



# IMMUNIZATION INITIATIVES NEWSLETTER

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- Red Book Online
- **Special Section: Applying Management Analysis of Excellence to Immunization**

## General Information

- **Quick Stat: Rate of Hospitalizations for Pertussis Among U.S. Infants Aged <6 Months: 1994-1998 and 1999-2003**  
CDC data indicate that more than 90% of hospitalizations for pertussis among children aged <2 years occurred in infants aged <6 months, a group too young either to receive vaccination or to have developed adequate protection from vaccinated mothers. The pertussis hospitalization rate for infants aged <6 months increased by 20% from 1994-1998 to 1999-2003. [View the MMWR article.](#)
- **[Revised Interim Tdap Vaccine Information Statement](#)**  
The CDC has revised the tetanus-diphtheria-pertussis (Tdap) Vaccine Information System (VIS) to correct a misprint in the original interim VIS for Tdap vaccine. In the first section (Why get vaccinated?), the last sentence under the "Pertussis" section correctly states, "Up to 2 in 100 adolescents with pertussis are hospitalized or have complications." The sentence had previously read, "Up to 2 in 10 adolescents with pertussis are hospitalized or have complications."
- **CDC Issues Revised VIS Following Alert on Menactra™ and GBS**  
Following several cases of Guillain-Barre Syndrome (GBS) after Menactra™ vaccination, CDC has revised the meningococcal conjugate vaccine (MCV4) Vaccine Information Statement (VIS) to include information about the potential association between the vaccine and the disease. For more information, visit the [CDC Web site](#) and click "Meningococcal."
- **PCV7 Vaccine in Young Children Reduces Disease in Children/Adults**  
Streptococcus pneumoniae (pneumococcus) is a leading cause of pneumonia and meningitis in the U.S. and disproportionately affects young children and the elderly. In 2000, a 7-valent pneumococcal conjugate vaccine (PCV7) was licensed in the U.S. for routine use in children aged <5 years. Surveillance data from 2001 and 2002 indicated substantial declines in invasive pneumococcal disease in children and adults compared with prevaccine years. [View the MMWR article here.](#)
- **Immunization Registries Help Children Avoid Extra Shots**  
In Louisiana, Mississippi, and Alabama, many people who had to evacuate lost not only homes and possessions but also personal records such as their children's shot records. Whether some children are up-to-date on their shots or need to be vaccinated is being answered through existing immunization information systems. In Louisiana alone, CDC

## Pediatric Practice In Action!

On August 11, the Food and Drug Administration (FDA) approved VAQTA™, a hepatitis A vaccine developed by Merck. This product is approved for use in children ages 12 months and older.

In October, the FDA reported that VAQTA™ is now indicated for active immunization of persons aged >12 months to protect against disease caused by hepatitis A virus. The primary vaccination schedule is unchanged and consists of 2 doses, administered on a 0, 6-18 month schedule. According to an article published in the October 14 issue of Morbidity and Mortality Weekly Report (MMWR), results from the study to lower the age indication for VAQTA™ indicated that 100% of 343 initially seronegative children aged 12--23 months who received 2 doses of VAQTA™ had seroconverted to antibody levels previously indicated to be protective. The study also indicated that VAQTA™ may be administered concomitantly with MMR II (measles, mumps, and rubella virus vaccine live).

Insufficient data are available to evaluate the concomitant use of VAQTA™ with other routinely recommended childhood vaccines. According to the general recommendations of Advisory Committee on Immunization Practices (ACIP), inactivated vaccines generally do not interfere with the immune response to other inactivated or live vaccines<sup>1</sup>. In combined clinical trials reported as part of the labeling change application, 706 healthy children aged 12-23 months received >1 doses of VAQTA™ alone or in combination with other routinely recommended pediatric vaccines. The most commonly reported complaints after 1 or both doses of VAQTA™ were similar to those reported among older children. VAQTA™ is contraindicated in persons with known hypersensitivity to any component of the vaccine.

