population. The point prevalence of alcohol abuse and dependence of nearly 10% documented by CAGE suggests rates at least as high as the 12-month prevalence of 9.7% reported in the general population.

The findings in this report are subject to at least three limitations. First, no reliable data exist regarding the size of the worker/volunteer responder population; therefore, determining participation rates for the screening program was not possible. Second, persons who participated in the screening might have done so because they experienced (or perceived) greater exposures and/or symptoms; therefore, these results are not generalizable to all responders. Finally, the questionnaires, which had been validated by using psychiatric patients, were applied to nonpsychiatric patients; in addition, certain questionnaires had been validated primarily among women and might not be equally valid in a predominantly male population.

Preliminary findings regarding the possible cases of PTSD among these workers underscore the need for better tools to assess the mental health of responders to a disaster. For example, the popular PCL used in this screening program does not conform to established clinical diagnostic criteria for PTSD and might provide either over- or underestimates of posttraumatic psychopathology. In addition, the comparatively low rate of postdisaster depression identified by PHQ challenges assumptions about its sensitivity for detecting depression, especially because the proportion appears lower than that documented for the general population.

Approximately half of the participants met preestablished screening criteria for mental health problems. Despite substantial resources directed at the mental health effects of 9/11, only 3% of this population reported having accessed mental health treatment. Project Liberty, a crisis counseling program funded by the Federal Emergency Management Administration, offered interventions beyond crisis counseling to help persons who experienced persistent and disabling distress. In addition, the Public Health Service Workers Program, funded by the Substance Abuse and Mental Health Services Administration, has made limited funds available for the mental health treatment of this specific population through September 30, 2005. The mental health effects observed in this population suggest the need for further mental health screening, follow-up, and access to mental health services for WTC rescue and recovery workers and volunteers.

REFERENCES
10 available

Recommended Adult Immunization Schedule—United States, October 2004–September 2005

MMWR. 2004;53:Q1-Q4

CDC’s Advisory Committee on Immunization Practices (ACIP) annually reviews the recommended Adult Immunization Schedule to ensure that the schedule reflects current recommendations for the use of licensed vaccines. In June 2004, ACIP approved the Adult Immunization Schedule for October 2004–September 2005. This schedule has also been approved by the American Academy of Family Physicians and the American College of Obstetricians and Gynecologists.

Changes in the Schedule for October 2004–September 2005

The 2004–2005 schedule differs from the previous schedule as follows:

- Both figures now provide a separate row for each vaccine (FIGURE I and FIGURE 2).
- Health-care workers have been added to the figure that provides immunization recommendations by medical indications and other conditions (Figure 2).
- The special note regarding influenza vaccination of pregnant women reflects the revised ACIP recommendations that all pregnant women should receive influenza vaccination regardless of preexisting chronic conditions.

Health-care workers were added to the Adult Immunization Schedule in response to provider requests; this change should facilitate assessment of the vaccination status of healthcare workers and administration of needed vaccinations. In 2002, 38.4% of health-care workers reported influenza vaccination, and 62.3% reported having completed hepatitis B vaccination series (National Health Interview Survey, CDC, unpublished data, 2003). Influenza vaccination of health-care workers is an important preventive measure for persons at high risk for complications from influenza infection. Health-care workers involved in direct patient care are among the priority groups recommended to receive influenza vaccination for the 2004–05 influenza season, despite the vaccine shortage.

The Adult Immunization Schedule is available in English and Spanish at http://www.cdc.gov/nip/recs/adult-schedule.htm. General information about adult immunization, including recommendations concerning vaccination of persons with human immunodeficiency virus (HIV) and other immunosuppressive conditions, is available from state and local health departments and from the National Immunization Program at http://www.cdc.gov/nip. Vaccine information statements are available at http://www.cdc.gov/nip/publications/vis. ACIP statements for each recommended vaccine can be viewed, downloaded, and printed from CDC’s National Immunization Program at http://www.cdc.gov/nip/publications/acip-list.htm. Instructions for reporting adverse events after vaccination to the Vaccine Adverse Event Reporting System (VAERS) are available at http://www.vaers.org or by telephone, 800-822-7967.

