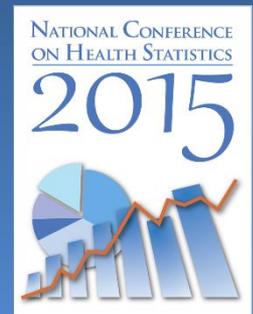


Quarterly Provisional Estimates of Mortality

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Acknowledgments

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Background

- Until recently annual mortality files and reports not available until 18-24 months after the end of data year
- Surveillance projects have demonstrated potential for producing more rapid mortality estimates

Mortality Data NCHS had Received and Coded as of 7/27/2015

Date of Death (Week Ending)	Count	% of Expected*
07/25/2015	2,472	5%
07/18/2015	13,869	28%
07/11/2015	21,035	42%
07/04/2015	25,647	51%
06/27/2015	30,528	61%
06/20/2015	33,778	67%
06/13/2015	36,509	73%
06/06/2015	37,035	74%
05/30/2015	37,885	75%
05/23/2015	38,107	76%
05/16/2015	39,457	79%
05/09/2015	41,586	83%

* Assumes 50,000 deaths per week

Accounting for Incomplete Data: Methodology

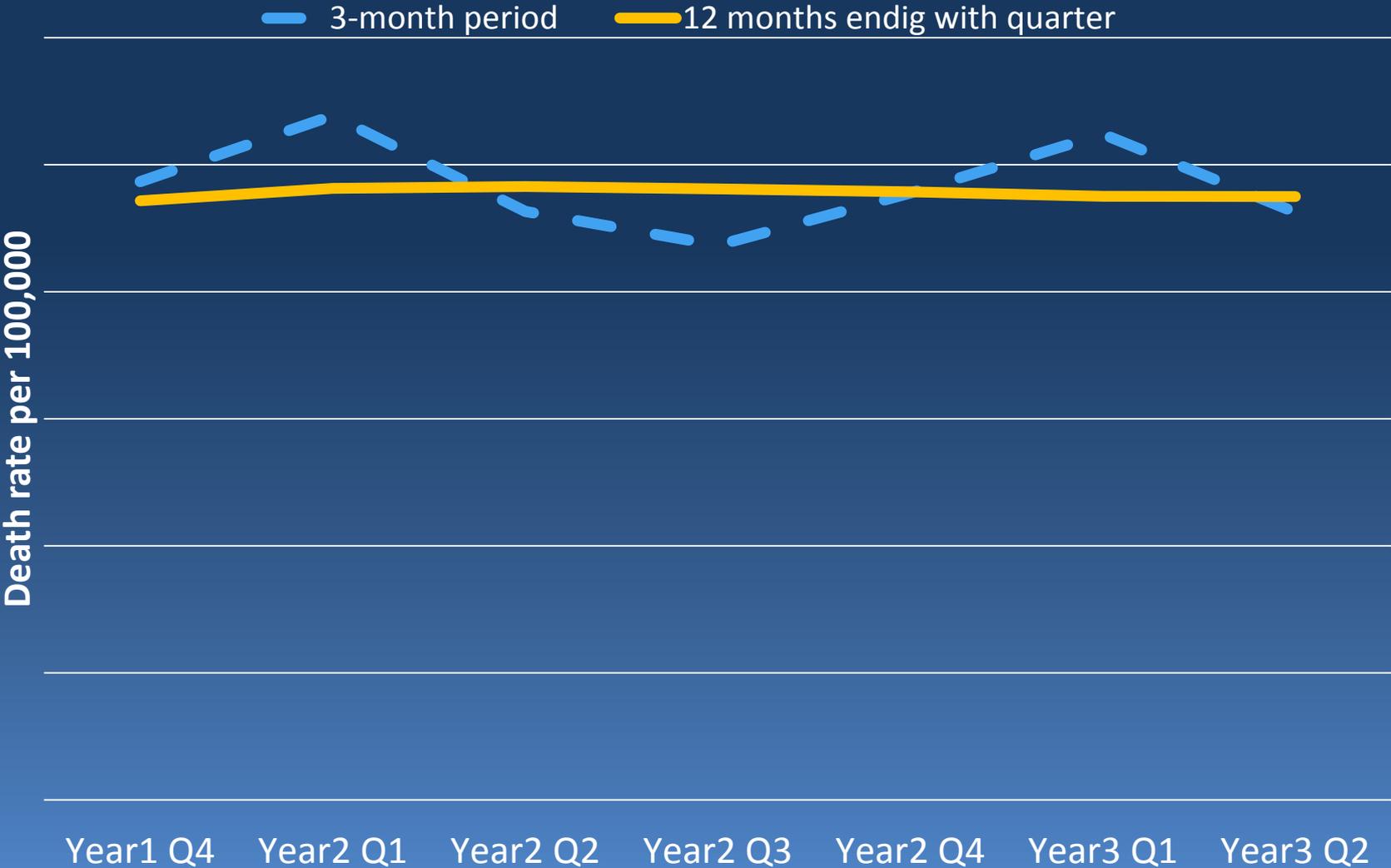
- Weight surveillance data to the monthly provisional count by state
- Impute based on previous years' data for the same month if surveillance data is less than half the monthly provisional count for a state

Mortality data completeness as a percentage of provisional count: selected states, as of June 21, 2015

Area	Oct. 2014	Nov. 2014	Dec. 2014	Jan. 2015	Feb. 2015	Mar. 2015
Total U.S.	100	100	100	95	92	86
AK	100	100	100	100	100	100
AL	100	100	99	100	100	100
AR	100	93	93	100	95	73
AZ	100	100	100	100	100	100
CA	100	100	100	100	100	100
CO	100	100	100	100	90	35
CT	100	98	100	100	62	0
...