Click the links provided to view the [supplemental FDA license approval information](#), [package insert](#) and [MMWR article](#). Please note, the CDC and AAP are currently reviewing data regarding the use of this vaccine in children. *No changes in hepatitis A vaccination policy have been made at this time.*

### References:

1. Prevention of Hepatitis A Through Active or Passive Immunization: Recommendations of the Advisory Committee on Immunization Practices by the Advisory Committee on Immunization Practices. Morbidity and Mortality Weekly Report. October 01, 1999; 48(RR12);1-37. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4812a1.htm>

estimates that more than 8,300 queries were made to the Louisiana Immunization Network for Kids Statewide (LINKS) concerning evacuated children. Although special provisions are being made to accept students without proof of immunization into their new schools, having an immunization record provides extra assurance that no delays will occur, and no immunizations will be repeated unnecessarily. For more information about computerized immunization registries, please contact CDC's Gary Urquhart at [gau5@cdc.gov](mailto:gau5@cdc.gov) or 404/639-8277.

➤ **Reconstruction of the 1918 Influenza Pandemic Virus**

CDC researchers and others have successfully reconstructed the Influenza virus that caused the 1918-19 flu pandemic, which killed as many as 50 million people worldwide. A report of their work, "Characterization of the Reconstructed 1918 Spanish Influenza Pandemic Virus," was published in the October 7 issue of *Science*. [Click here](#) to view a series of Questions and Answers describing this important research and related issues.

➤ **Colorado Department of Public and Environmental issue Plan for Avian Flu**

Health officials in CO recently unveiled a new 29-page draft Pandemic Influenza Plan, an annex to the Internal Emergency Response Plan of the Colorado Department of Public Health and Environment (CDPHE). The plan's purpose is to "reduce mortality and morbidity and minimize social disruption in Colorado by providing a guide for the CDPHE response to an influenza pandemic." The new plan outlines how the state would implement quarantine, vaccinate the public, and if necessary, suspend certain funerary laws to allow for the rapid burial of epidemic victims. The plan also outlines disease surveillance, improved communication, and laboratory procedures, and lists several executive orders that could be used in a pandemic flu outbreak. For example, orders could be used to authorize physician assistants and emergency medical technicians to practice outside their normal areas of expertise, or to authorize CDPHE to enforce isolation and quarantine. [Click here](#) to view the draft CO Pandemic Influenza Plan.

➤ **Summary Report Issued on the Symposium on Pandemic Influenza Research Meeting**

In April 2005, the Institute of Medicine (IOM) convened a symposium to discuss the current state of the art of research on pandemic influenza and to identify gaps in research. The meeting served as a first step of discussion towards a combined and coordinated research effort among Department of Health and Human Services agencies, other governmental agencies, international partners and the private sector. [View the IOM report](#).

## Upcoming Events

➤ **Environmental Public Health Impacts of Disasters: Hurricane Katrina**

October 20, 2005

Washington, DC (Event is free and open to the public) Web site: <http://www.iom.edu/event.asp?id=30195>

➤ **35th Anniversary IOM Annual Meeting: Pharmaceuticals in the 21st Century**

October 24, 2005

Washington, DC (Available via Web cast)

Web site: <http://www.iom.edu/event.asp?id=28870>

➤ **The Role of Consumers and Healthcare Professionals in Adverse Drug Event Reporting**

November 3-4, 2005

Washington, DC

Web site: <http://www.iom.edu/event.asp?id=29378>

➤ **18th Annual Infectious Diseases in Children Symposium**

November 19-20, 2005

New York City, NY

Web site: <http://www.slackinc.com/meetings/IDC/ny/>

### **Red Book Online to Spotlight Contaminated Food Products, Arboviruses, and More in November**

One of the special features of *Red Book Online* ([www.aapredbook.org](http://www.aapredbook.org)) is the regularly updated Spotlight Section selected by the *Red Book* editors. The Spotlight Sections feature timely and important sections within the *Red Book*, and for mid-November, Appendix VII, Prevention of Disease From Potentially Contaminated Food Products is featured. Quick links to this section and other related resources can be found on the *Red Book Online* home page.

Also found on the home page at [www.aapredbook.org](http://www.aapredbook.org), *Red Book Online's* Image of the Week feature is accessible by all visitors to the site. Upcoming selections of this popular feature in the second half of November will be Arboviruses (November 14), Clostridial Myonecrosis (Gas Gangrene) (November 21), and Pinworm Infection (*Enterobius vermicularis*) (November 28). In addition to these regular features, you can check *Red Book Online* often for important infectious disease and immunization news, updated resources, and errata notifications.

