunizations
- I have only been notified on one immunization seminar.
- I have participated in the IDPH Vaccine Univ. 2007 and am enrolled for the 2008 update/education series
- I have participated in the Immunization conference in MN
- I have participated in training through our local health department.
- I have taken a course for immunizations to keep up my certification through the AAMA
- I HAVE TAUGHT CLASSES TO STAFF FOR THE PURPOSE OF USING THE REGISTRY.
- I have went to training spring/summer 2007 at Laurel Co. Health Dept. when they offered it. It helped alot. I think there should be more training sessions to keep us updated on new info.
- I keep up to date on all vaccine related to my travel medicine clinic
- I may go to lectures regarding new vaccines
- I only received training in school and when I was a new employee
- I participate in training offered through our Public Health facility and broadcasts through the CDC.
- I read all information that is available to keep myself educated, along with any training that my clinic offers.
- I receive information and updates on immunizations and schedules through mail from VFC. I also receive updates and information through our PEDIATRIC office. They also keep me updated and informed of any changes and go over procedures, inputting information in ASIIS such as lot numbers, recall system and inventory.

- I take advantage of the local DOH training seminars on a fairly regular basis
- I teach the Medical Asst Clinical Lab at the Community College. Vaccines is something I spend a lot of time on.
- I think that we need more information regarding side effects and more education for parents questioning the immunizations we are giving them. Staff should be more prepared for questions.
- I think the person-medical assistant should have been trained in a licensed facility and have taken the certification exam.
- I took a class when first hired
- I usually get emails on any immunization changes, and ask questions to clarify or if I don't understand it. Sometimes I ask other employees.
- I usually go to AZ Immunization conference where I received trainings in workshop settings.
- I was just thrown into it when I got my first job as a medical assistant in a family practice setting.
- I watched a DVD about administering vaccines.
- I went to a seminar once.
- I went to a state info session.
- I went to the health department for an update about 6 years ago.
- I went to the training that was provided
- I work for the Public Health department as a Medical Assistant (MOA) and I train staff-providers, nurses, MA's on proper storage and handling of vaccines, maintaining cold chain, The VFC Immunization Program, ordering immunizations, etc
- I WORK IN A HOSPITAL.
- IDPH offers a Vaccine University locally and there is a major conference every other year
- If reading bulletins is considered training, then I have training. Otherwise none.
- Immunization Training every year and test required to be done by our clinic every year as well.
- Immunization updated thru Nat'l Convention.
- immunization conferences
- In my MA program immunizations were not discussed in depth. Now that I am working in the medical field I don't feel that I have had sufficient training on immunizations.
- IN THE CLINIC THAT I WORK THEY DO NOT OFFER OTHER MEDICAL ASST. TO GO TO TRAINING UNLESS YOU ARE THE HEAD NURSE, SO I LEARN EVERYTHING I KNOW ON MY OWN.
- information training was given at separate site about recording in the state registry
- Initially prior to administering any injections, the MA's have "injection training". Other training, changes, new equipment etc is done on the job.
- Injection Training was required at my job.
- Iowa Department of Public Health Training Sessions AAMA conference
- Iowa Department of Public Health Vaccine University 2007
- Iowa Dept Public Health Workshops
- I'VE BEEN AN MEDICAL ASSISTANT FOR FOURTEEN YEARS. I HAVEN'T HAD TRAINING SINCE 2002.
- I've been to one office training since I started my job 1 month ago.
- I've been to seminars regarding immunization updates etc.
- Just the web iz training on how to enter vacc. into web iz
- just when I went to medical training TCH
- mainly it is yearly for updates or when initiated by clinical staff.

- Mandated yearly training
- MDCH seminars in the fall
- Medical Assistant Meeting - 1 hour
- new staff
- NJ offers VFC update classes twice a year that I attend
- offered to me when i started emplyment,we are given information regaurding Immz training but no coverage to cover so you can go to these event.
- On a daily bases
- On the job training
- On the job training
- on the job training by another medical assistant
- once a year
- once a year at a vaccine convention
- once a year my office provides an UTD (nurse trainingas a refresher course) meeting for
- online training through Texas Vaccines for Children
- Only been to one training.
- Orientation upon employment with documentation of mentor for three administrations of each vaccine.
- other than when I first hired on I saw the movie and it is repeated each year.
- Our clinic/hospital provided a class on immunizations, which in return we got a CEU.
- Our local health department offers annual seminars in immunizations
- Our local health dept. comes in and does a yearly inservice for my staff because of the size.
- OUR PUBLIC HEALTH NURSE MAKES SURE THAT WE ARE KEPT UP TO DATE ON ANY CHANGES.
- Please look at the previous page and see my comments.
- public health seminars
- read needle tips and vaccine questions and answers from e-mail publications, etc.
- Recently @ hospital with Health Dept.
- regularly attend state DOH immunization updates and refresher courses once or twice a year
- regularly through work, occasionally through continuing education with AAMA
- RN's do most of the immunization work in our clinic.
- school
- SCHOOL, AND IN OFFICE EXPERIENCE.
- seminar offered by the state
- Seminars offered by our local Public Health Dept
- since starting vaccine position
- Someone from the city usually comes in once yearly to go over current and any new vaccines
- Sometimes
- state offered updates
- State and VFC updates - we rotate 2 staff MAs twice per year = each ma attends every 18 months
- state conferences when available
- State health Dept training
- State Immunization Conference
- State offered trainings
- State offers on-site immunization update class when requested by a medical office
- State sponsored training

