



## HISTORY OF INFLUENZA VACCINE COMPONENTS & CORRESPONDING CIRCULATING INFLUENZA STRAINS

<u>Year</u>	<u>Vaccine Components</u>	<u>Circulating Strains</u>
<b>1989-90</b>		2777 (99.7%) Type A 99% type A (H3N2) 17 type A (H1N1) 8 (0.3%) Type B [MMWR 39 (10); (157-159)]
<b>1990-91</b>	A/Taiwan/1/86-like (H1N1) A/Shanghai/6/89 (H3N2) B/Yamagata/16/88-like [MMWR 39(27); 469]	7% of 2500+ isolates Type A 64 (54%) type A (H3N2) 54 (46%) type A (H1N1) 93% of 2500+ isolates Type B [MMWR 09 140; 231-233, 239-240]
<b>1991-92</b>	A/Taiwan/1/86-like (H1N1) A/Beijing/353/89-like (H3N2) B/Panama/45/90-like [MMWR 40(41); 709-712] [MMWR 40(14); 231-233, 239-240]	5861 (99%) Type A 81% type A 19% type A (H1N1) [MMWR 41(18); 315-317, 323]
<b>1992-93</b>	A/Texas/36/91-like (H1N1) A/Beijing/353/89-like (H3N2) B/Panama/45/90-like [MMWR 41(18); 315-317, 323]	1166 (27%) Type A 569 (89%) type A (H3N2) 71 (11%) type A (H1N1) 3086 (73%) Type B [MMWR 42(20); 385-387]
<b>1993-94</b>	A/Texas/36/91-like (H1N1) A/Beijing/32/92-like (H3N2) B/Panama/45/90-like [MMWR 42(RR-6); 4]	3959 (99.9%) Type A 1899 subtyped; 1880 (99%) type A (H3N2) 4 (0.1%) Type B [MMWR 43(10); 179-183]
<b>1994-95</b>	A/Texas/36/91-like (H1N1) A/Shangdong/9/93-like (H3N2) B/Panama/45/90-like [MMWR 43(10); 179-183]	2554 (78%) Type A 1318 (99%) type A (H3N2) 19 (1%) type A (H1N1) 769 (22%) Type B [MMWR 44(15); 292-295]
<b>1995-96</b>	A/Texas/36/91-like (H1N1) A/Johannesburg/33/94-like (H3N2) B/Beijing/184/93-like [MMWR 44(15); 292-295]	2925 (99%) Type A 1188 (66%) type A (H1N1) 619 (34%) type A (H3N2) 40 (1%) Type B [MMWR 45(06); 134-136]



<b>Year</b>	<b>Vaccine Components</b>	<b>Circulating Strains</b>
<b>1996-97</b>	A/Texas/36/91-like (H1N1) A/Wuhan/359/95-like (H3N2) B/Beijing/184/93-like [MMWR 45 (RR-5); 3-4]	4714 (93%) Type A 1866 (100%) type A (H3N2) 336 (7%) Type B [MMWR 46(08); 173-176]
<b>1997-98</b>	A/Bayern/07/95-like (H1N1) A/Wuhan/359/95-like (H3N2) B/Beijing/184/93-like [MMWR 46 (RR-9); 3-4]	11439 (99.7%) Type A 2793 (99.8%) type A (H3N2) 6 (0.2%) type A (H1N1) 32 (0.3%) Type B [MMWR 47(140;280-284)]
<b>1998-99</b>	A/Beijing/262/95-like (H1N1) A/Sidney/5/95-like (H3N2) B/Beijing/184/93-like	10041 (77%) Type A 2481 (99%) type A (H3N2) 20 (1%) type A (H1N1) 2952 (23%) Type B [MMWR 48(18); 374-378]
<b>1999-00</b>	A/Beijing/262/95-like (H1N1) A/Sidney/5/97-like (H3N2) B/Beijing/184-93-like	13561 (99.5%) Type A 3622 (97%) type A (H3N2) 120 (3%) type A (H1N1) 62 (0.5%) Type B [MMWR 49(17); 375-381]
<b>2000-01</b>	A/New Caledonia/20/99-like (H1N1) A/Panama/2007/99-like (H3N2) B/Yamanashi/166/98-like	5337 (54%) Type A 2061 (97%) type A (H1N1) 66 (3%) type A (H3N2) 4625 (46%) Type B [MMWR 50(22); 466-470]
<b>2001-02</b>	A/New Caledonia/20/99-like (H1N1) A/Moscow/10/99-like (H3N2) B/Sichuan/379/99-like	13,706 (87%) Type A 4,420 (98%) type A (H3N2) 87 (2%) type A (H1N2) 1,965 (13%) Type B [MMWR 51 (23);503-506]
<b>2002-2003</b>	A/New Caledonia/20/99-like (H1N1) A/Moscow/10/99-like (H3N2) B/Hong Kong/330/01	6,324 (57%) Type A 2,534 (75%) type A (H1N2) 847 (25%) type A (H3N2) 4,703 (43%) Type B [MMWR 52(22);516-521]
<b>2003-2004</b>	A/New Caledonia/20/99-like (H1N1) A/Moscow/10/99-like (H3N2) B/Hong Kong/330/01	24,393 (99.0%) Type A 7,189 (99.9%) type A (H3N2) 2 (0.1%) type A (H1N2) 249 (1.0%) Type B [MMWR 53(25);547-552]