➤ **40th Annual National Immunization Conference (NIC)**

March 6-9, 2006

Atlanta, GA

The CDC is now seeking presenters for workshops at the 40th Annual NIC. Those wishing to present should [submit abstracts](#) of 300 words or less, detailing original work in 1 of 6 tracks: Adolescent and Adult Immunization, Epidemiology and Vaccine Safety, Health and Risk Communications, Immunization Information Systems, Programmatic Issues, or Policy and Legislation. Abstract submission deadline is Friday, November 4th, 2005. Participants may now [register to attend](#) the NIC. Special early-bird rates apply until January 13, 2006. For more information, contact the Conference Planning Team at [NIPNIC@cdc.gov](mailto:NIPNIC@cdc.gov) or 404/639-8225.

➤ **7th National Conference on Immunization Coalitions**

August 9-11, 2006

Denver, CO

For details, please contact Roberta Smith (Colorado Influenza and Pneumococcal Alert Coalition, Adult Immunizations) at 303-692-2332 or [roberta.smith@state.co.us](mailto:roberta.smith@state.co.us).

## Funding Opportunities

➤ **Health Research and Services Administration (HRSA) Funds Children's Special Healthcare Needs**

HRSA is now accepting agreements to fund state-wide, family-run centers. The centers are responsible for developing and disseminating needed healthcare and related information to families and providers. For more information, contact Diana Denboba at 301/443-9332 x2370 or [ddenboba@hrsa.gov](mailto:ddenboba@hrsa.gov). **Deadline: November 2, 2005**

➤ **Ronald McDonald House Charities Program Now Accepting Applications**

The Ronald McDonald House seeks to provide financial support to nonprofit programs that improve the health and well-being of children. The programs can address a funding gap and must have a long-term impact. [Click here](#) for information. **Deadline: 90 days prior to board meetings. Dates for 2006 have not yet been announced.**

## Resources

➤ **New Pages on CISP Web site Devoted to Increasing Adolescent Immunization**

Visit the [CISP Web site](#) for updated information on adolescent immunization schedules, adolescent vaccines in development, strategies to increase adolescent immunization coverage, and many other adolescent immunization resources.

➤ **[Updated List of New and Pending Vaccine Information Statements \(VISs\)](#)**

The National Immunization Program at the CDC has created a Web page noting new/pending VISs for several vaccines. By Federal law, all vaccine providers must give patients, or their parents or legal representatives, the appropriate VIS whenever a Vaccine Injury Compensation Program-covered vaccine is given.

➤ **Academy for Educational Development (AED) Offers Free Resources for Flu Season**

The AED is now offering media products about the flu that are not currently available from the CDC Web site. The materials include TV public service announcements (PSAs), radio PSAs, audio news releases and matte articles, and all can be adapted to fit the needs of your community. AED can also provide technical assistance on how best to adapt the materials for your needs. Materials are available in Spanish and English. For more information, e-mail Katherine Shrout at [kshrout@aed.org](mailto:kshrout@aed.org).

➤ **Data Resource Center: National Survey Findings Now Available Online**

The Child and Adolescent Health Measurement Initiative (CAHMI) released the Data Resource Center for Child and Adolescent Health. This resource is a free, easy-to-use web site that puts national, state, and regional survey findings right at your fingertips! The Web site provides: interactive data search tools, personalized technical help by email or telephone, information and examples to help you use data more effectively. The online resource is available [here](#).

➤ **UNICEF Releases Annual Report on Childhood Immunization Progress Across the Globe**

"Progress for Children: A Report Card on Immunization" is now available on the [UNICEF Web site](#). The report details each part of the world, stating the progress made or barriers faced by each area. Immunization rates are given along with diseases that pose the highest risk to different populations. The report concludes with strategies to reach Millennium Development Goals on time, as well as strategies to achieve long-term success in immunization coverage.

➤ **World Health Organization (WHO) Releases Summary of Influenza Activity, September 2004 - August 2005**

According to the WHO, Influenza activity was generally mild to moderate between September 2004 and August 2005. In the northern hemisphere, activity started in December 2004 in North America and increased rapidly in January 2005. In Europe, activity began in December 2004 and increased in January and February 2005. In general, activity started late and was low compared with the 2003-2004 influenza season in the northern hemisphere. In the southern hemisphere, activity started in April 2005 and increased in May in both Oceania and South America. The overall levels of activity in the southern hemisphere were similar to the 2004 season. [Click here](#) for a complete report.