SOURCE: National Center for Health Statistics. Quarterly provisional estimates for selected causes of death: United States, 2014–Quarter 1, 2015. National Vital Statistics System, Vital Statistics Rapid Release Program. 2015.

Evaluation of Provisional Death Rates: Diabetes (X months lag)



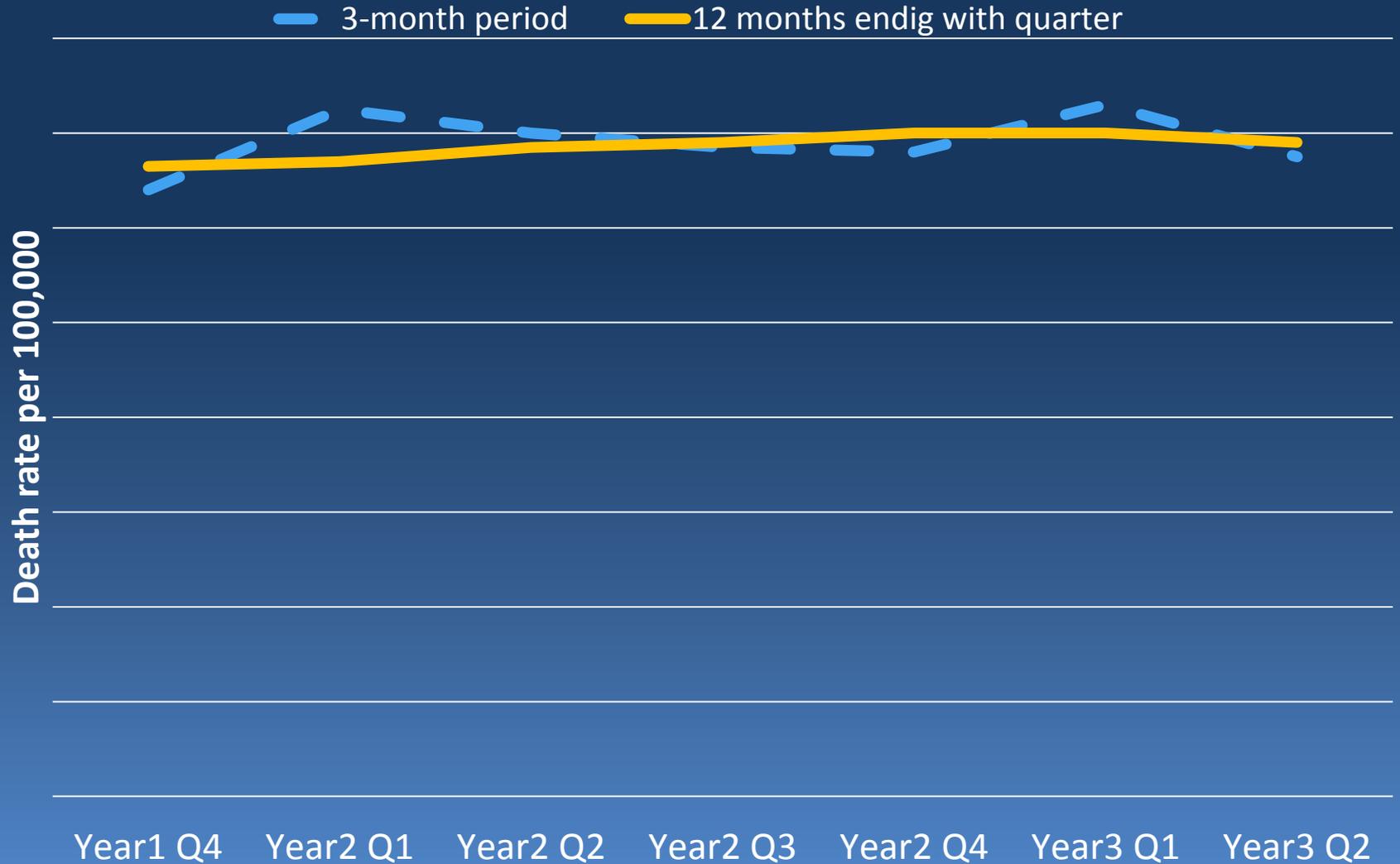
Evaluation of Provisional Death Rates: Diabetes (X+2.5 months lag)



Evaluation of Provisional Death Rates: Drug Overdose (X months lag)



Evaluation of Provisional Death Rates: Drug Overdose (X+2.5 months lag)



Percent of Death Records with Cause of Death Pending by Month: 2011—August 2015 (as of 8/24/15)



Accuracy of Provisional Estimates

Based on preliminary analysis of the methods...

- Rate estimates for the most recent 3-month period may be up to 2% below the true rates for some of the selected causes of death
- Rate estimates for the most recent 12-month period and for earlier 3-month periods are expected to be more accurate

First Release of Quarterly Provisional Estimates

What does the report contain?

