

Adoption of Health Information Technology among U.S. Ambulatory and Long-term Care Providers

Chun-Ju Hsiao, Ph.D, M.H.S.
Esther Hing, M.P.H.

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Background

- The 2009 American Recovery and Reinvestment Act (ARRA)
 - Meaningful use incentives
- The 2010 Affordable Care Act
 - Accountable care organizations
 - Bundled payment initiative

Objectives

- To examine adoption of electronic health record (EHR) systems among ambulatory and long-term care providers
- To examine whether physicians' EHRs meet MU criteria
- To examine the current state of health information exchange in physicians' offices and residential care facilities

Data sources

Survey	Type of provider	Data year analyzed	Average responding sample size	Data collection method
NAMCS	Office-based physician	2001-2011	Personal interview: 1,500 physicians 2008-2009 mail survey: 950 physicians 2010-2011 mail survey: 4,500 physicians	Personal interview and mail survey in 2008-2011
NHAMCS	Hospital outpatient department (OPD) and emergency departments (ED)	2001-2010	480 hospitals	Personal interview
NNHS	Nursing homes	2004	1,200 nursing homes	Computer-assisted personal interview
NHHCS	Hospices and home health agencies	2007	1,000 agencies	Self-administered questionnaire and computer-assisted personal interview
NSRCF	Residential care facilities	2010	2,300 facilities	Computer-assisted personal interview