- State Training
- State vaccine registry workshop
- TAPI TRAININGS
- tdh came to work for training on immunization teq
- The above 3 items checked are informational emails received.
- The city health dept offers training sessions yearly
- the clinic I work at works very close with the State of Washington Health Department
- the knowledge from school in combination from on the job and also reading anything in regards to immunizations.
- The Office for which I work uses state vaccine. At the beginning of each school year, the nurse from the county comes out and we go over all new changes and school requirements. We also go over new vaccines that are offered as well as their sites, administration routes, reactions and maintenance. If there are any changes in the way they are to be ordered we discuss it at this time.
- the only training I received was when I was hired.
- The person in charge of state vaccines in our clinic is very good to update staff of changes due to shortage, etc.
- The state of SC has immunization seminars 2-3 times a year. It is free to attend and very informative.
- The yearly Texas Vaccine For Children workshop
- There have been immunization clinics that I have gone to in the last 2 years/
- Thr state of Ia had an immunization clinic last year that offered CEU's to MA's
- throught the career college that i attended
- Thru the military.
- took CME course through the AAMA
- training consists literature given to read and info from company rep
- Training new employees
- Training sessions in the hospital with a group setting
- upon shortages of vaccines the providers inform their staff of the formate he will use to provide all required Imm.
- usually yearly
- Vaccine reps at times will come to our office and give us an up to date training on info
- Vaccine Updates put on by the Iowa Department of Public Health, Conferences sponsored by the CDC (annually)
- VACCINES FOR CHILDREN WORKSHOPS ANNUALLY
- VFC cheduled educatin and Oregon Society Medical Assistants continuing education programs
- VFC has offered some training
- we are not trained on immun, we are reading e-mails or learning about it from co-workers
- We do have the reps from the companies come and explain the new vaccines to us, and answer any questions that we or parents may have.
- We do not do trainings. We did not even have an inservice to show us how to due FluMist, or to answer our questions about it. The only training was about new syringes that we have not started using.
- We do training with Wellspan Health
- We had a training DVD about 1 year ago when we hired a few untrained people. That's all we've ever had.

- We have annual training in our office regarding childhood immunizations provided by the public health department.
- we have update training at least once a year
- Webcasts by the CDC
- Went to a seminar couple years ago
- Went to Asis class on 07/23/08
- When a Pharmaceutical rep provides an inservice on their immunization products
- When all new hires start to work in the office and training some student medical assistants when their externship is done in our office.
- when any training is available, I try to attend
- when ceu's are offered at chapter/state meetings
- when changes arise
- When I first got hired at the clinic where I am currently working.
- When I first hired I needed to attend a training class on immunizations, and needed to test out as well. That was about ten years ago.
- when I have opportunity through healthcare system training and seminars or working temporarily in healthcare clinics
- When I started a new job
- When I started my job, and pharmaceutical rep gave info session during lunch
- WHEN I STUDY
- when I was first hired here we had to be retrained on giving immunizations before we could give them.
- When immunization updates are offered by the local health department.
- when manager has a meeting about changes or updates
- WHEN MY CLINIC SETS ONE UP, USUALLY ONCE A YEAR
- when offered by the health department about once every 2 years
- when pharmaceutical reps. do inservices
- when state immunization coordinators set up regional immunization updates
- when the cdc is giving updates on the newest vaccinations and the current ones.
- when the city have a training
- When the city of Houston offer training on site.
- When the local Health Department offers additional training.
- when the office participated in the vaccines for children program
- when the state health dept has training
- When the state offers the yearly immunization conference.
- WHEN THE STATE OFFERS TRAINING
- when the state offers training
- When there is a change in personnel
- when we attend yearly conferences
- When we enrolled in the Vaccines for Children program.
- When we have speakers for CMA's for CEU's
- When we have student's come to our office for their internship
- When we have students from local Medical Assistants schools or new employees, i am in charge of training them.
- when you are in your first day of training.
- whenever i can

- Whenever they become available in Tucson, and at times, Phoenix.
- will be attending immunization training 9/10//2008
- WIR workshops/training, belong to county immunization coalition
- work at uc berkeley. university health services, tang center. RN or NP will administer
- Work related training
- workshops sponsored by AAMA
- yearly
- yearly at the state offered vaccine conference
- yearly immunization forum
- yearly OSHA/bloodborn pathogens update
- yearly seminars given by the DPH
- Yearly updates prior to new flu vaccine

Past Immunization Trainings

In the past, how have you received immunization training?

- "Hands On" Classroom setting taught by an RN followed by "Validation" of skills by RN/LPN with experience administering vaccines.
- a DVD that we got from VFC
- AAMA local chapter meetings
- AAMA offers training session
- Annual on-line training.
- asiis training
- attending immunization seminars, DOH tapes
- BOOKS, AND NEWSPAPER
- By attendind an accredited school by the AAMA.
- CDC web site regarding schedules.
- CDC website
- CEU
- Check CDC web page often, when I have any question regarding adm.
- clinical training with an instructor and hands on materials
- CME lunches or dinners at hospitals or restaurants given by Pharmaceutical reps or by insurance companies
- college
- COLLEGE
- Department of Health Websites
- DPH
- During Pedia-pred
- during school
- education staff send an email
- email
- email notices thru Immunize.org
- email releases
- Email.
- e-mails and paper copies

- formal training program for medical assistants
- Going to classes on off site programs thru several of the services in the community
- Health Dept on vaccines ordering and administration
- Health Dept. staff member comes to office to talk to me
- I like to review what i learned in school
- I did not received any immunization training with my last employer.
- I gained experience through hands on training with the first medical office I worked for.
- I like to keep with the CDC and Vaccine for children up dated on my internet.
- I RECIVED TRAINING IN CLASS FORM AT US NAVAL HOSPITAL CORPS SCHOOL
- I use CDC Yellow Book for Travel Medicine
- I WENT TO TEXAS SCHOOL OF BUISNESS AND WE LEARNED IMMUNIZATION TRAINING AND HOW TO GIVE THE SHOTS
- I will usually read the product information that comes with the vaccine vials.
- I WORK IN A HOSPITAL SETTING
- If I do not know I will study the insert prior to administering
- Immunization Traning during my time in technical school in training to be a CMA.
- in class.
- in school
- In school and also with co-workers
- in school as a student and as a new employee at a clinic
- In school training
- In the classroom and by my physician when there is the need to learn about a new vaccine.
- In this county the health department offers updates and training twice a year. very informative
- Info. on the web when links are provided by out immunization specialists.
- information pamphlets
- initial schooling
- internet courses offered by TVFC
- learned by my employees on the job
- LHD representative
- MA school
- MA school
- MA school
- MA school
- MA school and at various jobs.
- manufacturer mailings, VFC/Arizona Dept of Health mailings/faxes, instructors at MA school
- Medical Assisting school
- Michigan Primary care in Michigan provides monthly updates from new vaccines to storage and handling new schedules news updates
- military
- My clinic trains new employees one on one to train them specifically on the processes of administering immunizations in pediatric departments, such as floats like myself.
- Navy Hospital Corps School, Great Lakes Naval Hospital Illinois, graduated, April, 1973. Naval Reservist Hospital Corpsman from 1973 until 1997.
- new employee oreintation
- New, Orentation

