



CALIFORNIA  
HEALTHCARE  
FOUNDATION



SNAPSHOT  
The State of Health Information Technology  
in California

2011

# Introduction

The use of health information technology (HIT), defined as the software used to store, retrieve, share, and use clinical information effectively, has been growing within the state of California. HIT tools have the potential to reduce errors and adverse clinical events, and to improve the quality and efficiency of patient care. However, significant progress remains before these benefits can be fully realized.

This snapshot is the second comprehensive overview of HIT adoption and use in California; the first snapshot was published in 2008. The results reported here describe the use of HIT by physicians, hospitals, and community clinics and reveal overall growth in adoption, with certain key gaps.

## HIGHLIGHTS INCLUDE:

- A larger percentage of physicians reported access to electronic health records (EHRs) and ordering systems than reported in the 2008 snapshot. In general, physicians in larger practices were more likely than those in smaller practices to report the practice had implemented HIT tools.
- Use of decision support tools, particularly for medication orders, also became more widespread among physicians. In practices where technology is available, the majority of the physicians reported using decision support tools routinely.
- HIT use by hospitals varied widely by type of HIT tool. While nearly 90 percent of California hospitals reported having or being in the process of installing clinical decision support systems, only 40 percent reported having order entry systems installed.
- Community clinics saw tremendous growth in HIT use over the last six years. In 2005, 3 percent of clinics reported having an EHR; in the most recent survey, 47 percent reported having implemented one.

The growth of HIT use among physicians and community clinics in particular is a positive trend that ideally will accelerate with the current influx of federal funding. This financial support is a critical factor in transitioning the California health care system from the early stages of HIT adoption to a phase in which technology is effectively and routinely leveraged to create a safer and more efficient care delivery system.

Note: In some of the following slides, the response percentages do not exactly total 100 percent due to rounding. Percentage results that do not total 100 percent due to the allowance of multiple responses are noted in the text.

## The State of HIT in California

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## EHR Implementation at Physician Practices, Overall and by Practice Size

■ Implemented ■ Not Implemented ■ Unknown

All Physicians (n=65,388)