REFERENCES
2 available

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(Reprinted) JAMA, January 5, 2005—Vol 293, No. 1 31
FIGURE 1. Recommended adult immunization schedule, by vaccine and age group—United States, October 2004–September 2005

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Age group (yrs)</th>
<th>19–49</th>
<th>50–64</th>
<th>≥65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetanus, Diphtheria (Td)*</td>
<td>1 dose booster every 10 years¹</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza</td>
<td>1 dose annually²</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal (polysaccharide)</td>
<td>1 dose ³, 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B*</td>
<td>3 doses (0, 1–2, 4–6 mos)⁵</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis A*</td>
<td>2 doses (0, 6–12 mos)⁶</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles, mumps, rubella (MMR)*</td>
<td>1 or 2 doses⁷</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella*</td>
<td>2 doses (0, 4–8 wks)⁸</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meningococcal (polysaccharide)</td>
<td>1 dose⁹</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- For all persons in this group
- For persons lacking documentation of vaccination or evidence of disease
- For persons at risk (i.e., with medical/exposure indications)

* Covered by the Vaccine Injury Compensation Program.

1. Tetanus and diphtheria (Td). Adults, including pregnant women with an uncertain history of a complete primary vaccination series, should receive a primary series of Td. A primary series for adults is 3 doses; administer the first 2 doses at least 4 weeks apart and the 3rd dose 6–12 months after the second. Administer 1 dose if the person received the primary series and if the last vaccination was received ≥10 years previously. Consult recommendations for administering Td as prophylaxis in wound management (see MMWR 1991;40[No. RR-10]). The American College of Physicians Task Force on Adult Immunization supports a second option for Td use in adults: a single Td booster at age 50 years for persons who have completed the full pediatric series, including the teenage/young adult booster.

2. Influenza vaccination. The Advisory Committee on Immunization Practices (ACIP) recommends inactivated influenza vaccination for the following indications, when vaccine is available: Medical indications: chronic disorders of the cardiovascular or pulmonary systems, including asthma; chronic metabolic diseases, including diabetes mellitus, renal dysfunction, hemoglobinopathies, or immunosuppression (including immunosuppression caused by medications or by human immunodeficiency virus [HIV]); and pregnancy during the influenza season. Occupational indications: healthcare workers and employees of long-term-care and assisted living facilities. Other indications: residents of nursing homes and other long-term-care facilities; persons likely to transmit influenza to persons at high risk (i.e., in-home caregivers to persons with medical indications, household/close contacts and out-of-home caregivers of children aged 0–23 months, household members and caregivers of elderly persons and adults with high-risk conditions); and anyone who wishes to be vaccinated. For healthy persons aged 5–49 years without high-risk conditions who are not contacts of severely immunocompromised persons in special care units, either the inactivated vaccine or the intranasally administered influenza vaccine (Flumist®) may be administered (see MMWR 2004;53[No. RR-6]). Note: Because of the vaccine shortage for the 2004–05 influenza season, CDC has recommended that vaccination be restricted to the following priority groups, which are considered to be of equal importance: all children aged 6–23 months; adults aged ≥65 years; persons aged 2–64 years with underlying chronic medical conditions; all women who will be pregnant during the influenza season; residents of nursing homes and long-term-care facilities; children aged 6 months–18 years on chronic aspirin therapy; health-care workers involved in direct patient care; and out-of-home caregivers and household contacts of children aged <6 months. For the 2004–05 season, intranasally administered, live, attenuated influenza vaccine, if available, should be encouraged for healthy persons who are aged 5–49 years and are not pregnant, including health-care workers (except those who care for severely immunocompromised patients in special care units) and persons caring for children aged <6 months (see MMWR 2004;53:923–4). 3. Pneumococcal polysaccharide vaccination. Medical indications: chronic disorders of the pulmonary system (excluding asthma); cardiovascular diseases; diabetes mellitus; chronic liver diseases, including liver disease as
**FIGURE 2.** Recommended adult immunization schedule, by vaccine and medical and other indications — United States, October 2004–September 2005