- Includes quarterly estimates through 1st quarter of 2015
- Rate estimates for 7 selected causes of death
- 3-month “quarterly” and 12-month ending crude and age-adjusted death rates
- Web only

Screenshot of Quarterly Provisional Estimates Dashboard

http://www.cdc.gov/nchs/products/vsrr/mortality-dashboard.htm

Products - Vital Statistics Ra... x

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NVSS Vital Statistics Rapid Release

Quarterly Provisional Estimates

Select an estimate:

Crude and age-adjusted death rates for influenza and pneumonia: 2014–Quarter 1, 2015

- For 2014 (12-month period ending with fourth quarter of 2014), the provisional crude death rate for influenza and pneumonia was 17.3 deaths per 100,000 population, a decrease from 18.0 deaths per 100,000 in 2013. The age-adjusted death rate for influenza and pneumonia decreased 5% from 2013 (15.9 deaths per 100,000 standard population) to 2014 (15.1).
- For the first quarter of 2015, the provisional crude death rate for influenza and pneumonia was 27.2 deaths per 100,000 population, higher than the death rate of 23.8 in the first quarter of 2014. The increase remained after adjustment for age (23.3 and 20.9, respectively).

Select a rate:

[Save as PNG Image](#) [Download CSV Dataset](#)

Crude death rates for influenza and pneumonia: United States, 2014–Quarter 1, 2015

Quarter	Influenza and pneumonia, 3-month period (Crude rate)	Influenza and pneumonia, 12 months ending with quarter (Crude rate)
2014 Q1	23.8	17.1
2014 Q2	15.4	17.1
2014 Q3	12.7	17.0
2014 Q4	17.5	17.3
2015 Q1	27.2	18.2

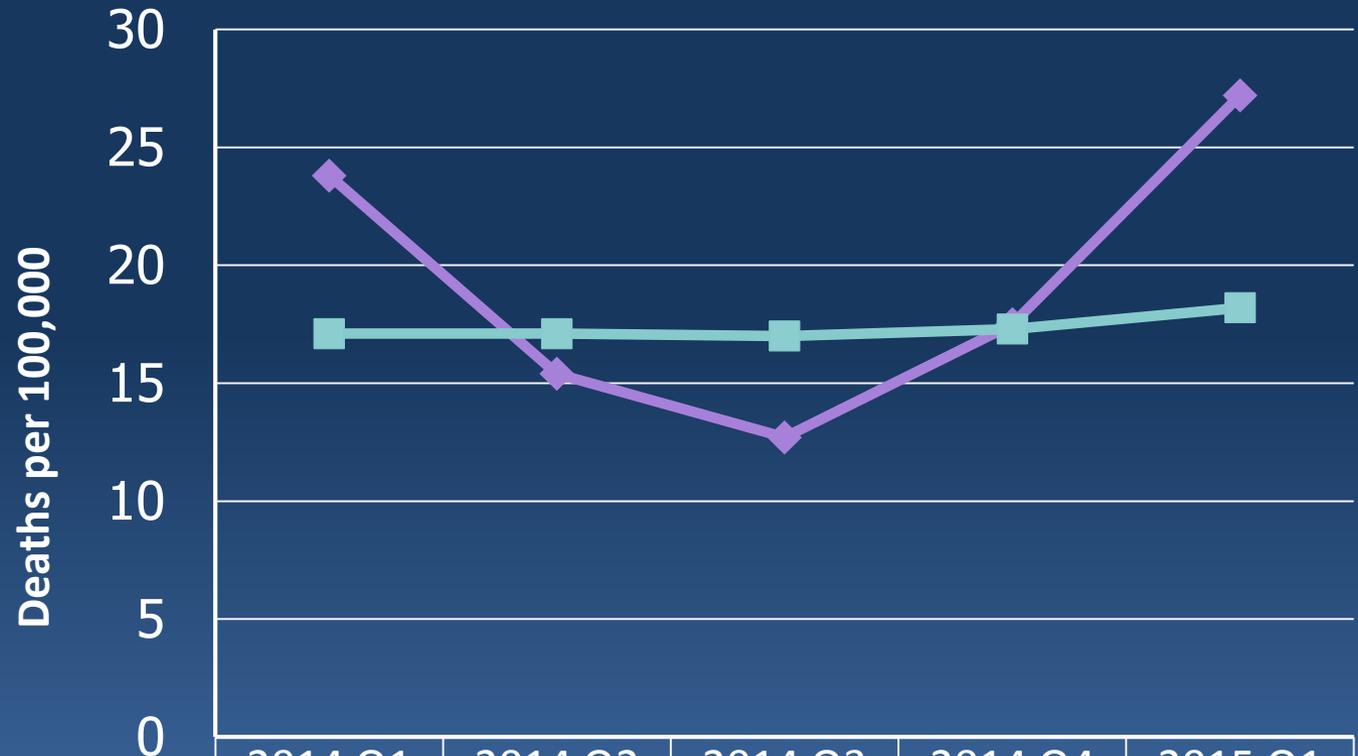
NOTES: Influenza and pneumonia deaths were identified using underlying cause-of-death codes J09-

100%

Estimates Selected for First Release

- Influenza and pneumonia
- Human immunodeficiency virus (HIV) disease
- Falls (for persons aged 65 and over)
- Alzheimer's disease
- Diabetes
- Stroke
- Heart disease