- No training at all, talk among peers.
- no,because I am medical doctor working as medical assistants
- Not in work. I get my info from CDC or MN health.
- Nurse manager emailing updates from CDC.
- Nurse or LVN trained in office as a refresher course.
- NURSING SCHOOL
- on hand training by other medical assistants
- on job training
- One on One with an individual who has experience in doing it
- One on one with the county health nurse at the local health department
- Our Education Co-ordinator regularly prints updates and other relevant information which she e-mails to the MA's
- outside training
- Previous to working for the Health Department-I only learned on the job by another MA or nurse.
- prior training from school
- School
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- School
- school & printed info
- school and at work
- school training
- self education. our clinic is very poor at offering any kind of training.
- self study with web-sites and new forms.
- State immunization seminar
- tdh internet site
- The Medical Assisting curriculum at MCC in Troy NC incorporates immunization and vaccine training in their Drug Therapy class that was a tremendous benefit to me as a student and now as a CMA.
- Trained in my medical assistant class at my local technical school.
- Training in school
- training received in school, health department
- Via telephone

- Video tape
- Watching and then actually giving the immunization while my preceptor watched me when I was in training.
- when available
- When our Health Department Rep comes in and trains us.
- when they can get to it.. they would chase me down and tell me what I did wrong
- While I was in school to be a medical assistant
- WISCONSIN/CDC/UPDATE CONFERENCE

Who provided or sponsored the immunization trainings you received in the past?

- A local hospital offered a free in service for physicians and their staff.
- american academy of pediatrics
- American Academy of Pediatrics
- Arizona Department of Health Services The Arizona Partnership for Immunization
- Arizona State Immunization Information System
- army medical training
- Center for National Competency Testing
- CHAD
- CHIRP
- clinic
- Clinical Director Network . www.cdn.com
- clinical training class
- college teachers
- Cox Health Plan - Educational Services
- employer
- Good old pink book
- Heald College, Stockton, California 95206 Professor:Terry Vance RN,NP
- Health Network Employer
- Health Plans / EPSDT coordinator
- Hospital Clinical Coordinator
- Hospital personnel
- I go to there web site frequently to see if there are any updates
- I have become familiar with vaccines through on the job experience and reading materials on a volunteer basis.
- IAC and other websites
- In school, Navy Reserves, on the job training, AAPA conference
- insurance companies
- Kaiser sponser
- Local health plan
- Local Visiting Nurse's Association
- Los Angeles network Immunization trainning(L.I.N.K.) San bernardino and Riverside counties(Vax Track)
- M.D.
- MA school where I recieved my Diploma for Medical Assistant.
- MCIR

- Michigan Primary care association
- military
- MPCA
- My department set it up with a preceptor
- MY EMPLOYER CIGNA
- Myself
- NJ State VFC program,
- North Carolina Immunization Registry
- Nurse Managers and Nursing education
- nursing web site
- on job training
- pharmacists
- RN supervisor that works @ the Support Center that works for CIGNA. Total training was one week.
- school
- School based program with definitive guidelines for compliance
- seminars, one-one-ones, and by trained staff
- SNHD
- staff from outside clinic
- state immunization program
- State of Maine
- tapii and assis
- tch
- teachers at my college
- Texas childrens news letters
- TEXAS SCHOOL OF BUSINESS WHERE I WENT TO MEDICAL ASSISTANT SCHOOL
- The company I work for, upon hiring.
- the job
- THE ORGANIZATIONS SAFETY OFFICE THAT I WORKED FOR.
- they are many different ways that training occur, a little of drug rep .. a lot on the job via nurses and Doctors a lot via MA school.. A lot of reading the insert in the immunizations..
- TRAINING AT US NAVAL HOSPITAL CORPS SCHOOL
- U.S.Navy
- usiis
- Vaccine for children program in Arizona
- vaccines for children.
- VFC
- VFC Program
- Via continuing education seminars, which are lectures, not "hands-on." In-house training is when nurse instructs/refreshes us prior to giving injections.
- we get our info from our Nursing Sr Project Cood
- Yearly Team Benefits Evaluation from my company. Refresher training

What resources do you use to update your immunization knowledge?

- A.R.M.A.
- AAAAI and ACAI newsletters, updates, conferences
- AAMA
- AAMA - CMA today Magazine
- AAMA and state MA conference
- AAMA CMA TODAY MAGAZINE FOR CERTIFIED MEDICAL ASISTANTS
- AAMA Home study courses
- AAMA magazine
- AAMA publications
- AAMA, AAPA/info from spouse who is a Physician Assistant.
- ACIP
- ACIP
- ALL RESOURCES IN HOUSE & ON LINE THAT I CAN GET. FROM.
- American Association of Medical Assistants
- American Medical Technology
- Attending the SC DHEC seminars that are held 2-3 times anually.
- Board of Health Fax Alerts, publications, American Association of Medical Assistants and leisure reading.
- CEU courses (by mail or online)
- CEU trainig with in the company
- CEU training thru AAMA, CMA TODAY
- CEU's offered through the AAMA
- CHRIP
- CMA magazine
- COMPUTER SEARCHES, USING RELIABLE SOURCES...
- continuing education credit test.
- COunty Health Department
- educational seminars with the VA Society of Medical Assistants
- Head office nurse and nurse in charge of vaccines
- Hospital continuing educ programs
- I also search the Web.
- I TRY TO KEEP UP WITH ALL NEW INFORMATION THAT COMES OUT I ALSO READ THE NEWS. BUT FOR NOT GOING TO ANY IMMS. CONFERENCES OR NEW UPDATE TRAINING I AM VERY KNOWLEDGEABLE
- I USUALLY GET NOTIFIED AT WORK VIA COMMAND WIDE E-MAIL WHEN THERE ARE CHANGES MADE IN ADMINISTRATION TECHNIQUE AND SUPPLIER CHANGES
- I worked in Internal medicine and worked in the flu clinics. Did not give vaccines. I work in Pedi. now.
- I would like to update my immunization knowledge.
- IAC
- IAC email updates
- IAC emails
- Immunization Action Coalition
- Immunization Action Coalition