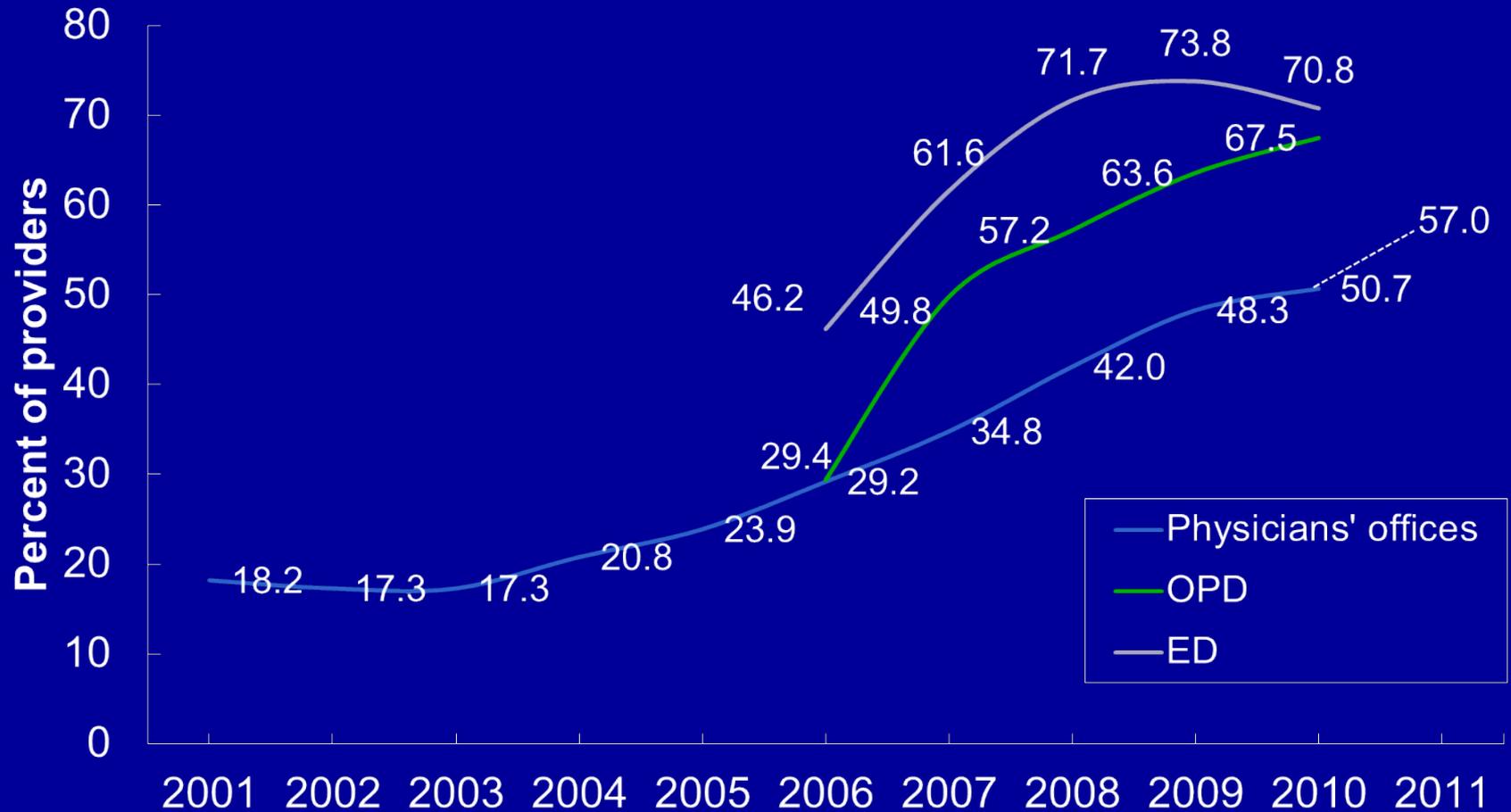
EMR/EHR measures

- Any EMR/EHR system
 - “Yes” to the question “Does this _____ use EMR/EHR (not including billing records)?”
- Basic system
- Fully functional system

Meaningful use measures

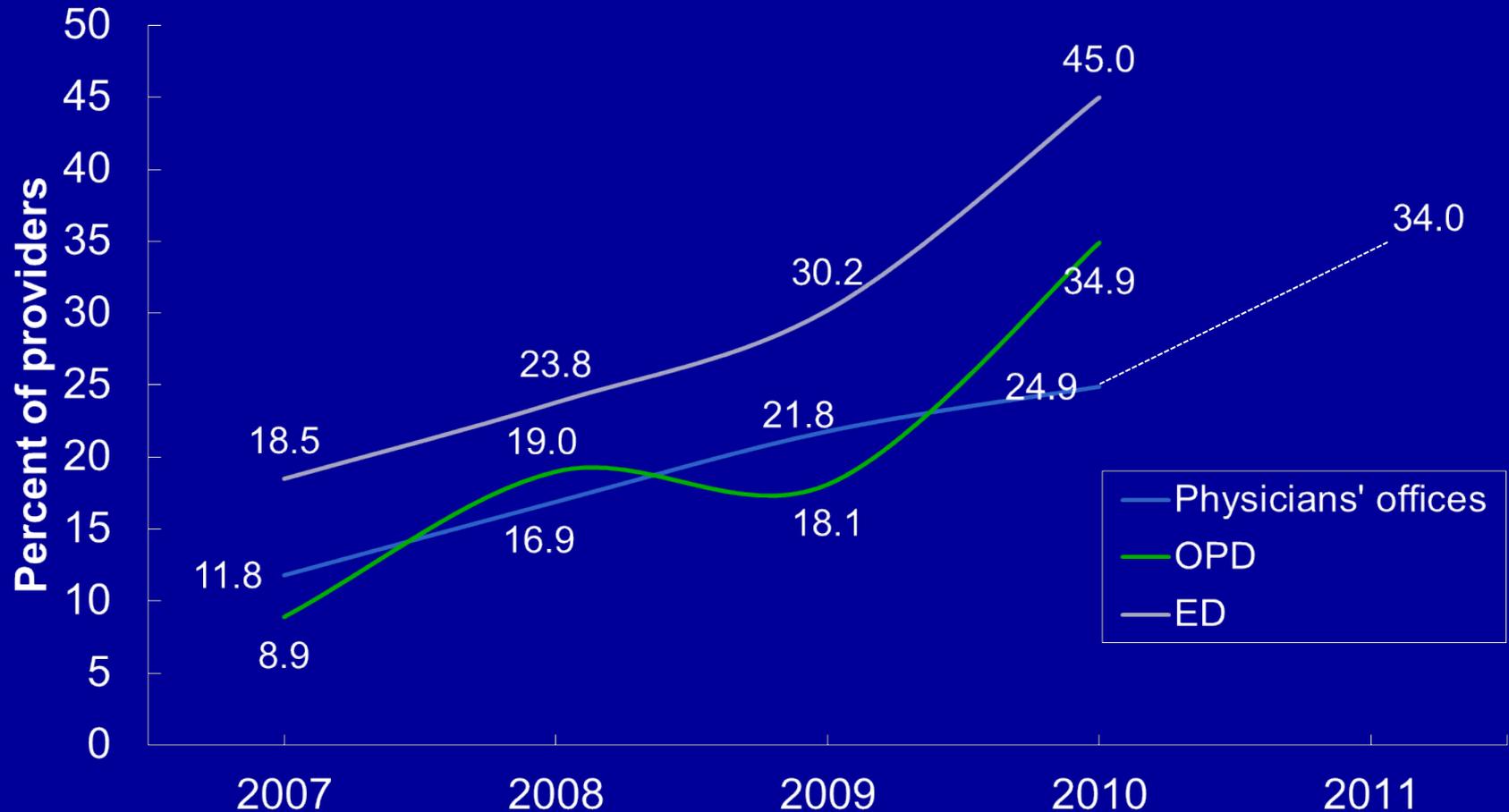
- Physicians' readiness for 10 of 15 Stage 1 meaningful use objectives
- Physicians and residential care facilities exchange of health information