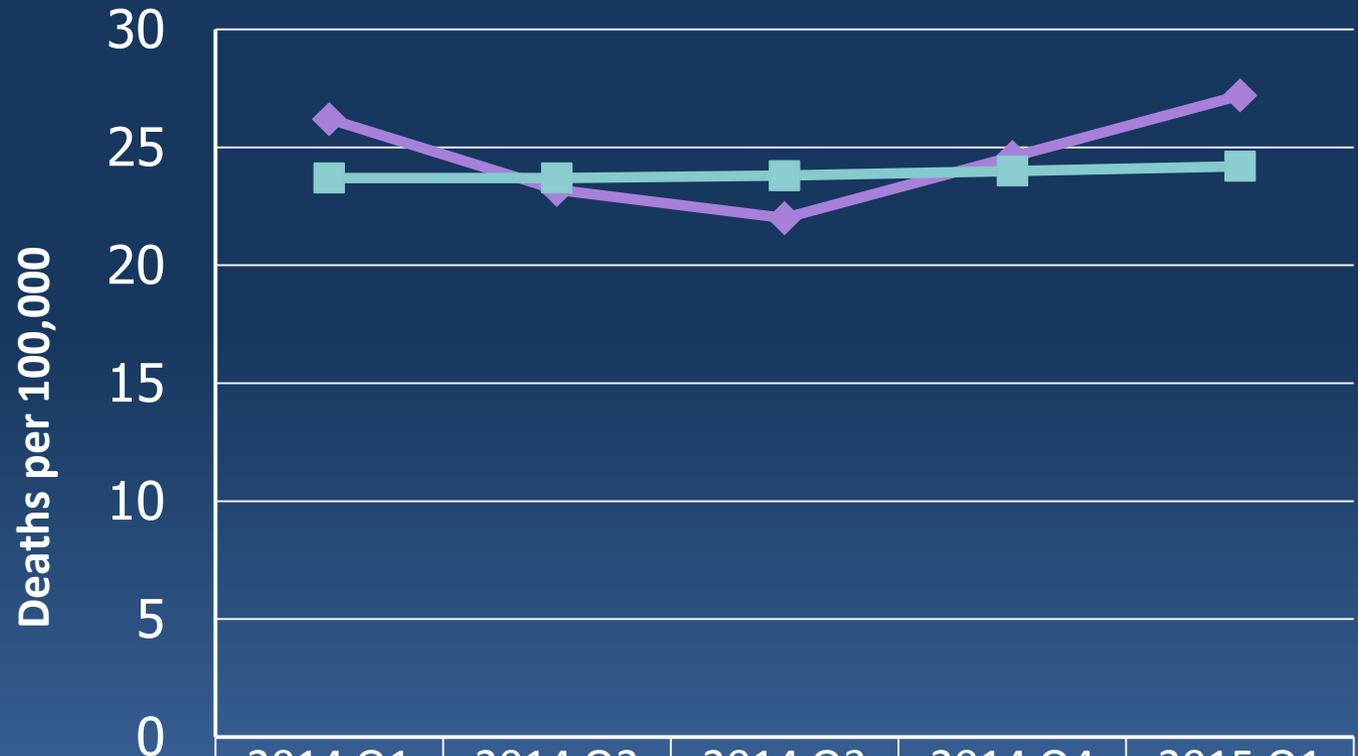
Crude death rates for influenza and pneumonia: United States, 2014—Quarter 1, 2015



◆ 3-month period	23.8	15.4	12.7	17.5	27.2
■ 12 months ending with quarter	17.1	17.1	17	17.3	18.2

SOURCE: National Center for Health Statistics. Quarterly provisional estimates for selected causes of death: United States, 2014—Quarter 1, 2015. National Vital Statistics System, Vital Statistics Rapid Release Program. 2015.

Crude death rates for diabetes: United States, 2014—Quarter 1, 2015



	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1
◆ 3-month period	26.2	23.2	22	24.6	27.2
■ 12 months ending with quarter	23.7	23.7	23.8	24	24.2

SOURCE: National Center for Health Statistics. Quarterly provisional estimates for selected causes of death: United States, 2014—Quarter 1, 2015. National Vital Statistics System, Vital Statistics Rapid Release Program. 2015.