Solo



2 to 5 MDs



6 to 50 MDs



51+ MDs



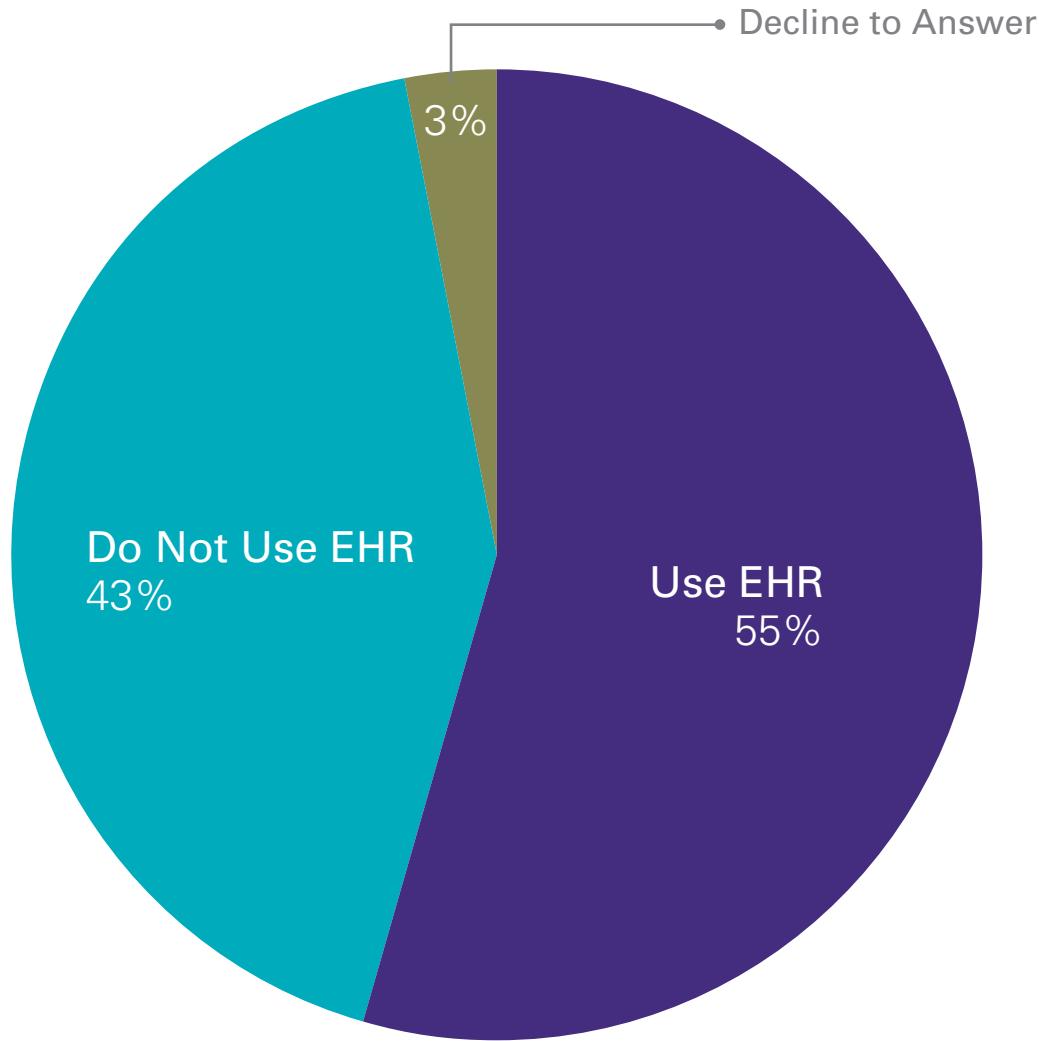
### The State of HIT in California EHR Use

About half of physicians reported working at practices with EHRs in place. Physicians in larger practices were more likely than those in small and solo practices to report that their practice had implemented EHR software.

Source: SK&A, 2010.