- Immunization branch of NC regional consultant
- immunization e-letter
- Immunizations video required by the job
- immunize.org website
- Individual Health Plans and their requirements.
- Learn as I go
- Local County Health Department
- Local county's health department
- local medical assistants group
- Looking up information on the internet for myself and printing it.
- Michigan Primary Care association
- military
- MPCA
- NTTC
- Nursing school
- on line state
- Our clinic sends e-mail's alerting us of changes and new information that is important to people who administer immunizations.
- our info in eric, handouts
- Pedia-pred and Nursing education
- Read the handouts that are given to the patients
- State conferences if available
- The PINK BOOK
- Vaccine For Children
- Vaccine Information Statements - whenever a new one is published. Another good resource I have used is CHOP (Children's Hospital of Philadelphia). They have some excellent handouts about immunizations in the form of Q&A.
- Vaccines for children program
- various vaccine based web sites.
- Via their web-site
- video
- vis
- VIS sheets. Looking up specific vaccines on the internet
- we have a booklet from the state of michigan will all the info re: all vaccines
- we have very good monthly meeting through the local MA association. drug reps offer updates on new vaccines.
- web site and info sheet
- whatever the office practice is
- When I do CEU's yearly to keep up my CMA certification there will be alot of info re: immunizations.
- word of mouth by other MA's

Future Immunization Trainings

Are there any additional topics for which you need training?

- all natural medicines and treatments used along with prescribed medicines by physicians
- Although I work in an office where we administer a limited amount of vaccines, I am a huge supporter for education and performing skills properly. Some of the above items that are marked less important to me are done so due to the item or topic not being my responsibility in our office and/or I have no knowledge of our office performing such duties.
- Best practice for administration
- CLINICS NEED MORE INFO ON PPD. WHAT PARENTS NEED TO LOOK FOR, LIKE PICTURES. THE EXACT TIME TO READ THE TEST, OR TO BRING THE KID BACK IN. SO MORE PARENT INFO ON PPD.
- Draw amounts
- Educating Patient's on Sexually Transmitted Diseases
- establishing a good rapport with the parent so that they feel comfortable with you and making sure that the child is safe when you establish that you good to go
- Future training on existing Immunizations or future training on new future Vaccines coming out? This questions is worded a little confusingly. I do feel that all these topics are important and I think that in general CMA's could always use more knowledge.
- Future trainings for when there is a change in the way things are done or on a new vaccine.
- I also feel that this information should be updated yearly, even if we just get a web site that our clinic should be using to retrieve information and is used by everyone would be a good idea.
- I am not saying I currently need training in these areas, rather that all areas marked are very important to keep up to date on any change in information, etc.
- I am well trained but as anyone need refreshers all medical staff need to be highly trained in the vaccine / immunization area to keep our community protected
- I believe there should be training in basic injection procedures, ID, subQ, IM including Delt., glut., and Z-track
- I do not feel i need any additional training on imm just updates when schedules change
- I feel i have had adequate training on most issues listed.
- I feel like the CMA's are being picked on. we did go to school to learn these things. it is hard to do our job and be good at it when we are always waiting for a dr to sign orders. or to look for an rn. i fell personally that I am more than qualified to do this job.
- I feel that we should have refresher courses every so often, just to keep our skills and knowledge up to date.
- I give MANY shots each day, I would LOVE to know more about travel vaccines, and those schedules so I don't have to look up in a book each and every time.
- I know that there are some people who are not goving vaccines properly (IM and SQ). This means children are not fully immunized.
- I personally have received a total of 3 Smallpox immunizations. 1972-75&79. The technique using a bifurcated needle is not mentioned in any current text books. I am less than happy about the big fuss that is made over getting an immunization when the potential of the disease in so severe as compared to the small effects of the vaccine itself. However we should be prepared to give them properly, should the need arise.

- I received training in school and at the time, it seemed adequate, but once being employed at a clinic, I realized how many questions I had and proceeded to find answers. However, would like an in-depth "refresher" class/course to review all of these aspects with emphasis on giving immunizations to children under four; actual administration techniques and tips! Everyone in our clinic seems to do it differently and sometimes important factors conflict -- so which is right?
- I truly feel comfortable with given IMZ as well as answering any questions parents/teens may have re IMZ- I make it a vital point to learn with the services my job provides along with making any efforts to read on my own
- I work for a Dermatologist with the University of Louisville. I'm probably the above average CMA but I know almost all of the above information. Although, I'm familiar with the above I do not have the best opportunity to apply my knowledge in this particular field of medicine.
- I work in the clinical side this is my main priority although I think it is good to know as much as possible to work as a team in the medical office
- If an office offers vaccine services, all MAs should be required yearly to update.
- If this is directed to AAMA members, maybe the website could offer an email subscription to not only update members of immunizations but other "breaking news", updates and information in other areas of medical assisting.
- I'm currently the only employee in our office giving immunizations. Therefore at this time there is no current staff to train on immunizations. There might be a need in the future.
- I'm responsible for ordering vaccines, although I don't administer them. No billing/coding is done in this department.
- Injecting multiple vaccines in same sites. Registered Nurses need trainings!
- International travel, because if you do not work in this area you would need training to keep up on all the different requirements for each area. I am a CMA (AAMA) so I feel I am VERY confident in my knowledge and skills regarding vaccines and immunizations. I now work in a Surgery department so I do not give injections very often anymore.
- It is important to me to keep up to date on my immunization information.
- IV setups and administration and updates as new vaccines become available
- No I know them all.....
- now that there are so many " comb" vaccines for children , it is extremely important that CMA/MA's are educated on these combinations, according to age and the correct boosters to give depending on the type of the vaccine received example Hib -either 3 or 4 depending on manufacture
- On the database I have never had to do this in the past in Ohio, I now live in Indiana.
- Physician and Nurse Practitioner does education and risk evaluation and education as well as reviewing patient schedule for immunizations. Family Practice has only a few patients are on the state vaccine program for children. Paper documentation is kept.
- proper administration of vaccine; IM, SQ etc.
- Proper technique. Some offices never aspirate, some do, some offices always bunch the skin up, some pull tight for IMs, bunch up for SQ.
- Scope of practice for medical assistants. Are they or are they not allowed to give vaccines per state to state policy. Nothing's written specifically in NYS that says CMAs can or cannot give vaccines. People assume that they can not.
- South Carolina has an Immunization Registry but our Pediatric Practice is not on that registry. Also, our practice is own by a larger hospital system and they are the ones who set our prices for

vaccines (how much we will charge the pts.) Our office does participate in the VAFAC(Vaccines for Children) program.