[www.cispimmunize.org](http://www.cispimmunize.org)

*The Childhood Immunization Support Program is a cooperative agreement grant between the CDC and AAP.*



➤ **CDC Launches Avian Influenza Website**

[The Web site](#) is continuously updated and provides information specifically devoted to Avian Influenza (bird flu). The Web site now includes a fact sheet, a notice to travelers, and a link so that clinicians can sign up for e-mail updates about Avian Influenza.

***Featured Research Findings***

**Make Vaccinations Part of Your Patients'  
Back to School Shopping List This Year**

Daniel B. Fishbein, MD

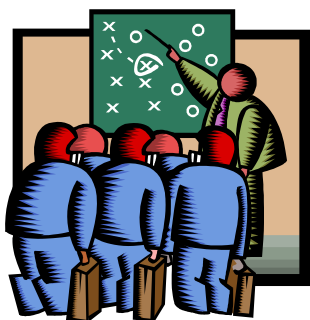
Before 2005, only 1 vaccine was routinely recommended for adolescents at the 11- to 12-year-old visit: tetanus and diphtheria toxoid (Td) booster. Three others (Hepatitis B, measles-mumps-rubella, and varicella) were recommended for adolescents not up-to-date. With the addition of two new FDA-licensed vaccines for meningitis and pertussis, plus recommendations of influenza and pneumococcal polysaccharide vaccines for some, children could soon receive up to 8 vaccines in their adolescent visit to the pediatrician.

The changes in vaccine schedule represent the changing epidemiology of diseases that pose risk to adolescents. While Hepatitis B was once considered the most significant vaccine-preventable threat to adolescent health, now pertussis and varicella pose 100 times the risk that Hepatitis B once did. Other diseases may soon be preventable by vaccine, including human papillomavirus (HPV), herpes simplex (HSV), cytomegalovirus (CMV), chlamydia and group B streptococci. These, along with vaccines to prevent human immunodeficiency virus (HIV) and tuberculosis, will likely be most effective when administered to adolescents.

The new vaccines add to the already over-crowded list of issues to address during the adolescent visit to the pediatrician. It becomes a challenge to integrate vaccines with the numerous other clinical preventive services recommended for adolescents. The use of clinical staff and Vaccine Information Statements (VIS) could help maximize the time available, but many challenges still exist. Prioritization of preventive services, with special attention to studies of the efficacy of recommended services, is recommended.

Further challenges include targeting the one-third of adolescents who have not made a preventive visit in the last year. Another challenge is maximizing the use of the Vaccines for Children program for uninsured and underinsured children, high school dropouts, or youth in correctional facilities. Recall reminder systems may be particularly helpful in creating a continuum of care for the adolescent and ensuring that children receive the proper preventive services during an annual adolescent visit.

For a copy of the article, [click here](#).



## Best Practices: Applying Management Analysis of Excellence to Immunization

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*“The authors applied business management tools to analyze and promote excellence and to evaluate differences between average and above average immunization performers in private practices. The authors conducted a pilot study of 10 private practices in Pennsylvania using tools common in management to assess practices’ organizational climate and managerial style. Authoritative and coaching styles of physician leaders were common to both groups. Managerial styles that emphasized higher levels of clarity and responsibility managerial styles were evident in the large practices; and rewards and flexibility styles were higher in the small above- average practices. The findings of this pilot study match results seen in high performers in other industries. It concludes that the authoritative style appears to have the most impact on performance. It has interesting implications for training/ behavior change to improve immunization rates, along with traditional medical interventions.”*

Immunization performance is a common measure of clinical practice success and performance. According to the National Immunization Survey, immunization completeness by two years of age varies from 57 to 89 percent among the states; Pennsylvania’s rate is 80.7% ± 5.3<sup>1</sup> The private sector plays an important role in immunization. In Pennsylvania, 87.2% ± 4.3 of children ages 19-35 months obtain immunization entirely from private providers.<sup>2</sup>

Assessment of immunization rates by practice reveals that immunization rates vary among practices. Factors contributing to variation in practice immunization rates include reminder/recall systems, missed opportunities, and community economic and racial composition. Use of reminder/recall systems and decreasing missed opportunities improves immunization rates, and many immunization programs promote these interventions.<sup>3,4,5</sup>