## EHR Use by Primary Care Physicians

n=187



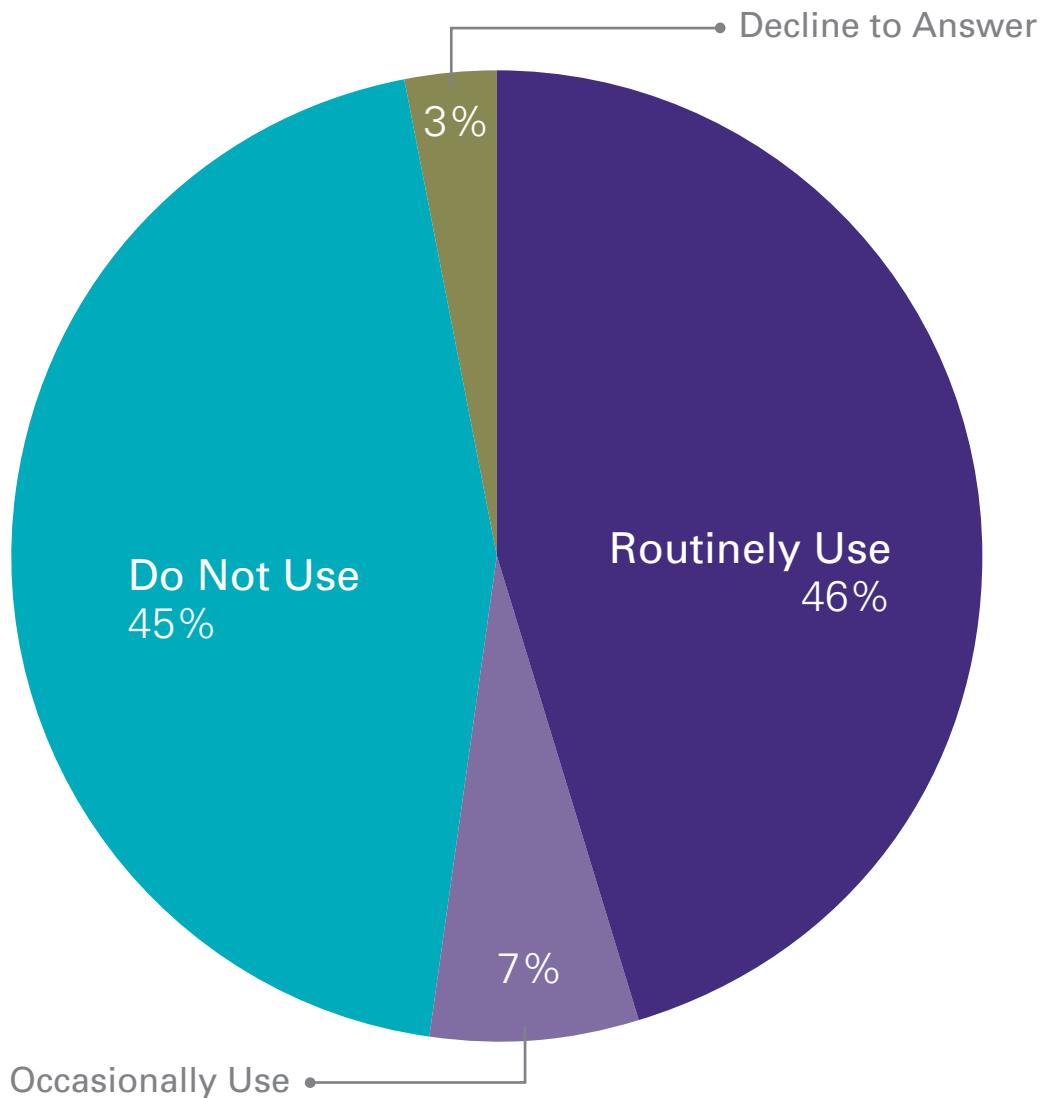
### The State of HIT in California EHR Use

Over half of primary care physicians (PCPs) surveyed reported using an EHR in his/her practice.

Source: Commonwealth Fund International Health Policy Survey of Primary Care Physicians, 2009.