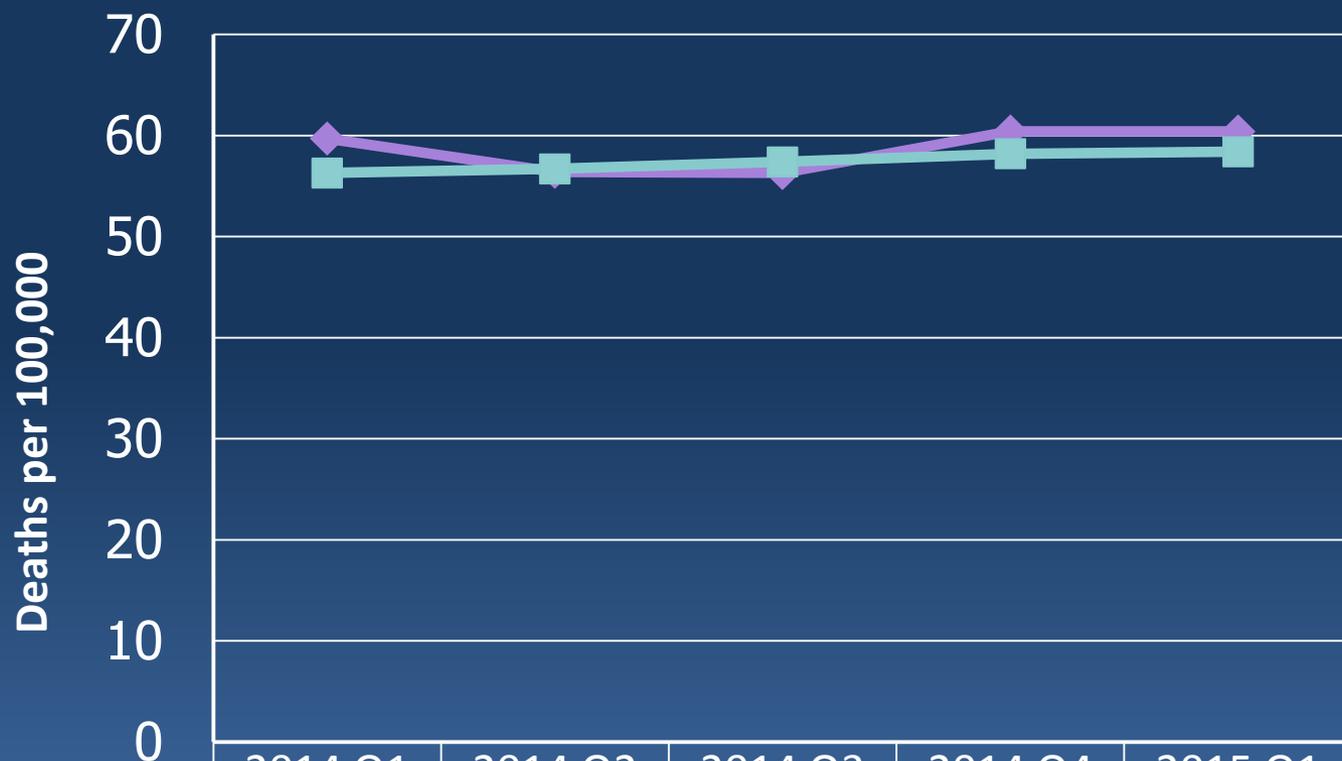
Crude death rates for HIV disease: United States, 2014—Quarter 1, 2015



◆ 3-month period	2.3	2	2	2.1	2.2
■ 12 months ending with quarter	2.2	2.1	2.1	2.1	2.1

SOURCE: National Center for Health Statistics. Quarterly provisional estimates for selected causes of death: United States, 2014—Quarter 1, 2015. National Vital Statistics System, Vital Statistics Rapid Release Program. 2015.

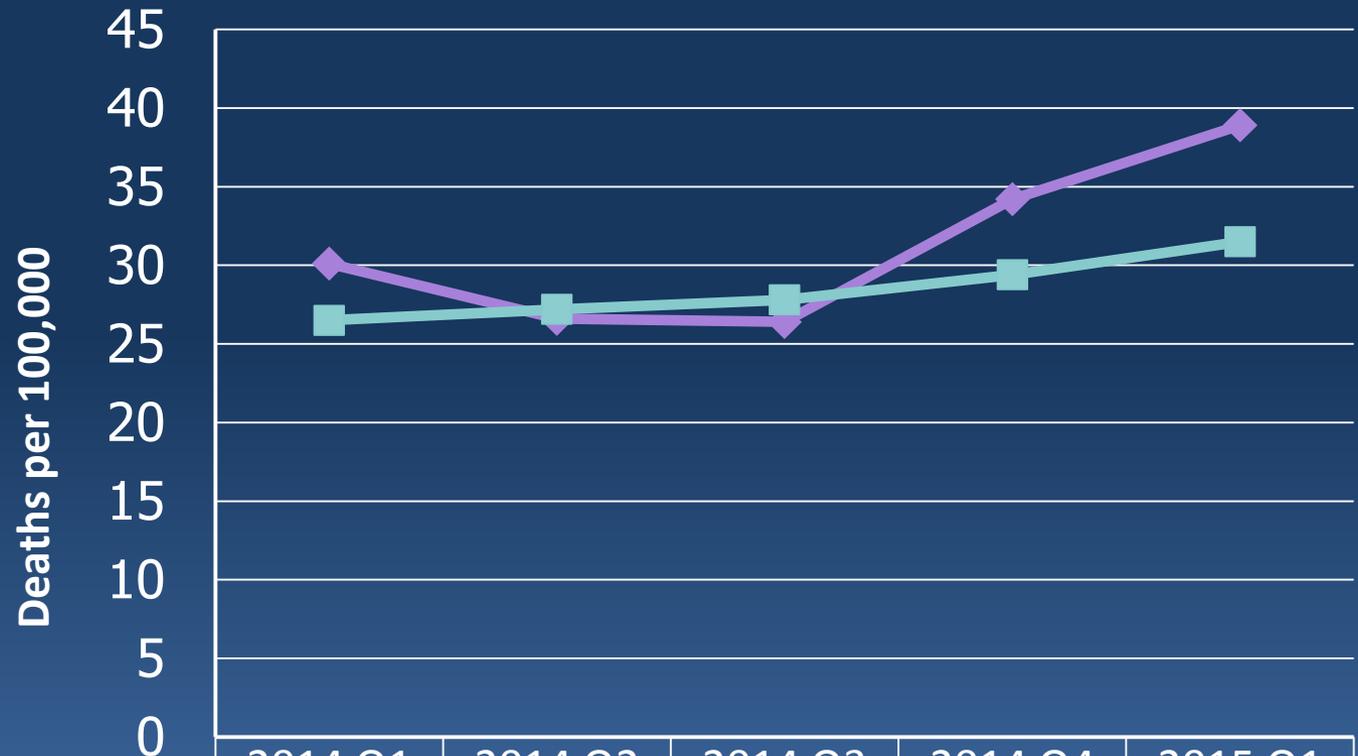
Crude death rates for falls, ages 65 and over: United States, 2014—Quarter 1, 2015



	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1
◆ 3-month period	59.7	56.4	56.3	60.4	60.4
■ 12 months ending with quarter	56.3	56.7	57.4	58.2	58.4

SOURCE: National Center for Health Statistics. Quarterly provisional estimates for selected causes of death: United States, 2014—Quarter 1, 2015. National Vital Statistics System, Vital Statistics Rapid Release Program. 2015.

