The Vaccine Adverse Event Reporting System (VAERS) form Version 2.0 (proposed)

Tom Shimabukuro, MD, MPH, MBA

Immunization Safety Office (ISO) Division of Healthcare Quality Promotion National Center for Emerging and Zoonotic Infectious Diseases Centers for Disease Control and Prevention (CDC)

National Vaccine Advisory Committee (NVAC) September 9, 2014



National Center for Emerging and Zoonotic Infectious Diseases Division of Healthcare Quality Promotion – Immunization Safety Office



Background on VAERS
VAERS 2.0 form (proposed)
Activities and next steps

Vaccine Adverse Event Reporting System (VAERS)

National spontaneous reporting system for adverse events after US-licensed vaccines

- In recent years, received around 30,000 U.S. reports annually
- Accepts reports from healthcare providers, manufacturers and the public
- Signs/symptoms of adverse event coded (using MedDRA terms) and entered into database
- Jointly administered by CDC and FDA

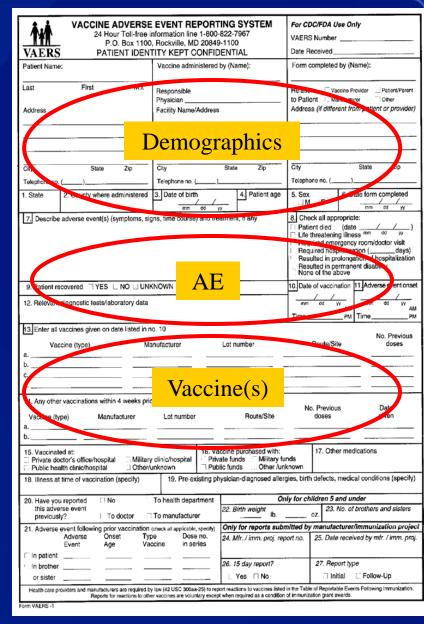
Authorized by National Childhood Vaccine Injury Act of 1986

Submitting a VAERS report (currently)

- Secure online submission (~30% of reports in recent years, but has plateaued)
- Mailed written hardcopy of paper form
- Faxed hardcopy
- Via telephone through a VAERS customer service representative

VAERS-1 report form*

- Paper form; must be completed by hand or using a typewriter
- Forms are mailed or faxed to VAERS contractor
- Requires manual receipt, processing and data entry procedures
- Hardcopies scanned and uploaded to the VAERS image database
- Resource intensive to manage paper reporting



*Online reporting form has same fields in a different presentation

Objectives for the VAERS 2.0 form (proposed)

- **Create a fillable/savable electronic reporting form**
- Update data fields to address current vaccine safety information needs and changes in vaccination practices over time
- Modernize the appearance and format of the VAERS form
- Modernize reporting procedures (implement electronic document upload capability with the VAERS 2.0 form)
- Ensure data collected on the VAERS 2.0 form allows for comparisons to be made with older data (i.e., historical comparisons between VAERS-1 and VAERS 2.0 data)

Why revise the VAERS form?

- Some fields on the current VAERS form (VAERS-1) have limited public health and/or regulatory value
 - Other important information isn't being collected
- Some fields are no longer relevant due to changes in the immunization program
- The language in some fields is confusing and needs clarification
- Fields used in paper reporting and for manual processing will no longer be necessary (e.g., manufacturer fields after the transition to the the ICH E2B(R3) message standard)
- Federal advisory committees and other stakeholders have expressed interest in collecting information on pregnancy status, race and ethnicity

Why revise the VAERS form? (cont.)

- Handwritten and mailed/faxed copies of paper reports is an inefficient way to conduct vaccine safety surveillance
- Paperless reporting using an electronic form would
 - Eliminate most manual processing and much data entry
 - Mitigate problems with poor handwriting and non-standard reporting
 - Take advantage of smart features (drop down menus, check boxes, pop-up instructions/reminders, logic checks)
 - Allow for standardized data elements (dates and times)
 - Address the complaint of getting "timed out" on the online reporting tool
- Manufacturers will be transiting to fully electronic reporting using the ICH E2B(R3) message standard