## Use of Electronic Clinical Documentation by PCPs

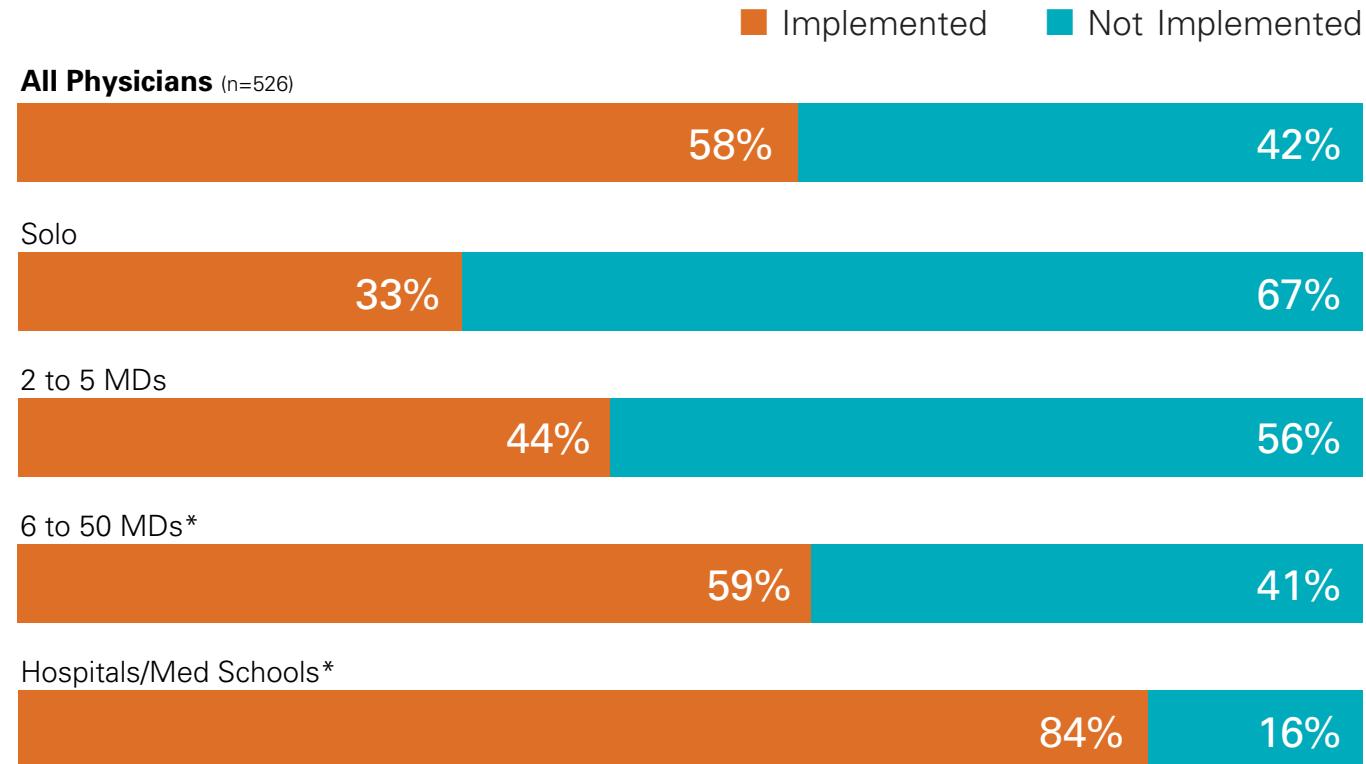
n=187



Source: Commonwealth Fund International Health Policy Survey of Primary Care Physicians, 2009.

Fifty-three percent of primary care physicians reported using electronic entry of clinical notes, including medical history and follow-up notes.

# Implementation of Technology to Access Clinical Information, Overall and by Practice Category



\*Difference from "Solo" physicians category is statistically significant at p<0.01.