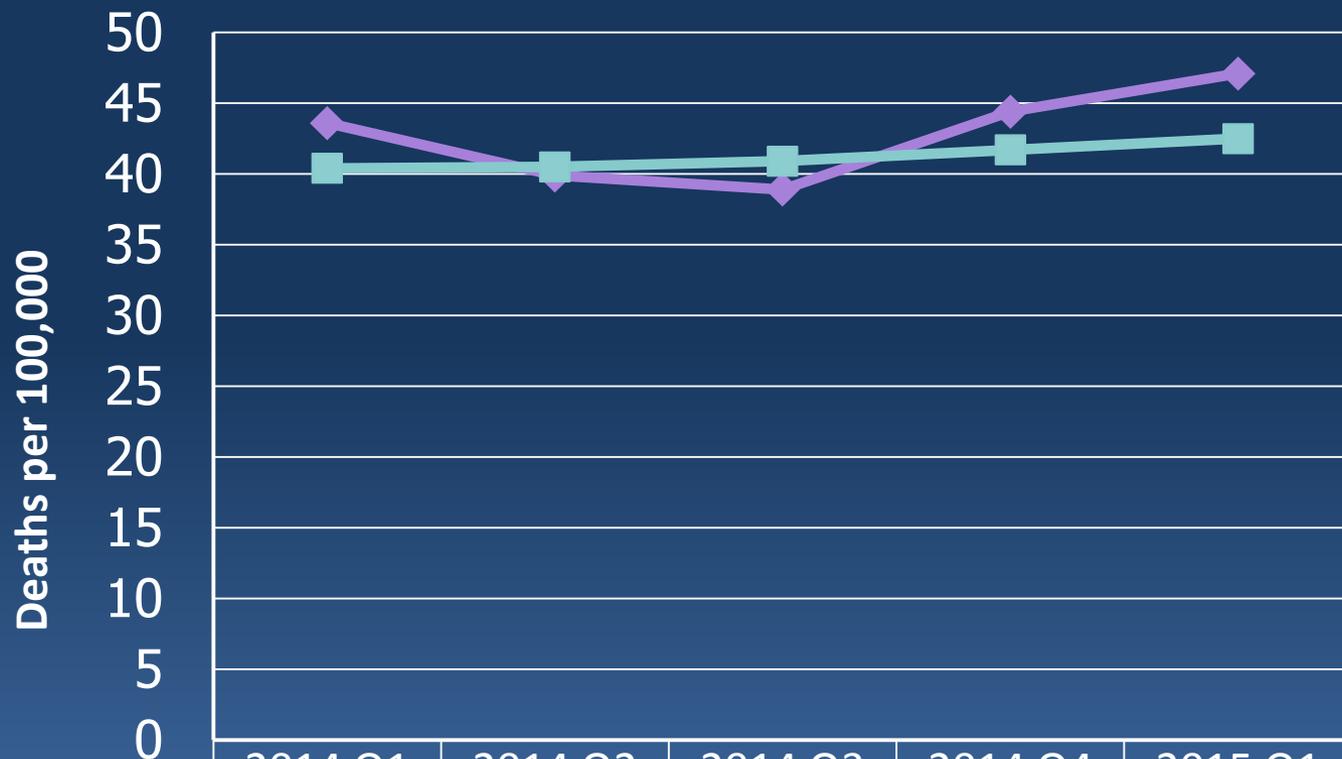
Crude death rates for Alzheimer's disease: United States, 2014—Quarter 1, 2015



	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1
◆ 3-month period	30.1	26.6	26.4	34.2	38.9
■ 12 months ending with quarter	26.5	27.2	27.8	29.4	31.5

SOURCE: National Center for Health Statistics. Quarterly provisional estimates for selected causes of death: United States, 2014—Quarter 1, 2015. National Vital Statistics System, Vital Statistics Rapid Release Program. 2015.