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<b>2004-2005</b>	A/New Caledonia/20/99-like (H1N1) A/Fujian/411/2002-like (H3N2) B/Shanghai/361/2002	17,750 (75.4%) Type A 5,801 (99.7%) type A (H3N2) 18 (0.3%) type A (H1N2) 5,799 (24.6%) Type B [MMWR 54(25);631-634]
<b>2005-2006</b>	A/New Caledonia/20/99(H1N1) A/California/7/2004-like (H3N2) B/Shanghai/361/2002	14,093 (80.9%) Type A 5,231 (92.4%) type A (H3N2) 430 (7.6%) type A (H1N1) 3,321 (19.1%) Type B [MMWR 55(23);648-653]
<b>2006-2007</b>	A/New Caledonia/20/1999 (H1N1) A/Wisconsin/67/2005 (H3N2) B/Malaysia/2506/2004	18,392 (79.3%) Type A 3,872 (63.5%) type A (H1N1) 2,230 (36.5%) type A (H3N2) 4,789 (20.7%) Type B
<b>2007-2008</b>	A/Solomon Islands/3/2006-like (H1N1) A/Wisconsin/67/2005-like (H3N2) B/Malaysia/2506/2004-like	28,263 (71%) Type A 2,175 (26%) type A (H1) 6,115 (74%) type A (H3) 11,564 (29%) Type B
<b>2008-2009</b>	A/Brisbane/59/2007 (H1N1)-like A/Brisbane/10/2007 (H3N2)-like B/Florida/4/2006-like	18,229 (89.9%) Type A 6,692 (36.7%) type A (H1) 750 (4.7%) type A (H3) 14 (0.08%) type A (pH1N1) 9,619 (47.4%) Type B
<b>Summer 2009</b>		60,765 (97.4%) Type A 1,657 (2.7%) type A (H1) 3,487 (5.7%) type A (H3) 41,969 (69.1%) type A (pH1N1) 1,651 (2.6%) Type B
<b>2009-2010</b>	A/Brisbane/59/2007 (H1N1)-like A/Brisbane/10/2007 (H3N2)-like B/Brisbane/60/2008-like A/California/07/2009 (H1N1)-like	80,951 (99.75%) Type A 29 (0.04%) type A (H1) 52 (0.06%) type A (H3) 61,332 (75.8%) type A (pH1N1) 228 (0.285%) Type B
<b>2010-2011</b>	A/California/7/2009 (H1N1)-like A/Perth/16/2009 (H3N2)-like B/Brisbane/60/2008-like	40,282 (74%) Type A 17,599 (62%) type A (H3) 10,946 (38%) type A (pH1N1) 13,944 (26%) Type B



<b>Year</b>	<b>Vaccine Components</b>	<b>Circulating Strains</b>
<b>2011-2012</b>	A/California/7/2009-like (H1N1) A/Perth/16/2009-like (H3N2) B/Brisbane/60/2008-like	19,285 (86%) Type A 11,002 (74%) type A (H3) 3,966 (26%) type A (pH1N1) 3,132 (14%) Type B
<b>2012-2013</b>	A/California/7/2009-like (pH1N1) A/Victoria/361/2011-like (H3N2)  B/Wisconsin/1/2010-like	1,576 (64%) Type A 1,324 (84%) type A (H3) (2 type A H3N2v) 252 (16%) type A (pH1N1) 876 (36%) Type B
<b>2013-2014</b>	A/California/7/2009-like (pH1N1) A/Victoria/361/2011-like (H3N2) B/Massachusetts/2/2012-like  B/Brisbane/60/2008-like virus (in quadrivalent)	76,727 (87.4%) Type A 28,323 (90.3%) type A (pH1N1) 3,030 (9.7%) type A (H3) (1 type A H3N2v) 6,743 (12.6%)
<b>2014-2015</b>	A/California/7/2009-like (pH1N1) A/Texas/50/2012-like (H3N2) virus B/Massachusetts/2/2012-like B/Brisbane/60/2008-like virus (in quadrivalent)	104,822 (83.5%) Type A 52,299 (99.6%) type A (H3N2) 219 (0.2%) type A (pH1N1) one H3N2v and two H1N1v 20,640 (16.5%) Type B
<b>2015-2016</b>	A/California/7/2009-like (pH1N1) A/Switzerland/9715293/2013 (H3N2)-like B/Phuket/3073/2013-like B/Brisbane/60/2008-like (in quadrivalent)	18,781 (70.8%) Type A 3,560 (19.3%) type A (H3N2) 14,877 (80.7%) type A (pH1N1) 7,757 (29.2%) Type B 4,912 (63.3%) Type B Lineage determined 3,367 (68.5%) B/Yamagata 1,545 (31.5%) B/Victoria
<b>2016-2017</b>	A/California/7/2009-like (pH1N1) A/Hong Kong/4801/2014 (H3N2)-like B/Brisbane/60/2008-like B/Phuket/3073/2013-like (in quadrivalent)	31,736 (77.9%) Type A 30,519 (97.2%) type A (H3N2) 892 (2.8%) type A (pH1N1) 8,992 (22.1%) Type B 4,892 (71.2%) B/Yamagata 1,983 (28.8%) B/Victoria
<b>2017-2018</b>	A/Michigan/45/2015 (H1N1)pdm09-like A/Hong Kong/4801/2014 (H3N2)-like B/Brisbane/60/2008-like (B/Victoria lineage) B/Phuket/3073/2013-like (B/Yamagata lineage) (in quadrivalent)	38,303 (71.2%) Type A 31,977 (84.9%) type A (H3N2) 5,704 (15.1%) type A (H1N1)pdm09 15,487 (28.8%) 10,612 (88.8%) B/Yamagata 1,338 (11.2%) B/Victoria