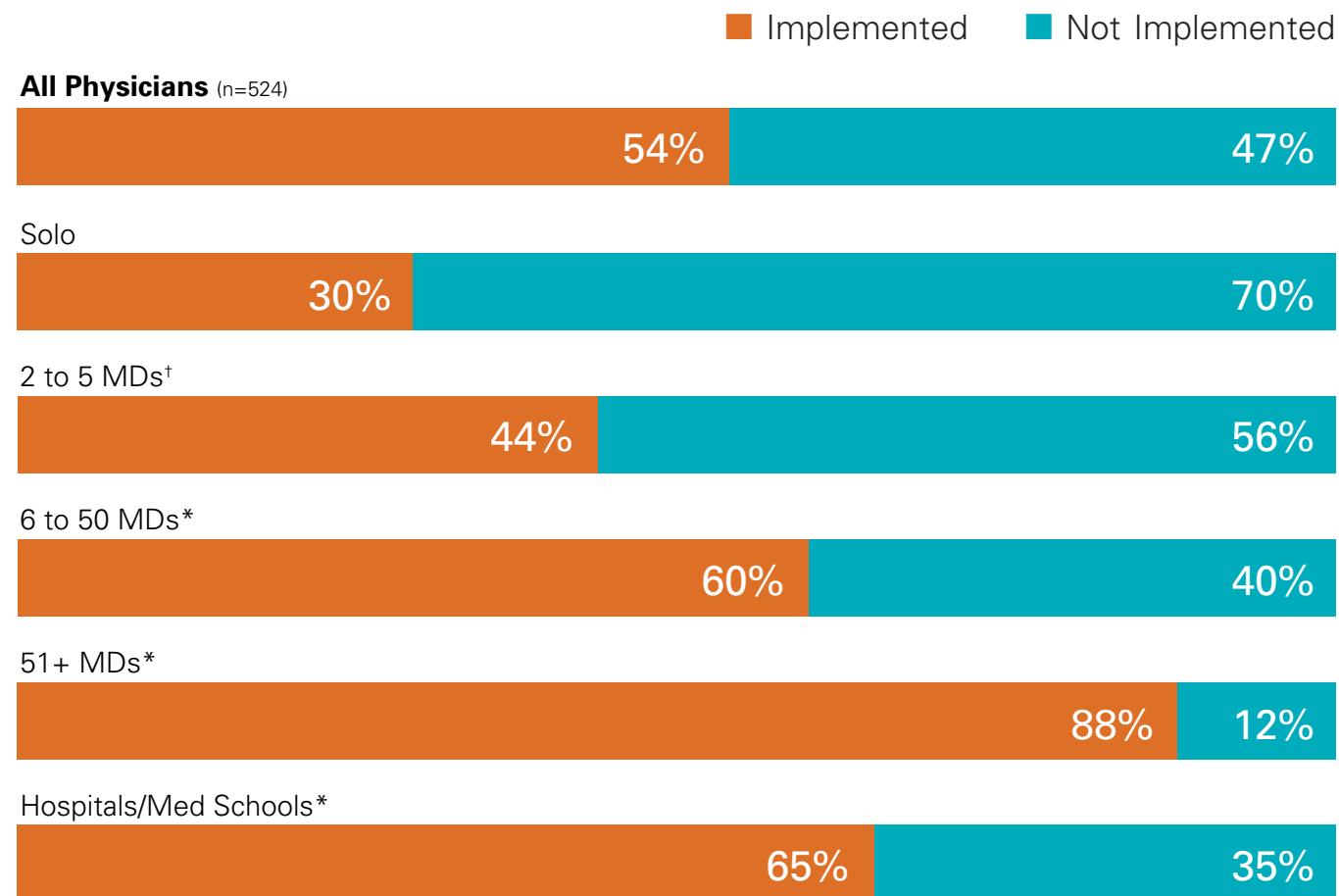
Notes: "Hospitals/Med Schools" includes physicians working in hospital- or medical school-owned office practices; hospital or medical school clinics or emergency rooms; or on hospital staff. Data for practices with 51 or more physicians and an additional category, "Community Health Centers and Other Practice Settings," are not presented because of low sample size. These observations are included in the total "n" listed after "All Practices."

Source: Center for Studying Health System Change, 2008.

## The State of HIT in California EHR Use

Physicians in larger practices were more likely than those in small and solo practices to report their practice had implemented technology to access clinical information such as patient notes, medication lists, or problem lists.

# Implementation of Electronic Ordering Systems for Clinical Tests, Overall and by Practice Category



\*Difference from "Solo" physicians category is statistically significant at p<0.01.

<sup>†</sup>Difference from "Solo" physicians category is statistically significant at p<0.05.

Notes: "Hospitals/Med Schools" includes physicians working in hospital- or medical school-owned office practices; hospital or medical school clinics or emergency rooms; or on hospital staff. An additional category, "Community Health Centers and Other Practice Settings," is not presented because of low sample size. These observations are included in the total "n" listed after "All Practices."

Source: Center for Studying Health System Change, 2008.

