

Figure 2: Contributors to disease prevention through vaccine development and immunization¹

Activity	Contributors												
	International Agency Collaborators	Federal Health Agencies	State Health Agencies	Federal/ State Social Welfare and Education Agencies	Local/ Municipal Agencies	Researchers (Academic)	*Newer* R&D Biotechnology Companies	*Traditional* Pharmaceutical Manufacturers	Health Care Providers	Health Care Payers	Public/ Professional Interest Groups	Vaccine Recipients	Advisory Groups
Surveillance	✓	✓	✓		✓	✓			✓				✓
Vaccine Research	✓	✓	✓ ²			✓	✓	✓	✓				✓
Vaccine Development	✓	✓	✓ ²			✓ ²	✓	✓					✓
Safety and Efficacy Testing	✓	✓	✓ ²			✓	✓	✓	✓		✓	✓	✓
Licensing	✓	✓ ³	✓				✓	✓					✓
Production/ Manufacturing			✓ ⁴				✓ ⁵	✓					✓
Purchase/ Procurement	✓	✓	✓	✓	✓				✓	✓			✓
Distribution	✓	✓	✓	✓	✓			✓		✓			✓
Public/Provider Education and Outreach	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓
Vaccination	✓	✓	✓	✓	✓				✓		✓	✓	✓
Adverse Events Surveillance	✓	✓	✓	✓	✓	✓	✓ ⁵	✓	✓		✓	✓	✓

¹A check-mark (✓) signifies involvement in the activity.

²Limited involvement.

³The Food and Drug Administration grants product and manufacturing establishment licenses; product sponsors, usually vaccine companies, apply for licensure.

⁴Limited-volume production.

⁵Very few of the "newer" biotech companies have requested licensure for vaccine products.