Percent of ambulatory care providers using any EMR/EHR systems, by setting: United States, 2001-2010, and preliminary 2011



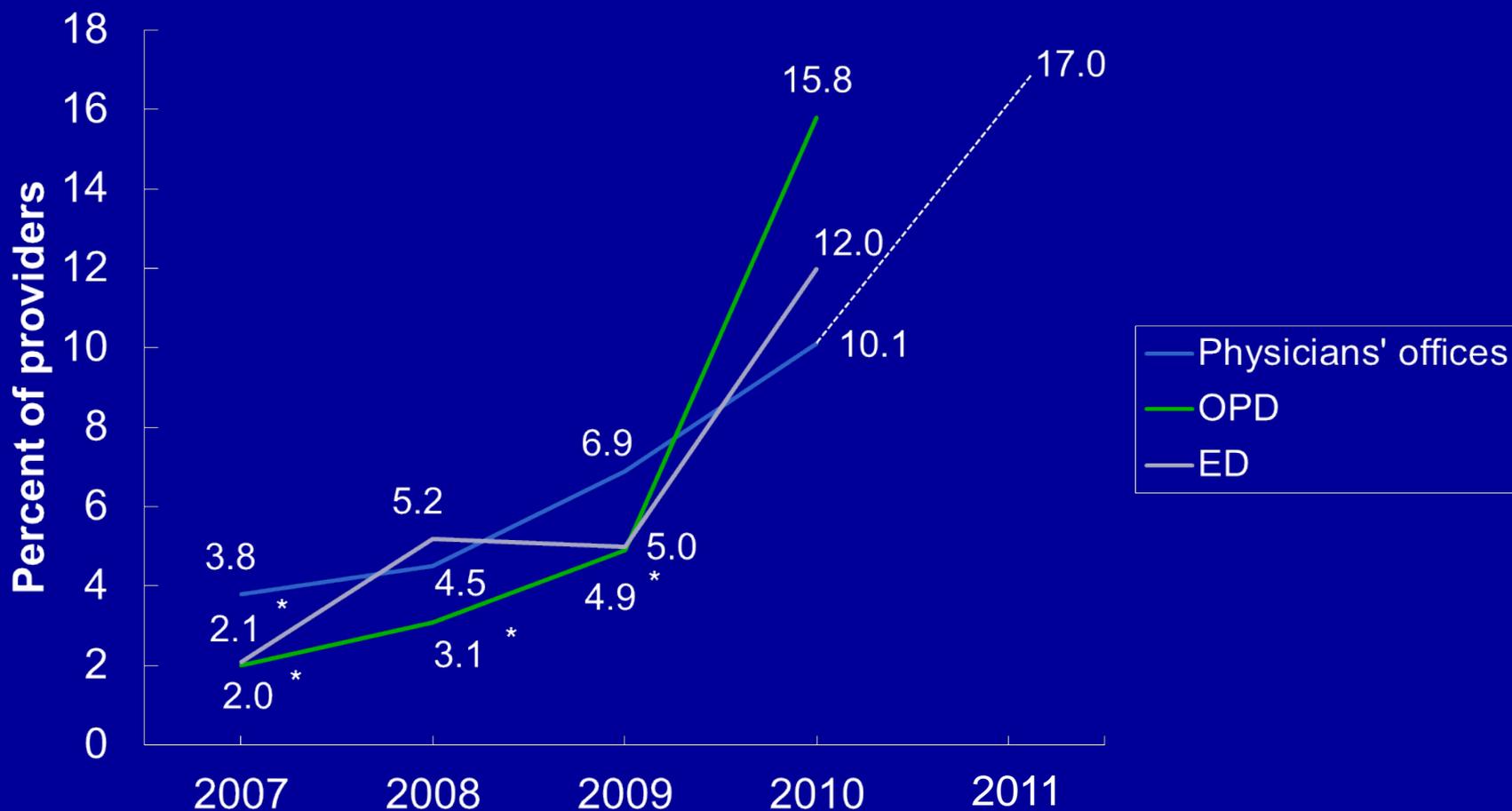
Source: CDC/NCHS, National Ambulatory Medical Care Survey, National Hospital Ambulatory Medical Care Survey