***Physician leadership is key in shaping the prevalent managerial style(s) and organizational climate...***

The Pennsylvania Educating Physicians in their Communities (EPIC) Immunization Education Program (IEP)<sup>6</sup> is a statewide partnership between the Pennsylvania Chapter, American Academy of Pediatrics (PA AAP); Pennsylvania Department of Health; Pennsylvania Academy of Family Physicians; and Pennsylvania Osteopathic Medical Association. The IEP provides continuing medical education/continuing education units (CME/CEU) immunization update programs and immunization rate assessments as part of the Pennsylvania Department of Health AFIX (Assessment, Feedback, Incentives, Exchange of Information) program at practice sites throughout Pennsylvania. IEP-trained physician or nurse practitioner presenters teamed with a practice manager and a public health immunization nurse provided 780 immunization update programs to 13,237 physicians and practice staff from January 1, 1997 to December 31, 2003. (The IEP is ongoing.) To enhance the IEP’s work, the authors used tools common in management analysis of excellence to evaluate a clinical practice’s structure and function regarding immunization.

The business world analyzes success differently. It asks, “What separates excellent organizations from those that are simply average?” and “What behavioral characteristics separate people who are outstanding performers from those who are competent, but mediocre?” There is extensive management literature on how to describe, measure, and predict stellar

performers and the environments that nurture them. The research, done across a variety of business sectors, suggests that these measures can apply to any organizational environment. Are they relevant to immunization? In measuring excellence in a way that is both reliable and valid, contemporary management tools differ in terminology but converge on essentials. The IEP sought help with applying a management approach to immunization and selected HayGroup, a large international human resources consulting company. HayGroup tools and terminology were employed in this study.

## CLIMATE AND STYLE

Three interrelated variables account for the greatest difference between mediocrity and excellence at the level of the individual and at the level of the organization:

- Organizational climate
- Managerial style
- Behavioral competencies

**Authoritative leaders  
mobilize people toward a  
vision...**

The current study dealt with the first two. Physician leadership is key in shaping the prevalent managerial style(s) and organizational climate in the practice setting, as evidenced by previous research about the positive impact of physician leadership on immunization rates.<sup>7</sup>

Organizational climate correlates with optimal performance characteristics: flexibility, responsibility, standards, rewards, clarity, and team commitment.

- *Flexibility* means acceptance of new ideas and minimizing unnecessary rules.
- *Responsibility* refers to employees' sense of responsibility to the organization.
- *Standards* means that challenging but obtainable goals are set and measured.
- *Rewards* refers to the employees' sense of accuracy about performance feedback and all types of compensation.
- *Clarity* concerns the sense employees have about the practice's values and how they contribute to them.
- *Team commitment* is the level of commitment to a common purpose—a sense of pride, providing the extra effort when needed, and loyalty to the practice.

Managerial/leadership styles—coercive, authoritative, affiliative, democratic, pacesetter, and coaching—affect the organizational climate:

- *Coercive* leaders want immediate compliance.
- *Authoritative* leaders mobilize people toward a vision. They provide a clear vision with explanation of the “whys” and are particularly good for new employees. The authoritative style has the strongest positive effect on organizational climate.
- *Affiliative* leaders create emotional bonds and harmony.
- *Democratic* leaders encourage participation and reach decisions by consensus.
- *Pacesetter* leaders expect excellence and self-direction. They lead by their own high standards of excellence.
- *Coaching* leaders develop people for the future. Their objective is long-term professional development of employees. Coaching works well with motivated employees.<sup>8</sup>

All managerial styles are effective in some situations. They may work less well or can be harmful in others. Successful leaders are skilled in several managerial styles. They are flexible. They do the right thing at the right time. Leadership training can teach people to analyze situations better and use the appropriate style.<sup>9</sup>

*A note on methods of this study:* A sample of 30 average or above-average practices was selected for the study. Assignment to the average or above-average group was based on a Clinic Assessment Software Application (CASA)<sup>®</sup> score of immunization up-to-dateness among two-year-olds for the 4:3:1:3:3 series (4 DTP/DTaP:3 Polio:1 Measles-containing (MMR):3 Hib:3 Hep B). The CASA scores were done between December 1, 2000, and August 1, 2001. Outliers with extremely low CASA rates were not used since these far-below-average practices might not have lessons relevant to the much larger group of average rate practices. Outliers at the high end were used because the authors wanted to know as much as possible about these star performers. Average was defined as a CASA rate of 60 to 85 percent of two-year-olds up-to-date. Above average was defined as 87 percent or higher of two-year-olds up-to-date. Large was defined as four or more physicians on staff; small was three or fewer physicians. The authors of the study made an effort to obtain geographic diversity and to recruit both pediatric and family practices.