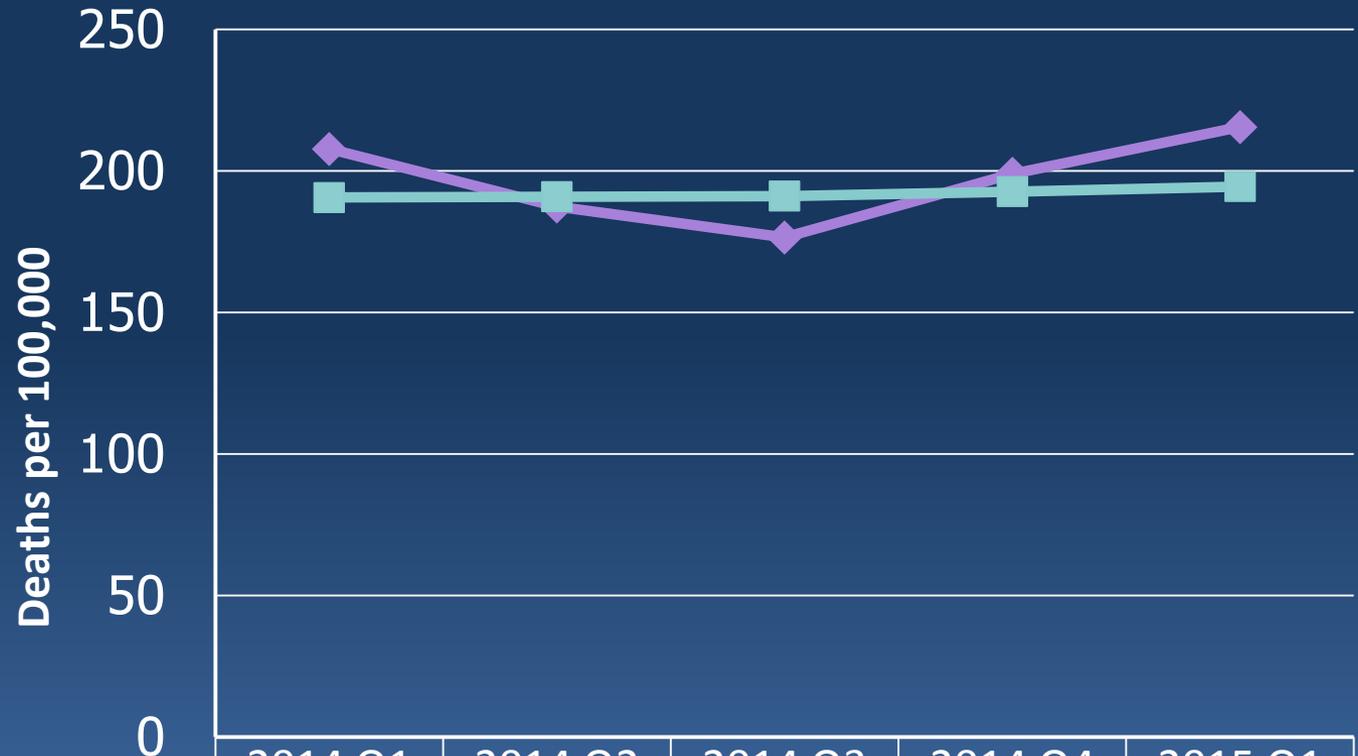
Crude death rates for stroke: United States, 2014— Quarter 1, 2015



◆ 3-month period	43.6	39.9	38.9	44.4	47.1
■ 12 months ending with quarter	40.4	40.5	40.9	41.7	42.5

SOURCE: National Center for Health Statistics. Quarterly provisional estimates for selected causes of death: United States, 2014–Quarter 1, 2015. National Vital Statistics System, Vital Statistics Rapid Release Program. 2015.

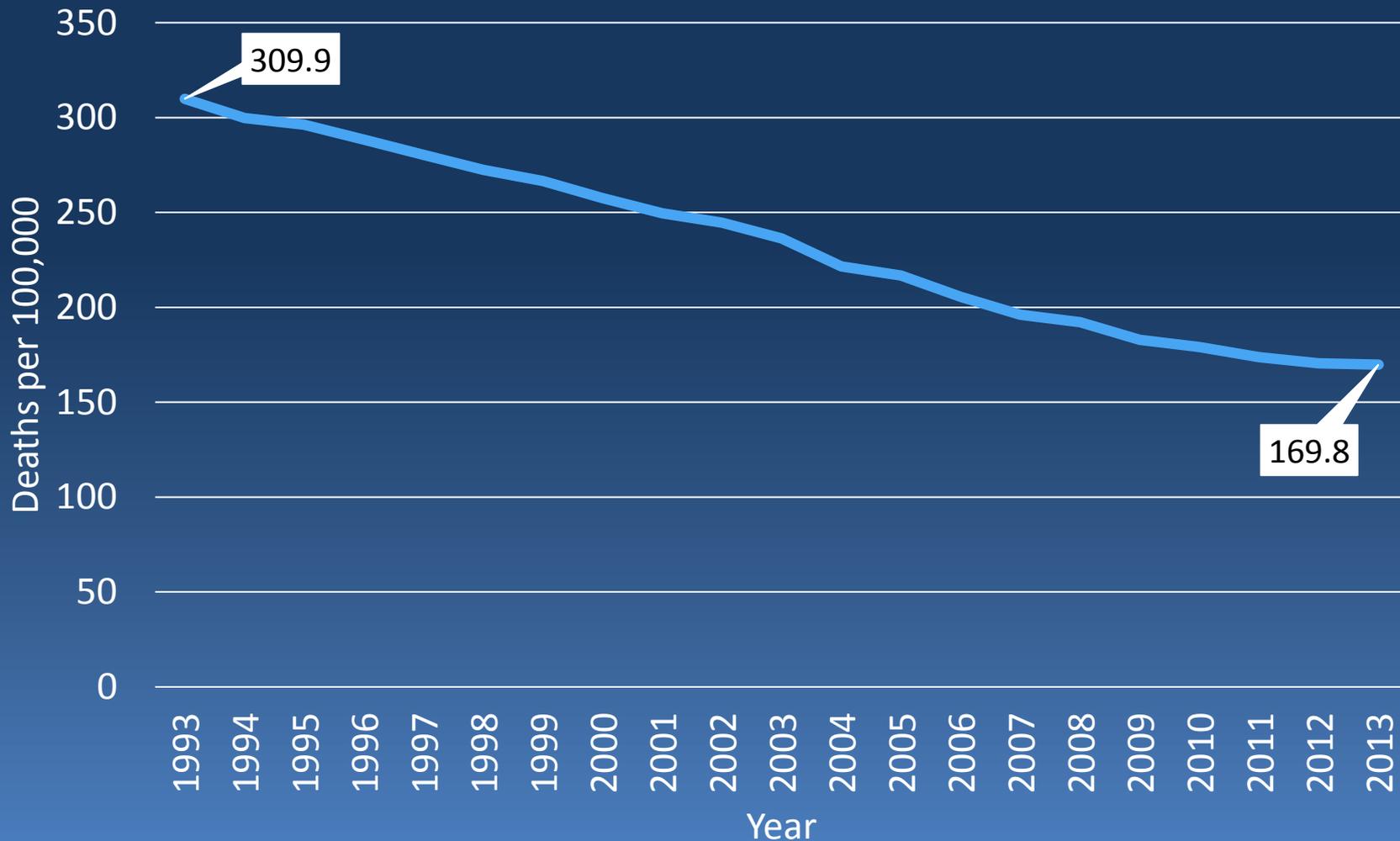
Crude death rates for heart disease: United States, 2014—Quarter 1, 2015