VAERS 2.0 form development

Actions that have already occurred

- Initial VAERS 2.0 development by CDC, FDA and VAERS contractor staff
- Internal (CDC, FDA and VAERS contractor) review and revision; review and revision is an ongoing activity
- Initial external review by immunization partners (CDC immunization program, NVPO, HRSA, DoD, ACIP liaison representatives, state immunization program officials, other partners)
- Cognitive interviews with potential reporters (physicians, nurses, pharmacist, parents, patients)
- Major revisions based on results of cognitive interviews
- Presented to internal and selected external partners (CDC immunization program, state Vaccine Safety Coordinators, others)
- Presented to the Federal Immunization Safety Task Force (ISTF)
- Follow up interviews with a sample of individuals that completed cognitive interviews to test the revised form
- Presented to the Advisory Commission on Childhood Vaccines (ACCV)

VAERS 2.0 electronic form reporting (proposed)

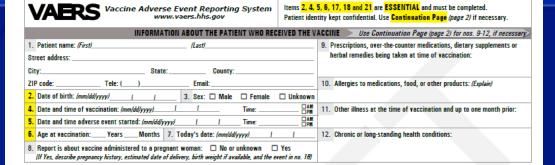
- **1.** Reporter downloads the VAERS 2.0 form from the VAERS website
- 2. Reporter completes a VAERS 2.0 form on a computer (form is a fillable/savable PDF document)
- 3. Reporter saves the VAERS 2.0 report as an electronic document in a secure environment per instructions
- 4. Reporter uploads saved VAERS 2.0 report to the VAERS contractor through the VAERS website
- 5. VAERS contractor electronically extracts the data from the VAERS 2.0 report into the VAERS database (also reviews, redacts and performs Q&A on data)
- 6. VAERS contractor generates an individual report for the VAERS image database

VAERS-1 form (current)

www.vaers.hhs.gov/resources/v aers_form.pdf

WEBSITE: www	.vaers.hhs.gov E-MA	IL: info@vaers.org	FAX: 1-877-721-0366			
VACCINE ADVERSE EVENT REPORTING SYSTEM 24 Hour Toll-Free Information 1-800-822-7967			For CDC/FDA Use Only VAERS Number			
VAERS P.O. Box 1100, Rockville, MD 20849-1100 PATIENT IDENTITY KEPT CONFIDENTIAL		Date Received				
Patient Name:	Vaccine administered by (Name):		Form completed by (Name):			
Last First M.I. Address	Responsible Physician Facility Name/Addres	s	Relation Vaccine Prov to Patient Manufacture Address (if different from p			
City State Zip Telephone no. ()	City Telephone no. ()	State Zip	Telephone no. ()	State Zip		
1. State 2. County where administered	3. Date of birth	4. Patient age		form completed mm dd yy		
7. Describe adverse events(s) (symptoms, signs, time course) and treatment, if any			Check all appropriate: Patient died (date mm dd yy) Life threatening illness Required emergency room/doctor visit Required hospitalization (
9. Patient recovered YES NO UNK	NOWN		10. Date of vaccination 11	Adverse event onset		
12. Relevant diagnostic tests/laboratory data			/ 	mm dd yy AM		
13. Enter all vaccines given on date listed in no. 10 Vaccine (type) Manufacturer Lot number a. b. c.		Lot number	No. Previous Route/Site Doses			
d. 14. Any other vaccinations within 4 weeks prior to t	he date listed in no. 10					
Vaccine (type) Manufacturer	Lot number	Route/Site	No. Previous doses	Date given		
ab	clinic/hospital Priva nknown Pub	ccine purchased with: ate funds				
20. Have you reported No	To health department	Oni	y for children 5 and under			
this adverse event	is adverse event 22. Birth weight 23. No. of brothers and sist		thers and sisters			
21. Adverse event following prior vaccination (check		lb.	oz. ted by manufacturer/immuni	ization project		
Adverse Onset Typ Event Age Vac		24. Mfr./imm. proj. report i				
In patient In brother or sister		26. 15 day report? □ Yes □ No	27. Report type □ Initial □	Follow-Up		
Health care providers and manufacturers are required by	(law (/2 LISC 300aa_25) to ron		_			
Reports for reactions to other vaccines are Form VAERS-1 (FDA)	voluntary except when required	as a condition of immunization	grant awards.			