- TB screening test
- the handling of the vaccine for childrens clinics. In order for your clinic to participate it is very important for the clinics to understand the scheduling and the guidelines of state programs. A clinic can loose their right to participate if these
- The organization where I work does not allow MAs to administer immunization.
- there are many new inj. that our office does not give (shingles, gardasil, over sea vaccinations) that I do not feel as confident to discuss with our patients. I refer them to the health dept.
- this is done regularly in the clinic
- vaccine administration for pediatrics
- Vaccine guidelines in terms of dosing intervals, especially regarding booster doses and differing indications according to vaccine manufacturers.
- We do not decide which vaccines to administer or if they get them, that is done by the physcian. We let them know what they've had and what they are due for according to the CDC schedule. The physician makes the final decision with the patient.
- what are you going for here??? I think the above is important .. do i need future education.. well not really .. but in general i think the above answers what is important for everyone to know..
- which shots can't be given with other types of shots.

Are there any additional training delivery methods you would prefer?

- A booklet that is revised and updated and mailed to the medical practices.
- AAMA programs, state, local or national.
- AAMA self-study/interactive update?
- Any of these would work as long as I get the information that is needed for me to do my job correctly.
- books or lectures that we are able to take home and read on our own time that are updated and current. Web sites that m.a.'s are able access when we are at home for reference.
- classroom
- Clearly stated messages through channels already in use to communicate with physician's offices.
- I am a HANDS ON learner.
- I feel in-person lectures are more effective in learning. You are able to ask questions and get feed back.
- I FEEL THAT ALL MEDICAL ASST. SHOULD GET CREDIT FROM CME'S I FEEL THAT IS A VITAL IMPORTANCE SO THAT WE ALL STAY CURRENT. I PERSONALLY GET CME'S THROUGH OUR LPN NURSE THAT WORKS HER SHE SHARES ALL THE CME'S WITH US, WE KEEP UP WITH ALL THE LATEST STUFF. BUT YES LECTURES AND BROADCASTS, PODCAST AND ALL OR ANY CD THAT ARE AVAILABLE ARE VERY IMPORTANT FOR ALL MEDICAL ASST. TO KEEP UP WITH THE CHANGE OF TECHNOLOGY.
- I feel that there needs to be not just knowledge but hands on training and practice
- I like group or one on one settings or even the teleconferences or conferences. I've also been to lectures provided by the CDC, state, or pharmaceutical rep. Continuing education credit is also very helpful for keeping my CMA credits active.
- I like it better when you have more hands on training. Not only lecture on the topic but show new procedures and techniques as well in person. Satellite is ok, but I prefer in-person contact. Just my preference.

- I like to be able to ask questions. I do think the CDs or DVDs are a very useful learning tool, but we need regular updates with a real person probably.
- I prefer hands on training.
- I think people should never learn how to give immunizations from a self study course, tape, or satellite conference. They should be trained in person where supervision can be given and they can practice on each other or a model.
- I would prefer someone OTHER THAN my supervisor
- In-person lecture where there is enough time to cover everything and have questions answered would be ideal. The self-study would work if it is detailed enough and answered all questions so you wouldn't have any to ask at the end of the session!
- Instruction by someone outside of current employer
- interaction, hands on is a better way of learning for me
- I've learned alot by using the epidemiology and prevention of vaccine-preventable diseases book.
- Most people are visual or handson learner, so it would be more benifial to have a live person informing CMA's about update on Immunizations.
- No, but just want to make it known I do best learning hands on so again the top 2 methods are my preferences.
- NOT ALL NURSES WHO DO INSTRUCTIONS ON IMMUNIZATIONS ARE AS DEDICATED AS THEY SHOULD BE. MY EXPERIENCE UPON GOING THROUGH SCHOOL WAS THAT THE INSTRUCTOR WOULD SIGN OFF JUST TO GET EVERYONE THROUGH THE COURSE....NOT ENOUGH INSTRUCTION WAS DONE ABOUT DOSAGES...JUST ADMINISTRATION.....I WENT TO ANOTHER INSTRUCTOR TO LEARN AND IN THE FIELD COURSE IS TO ME THE BEST WAY TO LEARN...I HAVE BEEN DOING THIS 6 YRS NOW AND I LOVE IT.
- online CEUs
- practice, and more practice
- School where I got my training or AAMA local chapter meetings/State conventions
- Some videos provided my somelectures actuallydontprovide true acurate techniques on giving IMZ. Not a problem for me a seasoned RMA for 15 years However my concern is for the new MA's entering this work field...
- The last few satelite broadcasts were more of a nuisance because of the quality of sound
- Training power point are also very informative and easy to forward to staff
- virtual reality
- With All the vaccines that are given today it might be a good idea if there was a conference on where to give them at different ages. I know that some CMA's are giving shots in the arm at certain ages and some of us are told by our physcians they do not want them given in the arm until they reach kindergarten.
- would like to be compensated for my time if education is done during off work hours

Are there any additional educational strategies you would prefer?

- Absolutely hands on
- again, hands on practice is vital
- Anything that would promote critical thinking skills
- hands on
- how to manage this clinic. sunset clinic

- I like how I was trained. Just wish there was a better way of staying abreast on new medications and vaccines that are available as well as possibly the drug companies or medical supply manufacturers offering the opportunity for individuals to participate in a workshop on how to use new devices and equipment. I know that this is being done somewhat now, but maybe so more in the future to prevent errors from being made.
- I prefer to read or listen to my information. No interaction necessary.
- In person conferences
- It is always helpful when there is a paper hand-out of the itinerary, speech, graphs, etc with the person conducting the lecture.
- lecture format w/visual aids, handouts
- lecture with educational handouts that can be taken back to work to use as reference material
- printed manuals
- Provide the information so that it is short and to the point . A lack of time is a key factor in my office. Sometimes I'm lucky to get a bathroom break... if you know what I mean.
- self studies

Motivators and Barriers to Training

Are there any other factors that motivate you to participate in immunization training?