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Pregnancy</th>
<th>Congenital immunodefi ciency, cochlear implants, leukemia, lymphoma, generalized malignancy, therapy with alkylating agents, antimitabolites, CSF leaks, radiation, or large amounts of corticosteroids</th>
<th>Renal failure/ end-stage renal disease, recipients of hemodialysis or clotting factor concentrates</th>
<th>Asplenia (including elective splenectomy and terminal complement component deficiencies)</th>
<th>HIV² infection</th>
<th>Health-care workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetanus, Diphtheria (Td)¹</td>
<td>A, B</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza²</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal (polysaccharide)³,⁴</td>
<td>B</td>
<td>D</td>
<td>D, E, F</td>
<td>D, G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B V</td>
<td></td>
<td></td>
<td>H</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis A²</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles, mumps, rubella (MMR)⁷</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella⁸</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* For all persons in this group
* For persons lacking documentation of vaccination or evidence of disease
* For persons at risk (i.e., with medical/exposure indications)
* Contraindicated

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**Special Notes for Medical and Other Indications**

A. Although chronic liver disease and alcoholism are not indications for influenza vaccination, administer 1 dose annually if the patient is aged ≥50 years, has other indications for influenza vaccine, or requests vaccination.

B. Asthma is an indication for influenza vaccination but not for pneumococcal vaccination.

C. No data exist specifically on the risk for severe or complicated influenza infections among persons with asplenia. However, influenza is a risk factor for secondary bacterial infections that can cause severe disease among persons with asplenia.

D. For persons aged <65 years, revaccinate once after ≥5 years have elapsed since initial vaccination.

E. Administer meningococcal vaccine and consider Haemophilus influenzae type b vaccine.

F. For persons undergoing elective splenectomy, vaccinate ≥2 weeks before surgery.

G. Vaccinate as soon after diagnosis as possible.

H. For hemodialysis patients, use special formulation of vaccine (40 µg/mL) or two 20 µg/mL doses administered at one body site. Vaccinate early in the course of renal disease. Assess antibody titers to hepatitis B surface antigen (anti-HB) levels annually. Administer additional doses if anti-HB levels decline to <10 mIU/mL.

I. For all persons with chronic liver disease.

J. Withhold MMR or other measles-containing vaccines from HIV-infected persons with evidence of severe immunosuppression (see MMWR 1998;47 [No. RR-8]:21–2 and MMWR 2002;51[No. RR-2]:22–4).

K. Persons with impaired humoral immunity but intact cellular immunity may be vaccinated (see MMWR 1999;48[No. RR-6]).

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4. **Revaccination with pneumococcal polysaccharide vaccine.** One-time revaccination after 5 years for persons with chronic renal failure or nephrotic syndrome; functional or anatomic asplenia (e.g., sickle cell disease or splenectomy); immunosuppressive conditions (e.g., congenital immunodeficiency, HIV infection, leukemia, lymphoma, multiple myeloma, Hodgkin's disease, generalized malignancy, or organ or bone marrow transplantation); chemotherapy with alkylating agents, antimitabolites, or long-term systemic corticosteroids; or cochlear implants. Geographic/other indications: Alaska Natives and certain American Indian populations. Other indications: residents of nursing homes and other long-term-care facilities (see MMWR 1997;46[No. RR-8] and MMWR 2003;52:739–40).

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5. Hepatitis B vaccination. Medical indications: hemodialysis patients or patients who receive clotting factor concentrates. Occupational indications: health-care workers and public-safety workers who have exposure to blood in the workplace; and persons in training in schools of medicine, dentistry, nursing, laboratory technology, and other allied health professions. Behavioral indications: persons with one sexual partner during the previous 6 months; persons with a recently acquired sexually transmitted disease (STD); all clients in STD clinics; and men who have sex with men. Other indications: household contacts and sex partners of persons with chronic hepatitis B virus (HBV) infection; clients and staff members of institutions for the developmentally disabled; residents of correctional facilities; or international travelers who will be in countries with high or intermediate prevalence of chronic HBV infection for >6 months (http://www.cdc.gov/travel/diseases/hbv.htm) (see MMWR 1991;40[No. RR-13]).