Percent of ambulatory care providers with basic systems, by setting: United States, 2007-2010, and preliminary 2011



Source: CDC/NCHS, National Ambulatory Medical Care Survey, National Hospital Ambulatory Medical Care Survey

Percent of ambulatory care providers with fully functional systems, by setting: United States, 2007-2010, and preliminary 2011



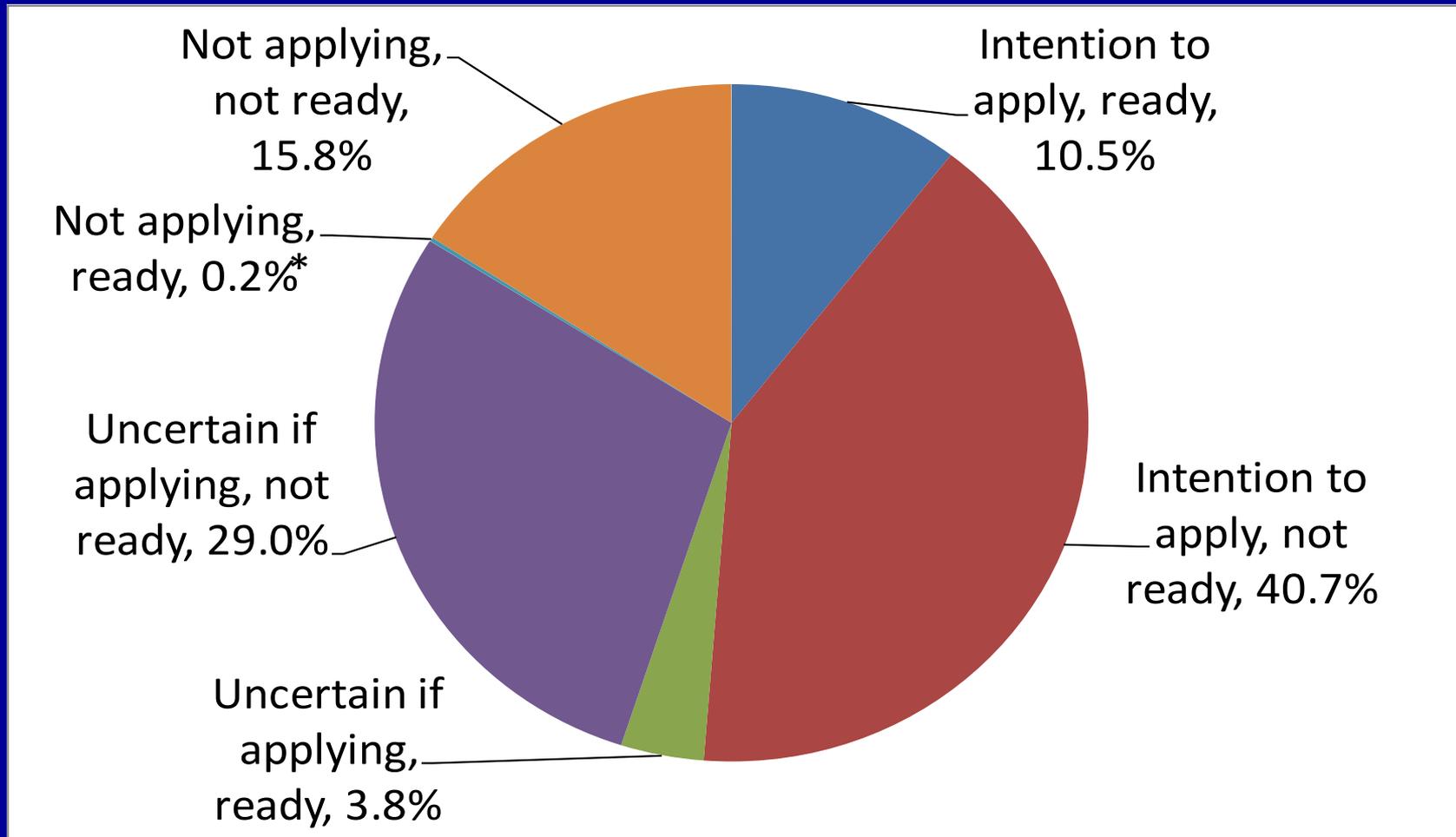
* Figure does not meet standards of reliability or precision.