<u>Year</u>	<u>Vaccine Components</u>	<u>Circulating Strains</u>
<b>2018-2019</b>	A/Michigan/45/2015 (H1N1)pdm09-like	40,624 (96%) Type A
	A/Singapore/INFIMH-16-0019/2016 (H3N2)	22,084 (56.6%) type A (H1N1)pdm09
	B/Colorado/06/2017-like (Victoria lineage)	16,991 (43.6%) type A (H3N2)
	B/Phuket/3073/2013-like (Yamagata lineage)	1,679 (4%) Type B
	(in quadrivalent)	406 (36.7%) B/Yamagata 699 (63.3%) B/Victoria
<b>2019-2020</b>	A/Brisbane/02/2018 A(H1N1)pdm09-like	24,159 (58.6%) Type A
	A/Kansas/14/2017 A(H3N2)-like	21,198 (93.0%) type A (H1N1)pdm09
	B/Colorado/06/2017-like (B/Victoria lineage)	1,591 (7.0%) type A (H3N2)
	B/Phuket/3073/2013-like (B/Yamagata lineage) (in quadrivalent)	1 (<0.1%) type A (H3N2v)
		17,088 (41.4%) Type B 211 (1.6%) B/Yamagata 13,317 (98.4%) B/Victoria
<b>2020-2021</b>	<b>egg-based</b>	
	A/Guangdong-Maonan/SWL1536/2019 (H1N1)pdm09-like	154 (61.4%) Type A 18 (45.0%) type A (H1N1)pdm09
	A/Hong Kong/2671/2019 (H3N2)-like	21 (52.5%) type A (H3N2)
	B/Washington/02/2019 (Victoria lineage)-like	1 (2.5%) type A (H3N2v)
	B/Phuket/3073/2013 (Yamagata lineage)-like	97 (38.6%) Type B 8 (40.0%) B/Yamagata 12 (60.0%) B/Victoria
	<b>Cell culture-based</b>	
	A/Hawaii/70/2019 (H1N1)pdm09-like	
	A/Hong Kong/45/2019 (H3N2)-like	
	B/Washington/02/2019 (Victoria lineage)-like	
	B/Phuket/3073/2013 (Yamagata lineage)-like	
<b>2021-2022</b>	<b>egg-based</b>	
	A/Victoria/2570/2019 (H1N1)pdm09-like	25,743 (99.4%) Type A
	A/Cambodia/eo826360/2020 (H3N2)-like	46 (0.2%) type A (H1N1)pdm09
	B/Washington/02/2019 (B/Victoria lineage)-like	20,385 (99.8%) type A (H3N2)
	B/Phuket/3073/2013 (B/Yamagata lineage)-like	4 (<0.1%) type A (H3N2v)
		150 (0.6%) Type B 1 (2.4%) B/Yamagata 42 (97.6%) B/Victoria
	<b>Cell culture-based</b>	
A/Wisconsin/588/2019 (H1N1)pdm09-like		
A/Cambodia/eo826360/2020 (H3N2)-like		
B/Washington/02/2019 (B/Victoria lineage)-like		
B/Phuket/3073/2013 (B/Yamagata lineage)-like		
<b>2022-2023</b>	<b>egg-based</b>	
	A/Victoria/2570/2019 (H1N1)pdm09-like	
	A/Darwin/9/2021 (H3N2)-like	
	B/Austria/1359417/2021 (B/Victoria lineage)-like B/Phuket/3073/2013 (B/Yamagata lineage)-like	

# NEBRASKA

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Pete Ricketts, Governor

**Cell culture-based**

A/Wisconsin/588/2019 (H1N1)pdm09-like

A/Darwin/6/2021 (H3N2)-like

B/Austria/1359417/2021 (B/Victoria lineage)-like

B/Phuket/3073/2013 (B/Yamagata lineage)-like