6. Hepatitis A vaccination. Medical indications: persons with clotting factor disorders or chronic liver disease. Behavioral indications: men who have sex with men or users of illegal drugs. Occupational indications: persons working with hepatitis A virus (HAV)-infected primates or with HAV in a research laboratory setting. Other indications: persons traveling to or working in countries that have high or intermediate endemicity of hepatitis A. If the combined Hepatitis A and Hepatitis B vaccine is used, administer 3 doses at 0, 1, and 6 months (http://www.cdc.gov/travel/diseases/hav.htm) (see MMWR 1999;48[No. RR-12]).

7. Measles, mumps, rubella (MMR) vaccination. Measles component: adults born before 1957 can be considered immune to measles. Adults born during or after 1957 should receive ≥1 dose of MMR unless they have a medical contraindication, documentation of ≥1 dose, or other acceptable evidence of immunity. A second dose of MMR is recommended for adults who 1) were recently exposed to measles or in an outbreak setting, 2) were previously vaccinated with killed measles vaccine, 3) were vaccinated with an unknown vaccine during 1963–1967, 4) are students in postsecondary educational institutions, 5) work in health-care facilities, or 6) plan to travel internationally. Mumps component: 1 dose of MMR vaccine should be adequate for protection. Rubella component: Administer 1 dose of MMR vaccine to women whose rubella vaccination history is unreliable and counsel women to avoid becoming pregnant for 4 weeks after vaccination. For women of childbearing age, regardless of birth year, routinely determine rubella immunity and counsel women regarding congenital rubella syndrome. Do not vaccinate pregnant women or those planning to become pregnant during the next 4 weeks. For women who are pregnant and susceptible, vaccinate as early in the postpartum period as possible (see MMWR 1998;47[No. RR-8] and MMWR 2001;50:1117).

8. Varicella vaccination. Recommended for all persons lacking a reliable clinical history of varicella infection or serologic evidence of varicella zoster virus (VZV) infection who might be at high risk for exposure or transmission. This includes health-care workers and family contacts of immuno-compromised persons; persons who live or work in environments where transmission is likely (e.g., teachers of young children, child care employees, and residents and staff members in institutional settings); persons who live or work in environments where VZV transmission can occur (e.g., college students, inmates, and staff members of correctional institutions, and military personnel); adolescents aged 11–18 years and adults living in households with children; women who are not pregnant but who might become pregnant; and international travelers who are not immune to infection. Note: Approximately 95% of U.S.-born adults are immune to VZV. Do not vaccinate pregnant women or those planning to become pregnant during the next 4 weeks. For women who are pregnant and susceptible, vaccinate as early in the postpartum period as possible (see MMWR 1999;48[No. RR-6]).

9. Meningococcal vaccine (quadrivalent polysaccharide for serogroups A, C, Y, and W 135). Medical indications: adults with terminal complement component deficiencies or those with anatomic or functional asperia. Other indications: travelers to countries in which meningococcal disease is hyperendemic or epidemic (e.g., the “meningitis belt” of sub-Saharan Africa and Mexico, Saudi Arabia). Vaccine administration after 3–5 years might be indicated for persons at high risk for infection (e.g., persons residing in areas where disease is epidemic). Counsel college freshmen, especially those who live in dormitories, regarding meningococcal disease and availability of the vaccine to enable them to make an educated decision about receiving the vaccine (see MMWR 2000;49[No. RR-7]). The American Academy of Family Physicians recommends that colleges should take the lead on providing education on meningococcal infection and availability of vaccination and offer it to students who are interested. Physicians need not initiate discussion of meningococcal quadrivalent polysaccharide vaccine as part of routine medical care.