Of the final 10 practices that agreed to participate, there were two small/average; two small/above-average; two

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large/average; and four large/above average. Three were urban, three suburban, three were in towns, and one was rural. Of these 10 practices, nine were pediatric and one was a family practice.

### MANAGERIAL STYLE FINDINGS

In both large and small practices, above-average immunization performers evidenced a greater number of dominant managerial styles. The above-average immunization performers demonstrated greater flexibility in having this larger repertoire of leadership resources at their disposal. Higher immunization performance in the private practice setting was characterized by a particular array of styles: clear, top-down styles such as the authoritative and coercive styles used in conjunction with other styles, rather than exclusively. Coaching was equally necessary for high performance and was used as a backup by both large and small above-average immunization performers.



### ORGANIZATIONAL CLIMATE FINDINGS

For the large practices, areas featuring the largest gaps between average and above-average measures of climate were in responsibility, standards, and clarity, in rank order.

Responsibility and clarity in above-average large practices were much higher than is the case with average large practices. The average practices' low responsibility scores can reflect a combination of a physician leader not delegating and/or employees who are unwilling or unable to take responsibility. This might reflect problems in staffing patterns, training, or supervision. Average practices can become more like the above-average practices by increasing the responsibility and clarity components of their organizational climate. Physician leaders must discuss with staff how to develop clear roles and how each specifically contributes to the practice's mission, create written protocols for preventive care, and then encourage staff to take initiative to meet these expectations.

***Responsibility and clarity in above-average large practices were much higher...***

For the small practice comparison, the largest differences between above-average and average practices were in flexibility and rewards, with the largest gap found in rewards. A problem with rewards scores might intuitively imply that salaries are inadequate. This is not necessarily the case. As has been found in other industries, while some respondents in the current research cited adequate or above-average financial compensation, they

also noted a lack of appreciation by others in the organization and a lack of specific, concrete feedback about how exactly they could improve. Appreciating staff and providing feedback tailored to specific roles in a practice in lieu of higher direct personnel expenditures would seem achievable by small practices.

The above-average small practice's organizational climate scores were higher in flexibility, indicating that they are better at minimizing unnecessary rules, have more decisive immediate managers, and that informal (as well as formal) norms have clear origins and are negotiable. The average small practices could benefit by adopting these ways of functioning.

The current study is limited by the small size of the cells used for comparison. Clear differences between above-average and average immunization performers were noted but did not reach statistical significance. The study's findings, however, mirror what the business literature describes about excellence in other sectors and are worth considering and researching further.

***Appreciating staff and providing feedback...would seem achievable by small practices.***

### CONCLUSIONS

Recent changes to the private practice environment challenge physicians in their efforts to provide high-quality care. Given these pressures, it is advantageous to profit from expertise in all disciplines to improve physicians' leadership abilities and the work environment for practice staff. In the current study, private practice was found to look like other industries and therefore could benefit from the management training and support that improve performance in other sectors.

**The above-average leaders in this study and elsewhere develop leadership throughout their organizations.**

The above-average leaders in this study and elsewhere develop leadership throughout their organizations. Studying leadership in a variety of situations, both the effective and the disastrous, is a common component of management education and one that might help physicians and staff in the average immunization-rate practices learn to be more like the above-average practices. The authoritative style has been shown to have the most positive impact on climate in other studies, and that was the case with the star immunization performers. Case studies illustrating optimum use of the authoritative style

in today's private practice environment, as well as alternative leadership styles useful in different types of situations, are examples of training elements relevant to the private practice setting. This study also indicates that immunization rates can be improved by focusing on practice leadership and team communication.

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The Childhood Immunization Support Program is a cooperative agreement grant between the CDC and AAP.