- Avoiding mistakes and vaccine wastage.
- being asked to participate. additional educational information on vaccines.
- cost and location of the training; times available, urgency of the training such as a suspected epidemic
- Feel most confident when I have the education that I need before I talk with patients
- Free food.
- having the knowledge to keep our patients safe and healthy.
- how to expand the clinic alot more than what it is now. thank you...
- I am the clinical supervisor for my office so it is my job to keep up with training to to be able to train employee's if needed.
- I love to learn new things and in particular when it involves my job.
- i love winning awards from the state and recognition from my organization. we have 128 employees in our differnt offices and i won a "Shining Star" award for my offices immunization program.
- I need to teach my student current and correct information and appropriate resources for their continuing educational needs including regular updates.
- I want to be knowledgeable about what I am doing and why and be able to respond to questions asked of me, and be assured I am doing no harm.
- it helps protect my kids when I know what I'm doing!
- Its not a matter of what it gains ie = (money) its what i gain.. I like being able to explain myself to everyone and that includes both patients and other workers.. It is very it helps in every aspect.. I certainly want to know what to do.. patients well-being is at stake..
- just to do a good job and make patient feel comfortable
- Keep knowledge current as I am responsible for new staff training
- Knowing that I am keeping my patients safe and protected.

- Knowledge gives me better understanding and ability to work with staff in their areas of need.
- knowledge is power
- Mostly to be safe, and give the correct information to my patients.
- my goal is to make it safer for our children
- My own competence in what I am doing so that I "do no harm"
- Patient safety is my Number 1 motivator on learning about immunization training.
- patient safety and education
- PROVIDING THE HIGHEST QUALITY CARE FOR PATIENTS
- Salary, definitely. LPN's are getting paid more for doing the exact same thing that we are doing and at times they are asking us questions in regards to immunizations, etc.
- Self motivation, I like my JOB!
- self satisfaction
- Simply continuing my education and/or knowledge
- the knowledge alone
- the more someone knows about the drug or immunization the more comfortable they will feel and that will set the patient more at ease to make a better experience for the patient.
- The more knowledge you acquire the more valuable you are!
- The most important to me is when I took over the immunizations at the clinic where I work we were at less than 50% now we are 95-100% for children 24-36 months. It is very important to me to take care of the children so that they will have a bright and healthy future.
- TO FEEL SECURE AND CONFIDENT THAT I CAN ANSWER QUESTIONS AND THAT I KNOW WHAT I AM DOING
- We do not receive any additional pay for any training or new services we learn to provide.
- With healthcare always changing and improving, I want to stay as current and abreast on the newest methods and medications as possible so that I can be an asset to anyone who employs me.
- Yes, I have children and I want someone that knows what they are doing when giving my child an immunization for you have heard were people believe their child ended up having birth defects from getting too much or not enough or it was given right, so I want parents to know how important immunizations are and they can see that I know what I'm doing.

Are there any other factors that are barriers for you to participate in immunization training?

- A lot of these training sessions are during 8-5 work hours which tends to make it difficult for office CMA's to attend, and worry that you're leaving the rest of the office short staffed. After 5:00 or weekends would work out better.
- CMA supplemental learning programs.. so CMA's stay in the loop
- Currently not able to do any training during working hours due to staff cuts. Can take off of work if there is plenty of notice and our office can plan for it.
- Due to the location of our clinic it is difficult to attend any training. We are located in Ft. Mohave AZ which is about 5 hours away from Phoenix AZ.
- I am fortunate to have managerial support and funding for my training needs, but time is always a factor as is time to travel.
- I need to know how to get the training
- In my geographical area, I do not hear of any seminars in regards to administering immunizations. There are some on new medications and vaccines that the FDA is making available, but in regards

to new procedures, techniques, it's kind of a learn as you go from someone who happens to observe you and says "hey, there is an easier, safer way of doing that" or "there is a new vaccine out that you may want to use instead".

- lack of available training offered
- Need to have training daily not once per year
- Off site and after hours harder to get to because of family committments.
- our hospital does not let the medical assistants give immunizations,however my previous job for 16 years did i have 20 plus years experience in immunizations i am also certified by two organizations state and nationally
- Our office educational onle but can be used for classes now and not for travel or lodging which makes the traverse city location much more expensive, spring is usually too busy for the detroit/east side conference.
- Private clinic offers education pertinent to my position
- staff not realizing how important it is to know this stuff. so when you do try to show them the correct way they don't get it. it's important to have inservices at least every 3 mos. or so.
- There is a lack of awareness from the CDC as to how important the certified medical assistant is in giving and working with immunizations and we are a profession that is greatly under estimated and overlooked.
- Unavailable training.
- usually after work works better since you are not interrupted constantly
- We need real trainings, not our supervisor walking around to give us a 5 minute description.
- where does the trianing occur?
- WOULD BE PREFERABLE TO HAVE INSERVICE TRAININGS WITH EACH UPDATE AND OR CHANGES TO THE SCHEDULE IN ADVANCE WHENEVER POSSIBLE. WE END UP HAVING TO PLAY ALOT OF CATCH UP AT THE TIME WE ARE ATTEMPTING TO PROVIDE THE IMMUNIZATIONS - NOT CONDUCIVE TO GOOD PATIENT CARE AND SATISFACTION.
- Yes the place where I am employed at the Nursing staff usually provides the immunizations.