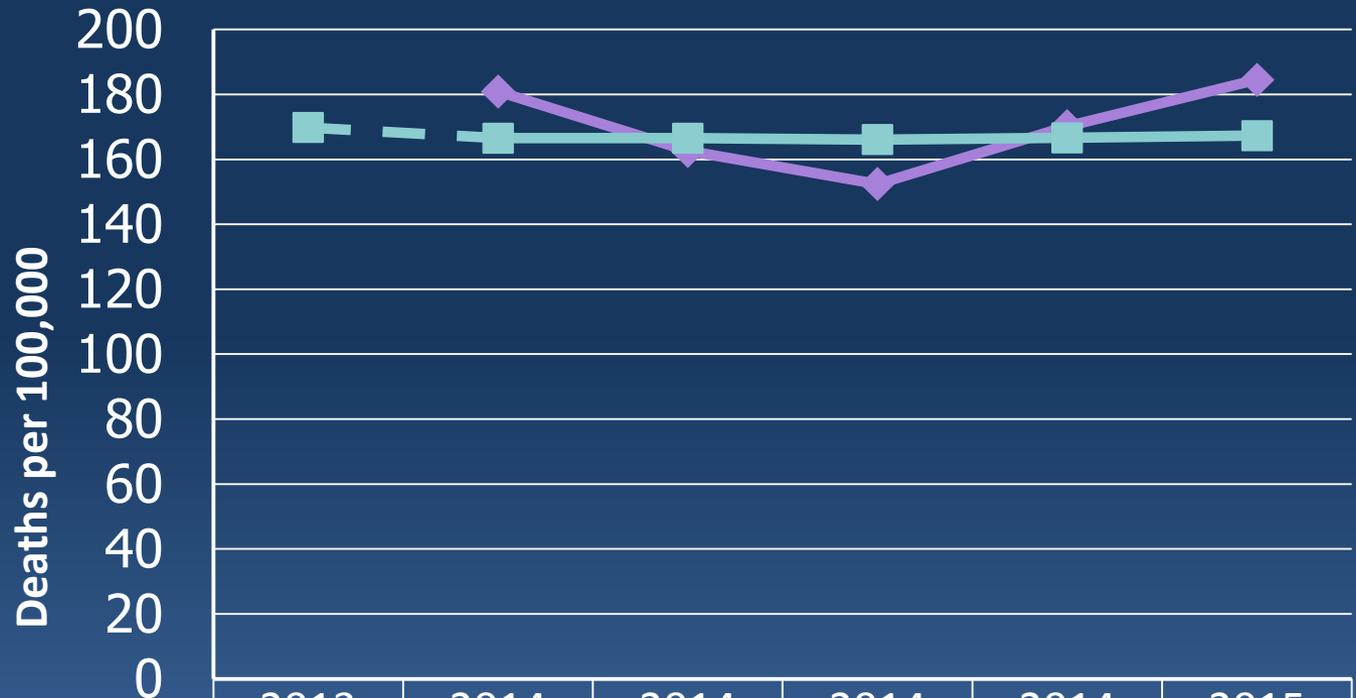
	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1
3-month period	207.8	187.4	176.5	199	215.5
12 months ending with quarter	190.6	190.9	191.1	192.7	194.5

SOURCE: National Center for Health Statistics. Quarterly provisional estimates for selected causes of death: United States, 2014—Quarter 1, 2015. National Vital Statistics System, Vital Statistics Rapid Release Program. 2015.

Age-adjusted death rates for heart disease: United States, 1993—2013



Age-adjusted death rates for heart disease: United States, 2014—Quarter 1, 2015



	2013 (Final)	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1
◆ 3-month period		180.9	162.6	152.4	170.2	184.5
■ 12 months ending with quarter	169.8	166.5	166.5	166.1	166.6	167.3

SOURCE: National Center for Health Statistics. Quarterly provisional estimates for selected causes of death: United States, 2014—Quarter 1, 2015. National Vital Statistics System, Vital Statistics Rapid Release Program. 2015.

What's Next

- Expand list of provisional mortality estimates
 - 15 leading causes of death (if possible)
 - Selected other causes of death
- Feasibility of using different lag periods for different causes of death
- Provisional estimates of birth data

Quarterly Provisional Estimates of Mortality

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