VAERS 2.0 form (proposed)



INFORMATION ABOUT THE PERSON COMPLETING THIS FORM		INFORMATION ABOUT FACILITY WHERE VACCINE WAS GIVEN				
13. Form completed by: (Name)		15. Facility/clinic name:		16. Type of facility:		
Relation to patient: Healthcare professional/staff Patient (yourself) Parent/guardian/caregiver Other:				Doctor's office or hospital		
		Fax: ()		Pharmacy or drug store		
Street address:		□ Check if same as no. 1	Street address:	□ Check if same as no. 13	U Workplace clinic	
	State:	ZIP code:	City:		Public health clinic	
City:		_ ZIP code			Nursing home or senior living facility	
Tele: ()Email:		State: ZIP code:		School/student health clinic		
14. Best doctor/healthcare Name: professional to contact about the patient: Tele: () Ext:		Tele: ()		Other:		
		Ext:	Email:		🗆 Unknown	

17. Enter all vaccines given on date listed in no. 4: /	IES WERE GIVEN? WHAT HAPPENED TO			nuation i age	page 2/10/103.17/13,		
Vaccine (type and brand name)	Manufacturer		<i>given)</i> number	Route	Body site	Dose n in serie	
Vaccine (type and brand name)	Manufacturer	LUL	number	noute	Douy Site	III SCIR	
18. Describe event(s), treatment and outcome(s), if	any: (symptoms, signs, time course, etc.,)		21. Result	or outcome of e	vent: (Check all that apply	1	
_			Doctor o	or other healthc	are professional office/o	linic visit	
			Emerger	ncy room or eme	ergency department visi	t	
				ization: Number name:	r of days <i>(if know</i>	n)	
			City:		State:		
					hospitalization xisting hospitalization)		
			Life thre	atening illness			
19. Medical tests and laboratory results related to event(s): (Include dates)		🗆 Disabilit	Disability or permanent damage				
			Patient	died: Date of de	ath //	_(mm/dd/y	
			Congeni	tal anomaly or I	birth defect		
20. Patient has recovered from event: 🗆 Yes 🛛 [No Unknown		None of	the above			
	ADDITIONAL INFOR	MATION	> Use Conti	inuation Page	(page 2) for nos. 22-23,	if neces	
22. Any other vaccines received within one month p		-				Dose	
Vaccine (type and brand name)	Manufacturer	Lot	number	Route	Body site	in ser	
23. Has the patient ever had an adverse event follo	wing any previous vaccine: (If yes, describe an	d include patient i	age, vaccination d	ates, and vaccine	type and brand name)		
No or unknown Yes							
24. Patient's race: American Indian or Alasi (Check all that apply) White		Black or Africa Other:	an American	🗆 Nati	ve Hawaiian or Other Pa	cific Isla	
25. Patient's ethnicity 🗆 Hispanic or Latino 🛛 🛛	🛛 Not Hispanic or Latino 🛛 🗆 Unknown	26. Immunizat	tion project: <i>(Hea</i>	lth Dept use only,	1		
FOR U.S. M	ILITARY/DEPT OF DEFENSE (DoD) RELAT	ED REPORTS	(Complete only i	f annlicable)			
	Reserve National Guard Other:				t Military/DoD site: 🗖	Yes 🗆	

Use Continuation Page (page 2) if necessary.

FORM FDA VAERS-2.0 (1/15)

Page 1 of 2

Next steps

- **1.** Present the VAERS 2.0 form to NVAC and ACIP
- 2. Create "smart" electronic form
- **3.** Computer test form with potential reporters
- 4. Public comment solicitation through Federal Register
- 5. Make final revisions based on computer testing results and comments
- 6. Develop the platform to accept electronic VAERS 2.0 submissions and update the online reporting tool
- 7. Implement the VAERS 2.0 form
- 8. Evaluate completeness and quality of VAERS data (pre-post comparison)



Centers for Disease Control and Prevention Atlanta, GA

National Center for Emerging and Zoonotic Infectious Diseases



Division of Healthcare Quality Promotion – Immunization Safety Office

Thank You

For more information please contact Centers for Disease Control and Prevention 1600 Clifton Road NE, Atlanta, GA 30333 Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348 E-mail: cdcinfo@cdc.gov Web: www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



National Center for Emerging and Zoonotic Infectious Diseases Division of Healthcare Quality Promotion – Immunization Safety Office