Communicating with Medical Assistants

How did you learn about this survey? (websites and other responses)

- (email removed)
- (name and email address removed)
- (name removed) from Vaccine for Childen Program
- (name removed) MANAGER, IMMUNIZATION INITIATIVES AMERICAN ACADEMY OF PEDIATRICS
- (name removed) our CHIRP and Vaccine Expert,God Bless her soul.
- (name removed), affiliated with Cox Health E-mailed it to us for filling out
- A paper was faxed to our office.
- AAAM Web Site
- AAMA
- AAMA
- AAMA
- aama

- aama
- AAMA
- AAMA website
- aama website
- aama website
- AAMA website
- AAMA Website
- aama website
- AAMA website
- AAMA website
- AAMA/ntl.org
- AAMA's website
- AAP list serve
- administration
- Administration Department.
- Advised by supervisor
- american registry of medical assistants
- An email from my office manager.
- announcement for health care setting
- ANNOUNCEMENT FROM MY BOSS.
- Announcement from national AAMA society
- Announcement in the IAC express website
- announcement to complete by managers/supervisors
- another coworker
- ARMA
- ARMA
- arma
- ARMA-cert.org
- at school
- az dept of health services letter
- Boss in office
- Boss sent by email.
- by email from office manager
- by fax
- By Fax from Department OF public Health Services Phoenix AZ
- by my practice manager
- CDC
- CDC
- cdc
- CDC
- cdc sent letter
- CDC vaccine info for Healthcare workers
- CDC vaccine website
- CDC website
- CDC website
- CDC Website

- cdc website
- cdc website
- CDC website
- CDC.gov
- CEO
- CEO
- CEO of FHC
- CEO of my clinic
- CEO of the company
- cigna peer staff/management
- Clinic Office Manager
- clinical educator
- communication from my office manager
- communication with my supervisor
- Co-Worker
- co-worker
- dept of state health services
- director of patient services where I work
- DON
- dshs immunization program
- educational coordinator for TCPA
- Educational Services- Cox Health
- email
- Email
- Email
- e-mail
- e-mail
- E-mail
- e-mail
- Email form my Supervisor
- email form staff educators at work
- email from admin
- email from cdc representative
- email from central office immz coordinator
- e-mail from clinic manager.
- email from employer
- e-mail from employer's staff educator
- E-mail from Employee Health Coordinator
- Email from hospital stating to perform survey
- email from IAC
- email from IAC express
- email from manager
- email from Melissa Alperin
- email from my clinic manager
- email from my employer
- E-mail from my employer

- e-mail from my office manager
- email from my supervisor
- email from office manager
- email from office manager
- e-mail from office manager
- E-mail from office manager
- Email from State DOH
- email from state health dept/vfc program
- E-mail from supervisor
- Email from supervisor
- Email from supervisor
- email from supervisor
- Email from supervisor
- e-mail from supervisor
- email from supervisor.
- email from teacher at my tech school
- email from the county health dept re: student vaccines
- email from the state health department
- Email from VFC
- Email referral from work clinic manager/supervisor
- Emailed to me from management
- emailed to me from our Staff educators
- e-mailed to the CEO of the clinic who then e-mailed it to all the MA's
- Email
- EMPLOYER
- EMPLOYER
- employer
- employer
- Family Health Center sent me the email
- fax
- Fax
- fax from Arizona Medical Association
- fax from cdc
- Fax from Harris County
- fax from health district
- FAX FROM LBOWERS FROM HARRIS COUNTY
- fax from state immunization staff
- Fax from the health dept
- fax from Williamson County Health Department
- Fax received
- Fax sent to office.
- Faxed letter from Texas Dept. of State Health Services
- FORWARDED E-MAIL FROM OFFICE MANAGER
- Forwarded from our corporate office via E-mail
- Forwarded to me by supervisor
- found out on the AAMA website

- FROM DSHS IMMUNIZATION PROGRAM
- from IAC Express
- From IAC Express newsletter
- from my employer
- From my manager
- From my supervisor
- from my supervisor
- From Office manager
- from our corp. office
- FROM STAFF EDUCATORS
- from supervisor
- from supervisor
- from this College and medical assistant through AAMA
- FROM VFC
- got an email at work
- health department
- health department sent fax
- Health Dept. sent out a flyer
- health district
- Hospital mandated
- <http://www.aama-ntl.org>
- <http://www.aama-ntl.org/>
- <http://www.r01.tdh.state.tx.us/> Fax sent to the office
- Human Resources
- Human resources coordinator at my job
- I learned about this survey from my supervisor. She emailed it to the entire staff to complete.
- I received the link from our health education department.
- I was checking my CEU's online and it asked if I wanted to do a survey
- I was doing some research on vaccines and this page popped up.
- I was looking at the AAMA web site.
- IAC
- IAC
- IAC
- IAC
- IAC
- IAC
- IAC electronic newsletter
- IAC email
- IAC express
- IAC Express
- IAC express
- IAC EXPRESS NEWSLETTER
- IAC Express that I receive via email
- IAC Express Update E-mail
- IAC list serve
- IAC newsletter

- IAC newsletter received via e-mail to the doctor
- Immunization Action Coalition
- IMMUNIZATION ACTION COALITION
- Immunization Action Coalition News Letters
- immunization e letter for the indiana state department of health
- Immunize.org newsletter
- In-house email from supervisor
- Iowa Society of Med Assts Website
- Is posted on our out look express e mail here at the clinic.
- it was e-mailed to me
- it was emailed to me and i have to do the survey
- it was sent out as part of our universal email
- it was sent via e-mail by the CEO of the clinic
- It was sent via email to me.
- job
- Just looking for immunization information on Google
- Letter from VFC Immunization Program
- List Serve
- Local Health Department
- Local health dept
- MA
- magazine
- mail notification
- Management
- Management asked for all medical assistants to complete the survey
- Manager
- Manager
- manager
- manager
- Manager
- Manager
- MANAGER
- manager
- manager referral
- Manager sent an e-mail that was forwarded from the hospital.
- Manager set to us in our email
- masurvey@sph.emory.edu
- member of the aama I go on line to just check for updates
- my boss
- MY BOSS
- my boss
- My boss emailed me the link, as she got it from her supervisor.
- my boss gave it to me
- my job send out an email about the survey. I work for Children hospital of philadelphia
- My manager
- My manager sent this to me.