Source: CDC/NCHS, National Ambulatory Medical Care Survey, National Hospital Ambulatory Medical Care Survey

EHR adoption in long-term care settings

- 2004 National Nursing Home Survey
 - Any EMR/EHR: 42.7%
 - Basic system: 19.9%
- 2007 National Home and Hospice Care Survey
 - Any EMR/EHR: 41.0%
 - Basic system: 9.9%
- 2010 National Survey of Residential Care Facilities
 - Any EMR/EHR: 17.4%
 - Basic system: 3.0%

Physicians' Readiness for 10 Stage 1 Core Set Objectives by Intention to Apply, 2011



SOURCE: CDC/NCHS, National Ambulatory Medical Care Survey.

Health information exchange

Physicians' offices

2011 NAMCS mail survey

- 29.4% of physicians electronically exchanged patient clinical summary
- Mechanisms
 - EMR/EHR vendor: 64.2%
 - Hospital-based systems: 27.5%
 - Secure email attachment: 19.5%
 - Other mechanisms or unknown: 15.1%
 - Health information organization or state exchange: 4.6%

Health information exchange (cont.)

Long-term care setting

2010 NSRCF, percentage of residential care facilities supporting electronic health information exchange with:

- Pharmacy: 8.2%
- Physicians: 7.4%
- Corporate office: 5.6%
- Hospital: 5.4%
- Nursing home: 4.7%
- Laboratory: 4.4%
- Other health or long-term care provider: 3.7%
- Resident's personal health record: 3.4%
- Public health reporting: 2.9%
- One or more specified providers: 15.5%

Conclusions

- Increasing trend for adoption of any EMR/EHR systems and basic systems in ambulatory care settings
- Adoption of any EMR/EHR systems in hospital ambulatory care settings was higher than physicians' offices
- Significant increase in adoption of fully functional systems in hospital ambulatory care settings between 2009 and 2010
- Adoption in long-term care settings varies

Conclusions (cont.)

- In 2011, few physicians both intended to apply for the meaningful use incentives and had EHRs with the capabilities to support 2/3 of the stage 1 core objectives.
- Less than 1/3 of physicians exchanged patient clinical summaries
- Few residential care facilities supported electronic health information exchanged with other providers

Policy implications

- More widespread adoption is needed for physicians to meet the federal schedule for meaningful use incentives
- EHR adoption by long-term care providers is essential in care coordination

Contact information

Chun-Ju (Janey) Hsiao

National Center for Health Statistics

Jhsiao1@cdc.gov