- My office manager
- My supervisor
- My supervisor
- my supervisor
- my supervisor
- my supervisor
- my supervisor
- my supervisor
- my supervisor
- my supervisor
- my supervisor
- My supervisor asked me to participate
- My Supervisor emailed it to me.
- my supervisor gave me the websight
- my supervisor here at work
- My supervisor sent it to all MA's from the state of AZ.
- my supervisor sent it to me via email
- My supervisor!
- My supervisor.
- my supervisor/employer
- Nevada WebIZ
- Notice received from the Arizona Department of Health Services Immunization Program- addressed to all VFC providers
- notification from state health dept
- NOTIFIED BY OUR CLINICAL EDUCATION DEPARTEMENT
- Office Manager
- OFFICE MANAGER
- OFFICE MANAGER
- office manager
- Office Manager
- Office Manager
- office manager
- office manager
- Office manager
- Office Manager
- office manager
- office manager
- Office manager is member of PAHCOM
- Office manager requested staff to take the survey.
- Office Manager sent it to me and requested I complete it.
- office manager/pa
- Office manger forwarded
- Office required
- On aama website
- on the AAMA website
- on the aama website

- Oregon Dept of Human Services, Health services immunization program
- other - fax from Tx. dept of state health services
- oUR BOSS
- Our corporate office forwarded this via email. Unsure how they learned about it.
- OUR DIRECTOR OF OPERATIONS POSTED THE MEMO
- Our immunization coordinator sent an email to our office manager, who then sent an email to all the MA's in the office..
- Our internal employee infection control office
- our manager send it to us
- Our nurse manager
- Owner of the office
- Pa chapter of AAP
- pahcom
- pahcom
- PAHCOM newsletter
- per my supervisor
- practice manager
- Professional Organization
- Received a email from my office manager
- received e-mail from supervisor and wet to web site
- received memo from office manager
- Referral from a supervisor's supervisor.
- Referral from employer
- referral from QM
- Referral/request from CEO and Imms. Coordinator for the comp. I work for.
- requested by our administration dept.
- safety officer at work
- Saw this on the CDC website
- Sent from TPCHD
- sent through work e-mail
- sent to me by a co-worker
- Sent to me by my boss
- sent to us in our e-mail at work
- ST JOSEPHS HOSPITAL AND MEDICAL CENTER
- STAFF ED DEPARTMENT
- State Health Department
- state health department email
- STATE HEALTH DEPT
- state sent email to our rn at our office
- supervisor
- Supervisor sent out an email
- supervisor
- supervisor
- supervisor
- Supervisor
- Supervisor

- Supervisor
- supervisor
- supervisor
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- Supervisor
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- Supervisor
- supervisor
- Supervisor
- supervisor
- Supervisor
- supervisor
- supervisor
- Supervisor
- Supervisor
- supervisor
- supervisor
- supervisor
- SUPERVISOR
- supervisor
- Supervisor and Immunization head.
- supervisor asked me to do this
- Supervisor asked us to take it.
- Supervisor at work.
- Supervisor brought it to my attention
- supervisor e-mailed this to me to do.
- supervisor emailed to me
- Supervisor e-mailed us the survey link
- Supervisor's e-mail
- teacher
- teacher
- TEXAS DEPARTMENT OF HEALTH
- Texas Department of State Health Services
- texas department of state health services
- texas department of state health services
- Texas Dept of State Health Services
- texas dept of state health services
- Texas Dept. of State Health Services
- the ARMA website
- The Clinic Manager
- THE CLINICS OFFICE MANAGER
- The office manager.
- the Tacoma Pierce County Health Dept sent me an email
- This survey is supposed to be linked soon to the SCSMA.org website.
- through my employer
- Through my employer, a Hospital sending out an email to all medical assistants employed by them.

- through our manager
- Through the fax.
- through work email from management
- Thru work email.
- tx dept of state health services
- vaccine e letter
- VFC
- VFC email
- VFC fax update sent to my office
- VFC meeting
- VFC newsletter
- VFC newsletter
- was an e-mail sent to employees
- WAS EMAILED TO ME BY CDC/VFC
- Was Faxed a message from State Department of Health Services
- was given by my manager
- was on IAC website
- Was on the AAMA website
- WAS TOLD BY MY SUPERVISOR THAT WE HAD TO TAKE THE SURVEY
- We received a fax from SNHD
- WEB SITE ANNOUNCEMENT FROM SUPPERVISOR
- Williamson County And Cities Health District
- williamson county health department notification
- work
- work
- Work
- work
- work E-mail
- WORK EMAIL BY SUPERVISOR
- work offered survey
- work supervisor
- work website/continuing education dept
- Work/Health Department
- www.aama-ntl.org
- www.aama-ntl.org
- www.arma-cert.org
- www.cdc.gov
- www.masurvey.org
- www.masurvey.org

The purpose of this survey is to gather information about the immunization training needs and preferences of medical assistants. What is the BEST way to let you know a new immunization training is available?

- (email address removed)
- (email address removed)
- (email address removed)
- (email address removed)
- (name and address removed)
- (name and address removed)
- ACTUALLY ALL OF THESE WAYS WOULD BE REALLY HELPFUL
- All of the Above
- also contact office @ (phone number removed)
- and email
- and in the AAMA magazine
- announcement from local health dept
- announcement through supervisor
- ANNOUNCEMENTS-from my TDH supervisor
- asiis
- by fax@ (removed fax number)
- By the immunization training staff.
- by website,by mail ,by email
- center if disease control or the health department vfc program
- email to our office administration
- Employer should be notifying and provide additional trainings.
- employment
- employment/office manager
- fax
- fax
- fax
- fax
- fax
- Fax from Texas Dept. of Health Services
- FAX PHONE
- fax to employer
- from my employer
- I say US mail vs. email in that sometimes this is deleted or caught in the spam file and I cannot retrieve it or I delete it thinking it is just junk mail.
- I would have to say all because each office is different when it comes to getting information so one way or the other all will be sure to know.
- Letting my D.O.N know about it.
- management
- management staff
- manager announces info and hangs the info up in office in plenty of time to make plans
- MCIR, CDC

- notify office manager
- notifying supervisor
- office manager
- Office Manager
- OFFICE MANAGERS
- OR EMAIL
- Richland College Medical Assistant program e-mails list
- State of Nevada, Health Department
- state VFC personnel
- supervisor
- supervisor at work
- texas health dept
- text messaging to (phone number removed)
- the physician I work for
- THROUGH MY WORK PLACE, FROM MY BOSS OR DIRECTOR
- through office
- through state health department newsletter
- Through Supervisor
- through texas department of state health and vaccine companies
- through the resgistry I belong to.
- Through the Virginia Society of Medical Assistants
- Through work.
- work
- work
- work website

Which of the following websites would be the best location for such an announcement?

- all of the above
- ARMA-CERT.ORG
- asiis
- Employer
- employment web site or news letter
- IAC
- IAC Express from Immunize.org
- office
- our home page of shareplace
- The Immunization Action Coalition