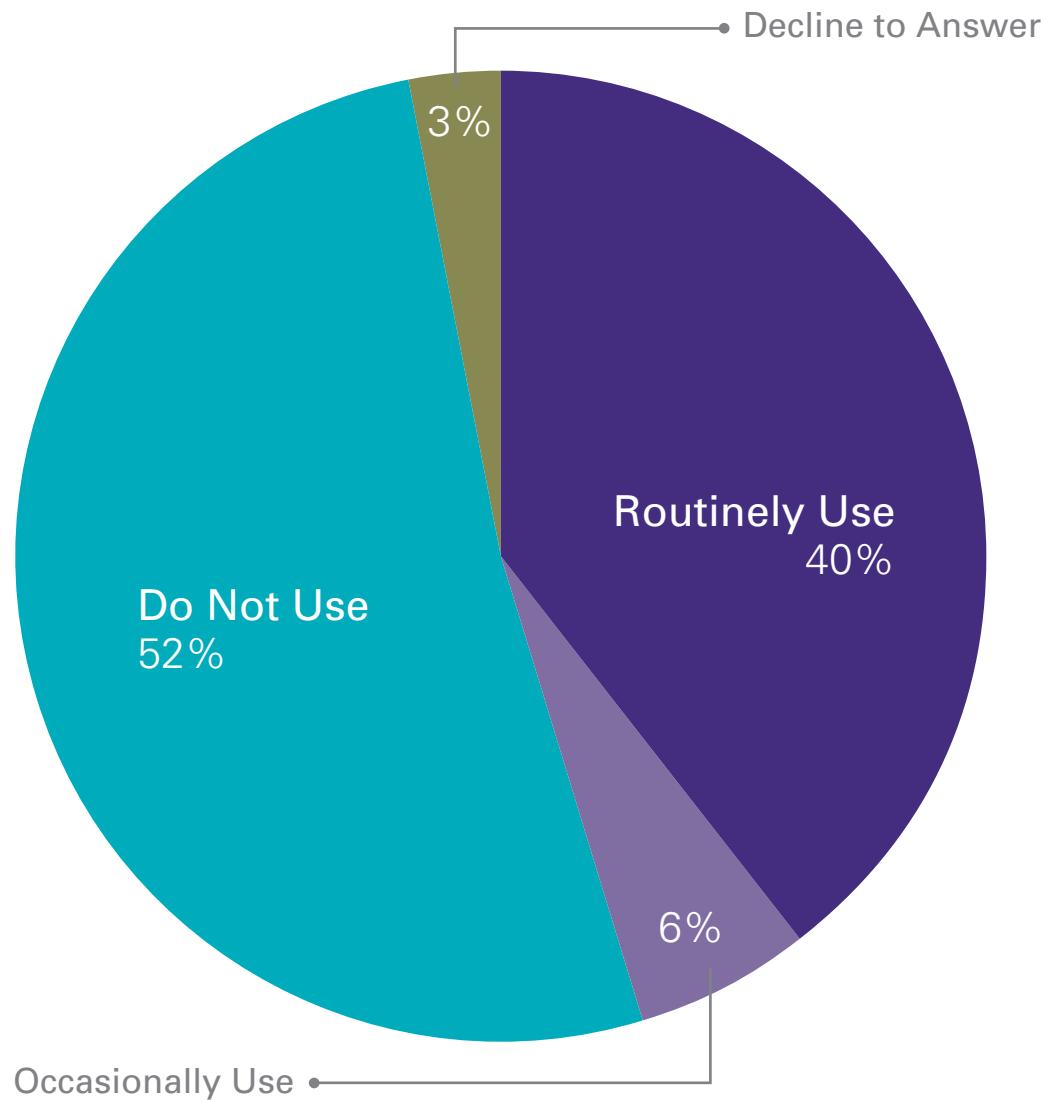
## The State of HIT in California Electronic Ordering Systems

Fifty-four percent of physicians reported their practices had implemented electronic ordering systems for lab, radiology, and diagnostic tests.

Implementation varied widely depending on the size of the practice; only 30 percent of physicians working in solo practices reported having electronic ordering systems in place, compared to 88 percent of physicians in practices with 51 or more physicians.

## Electronic Ordering of Lab Tests by PCPs

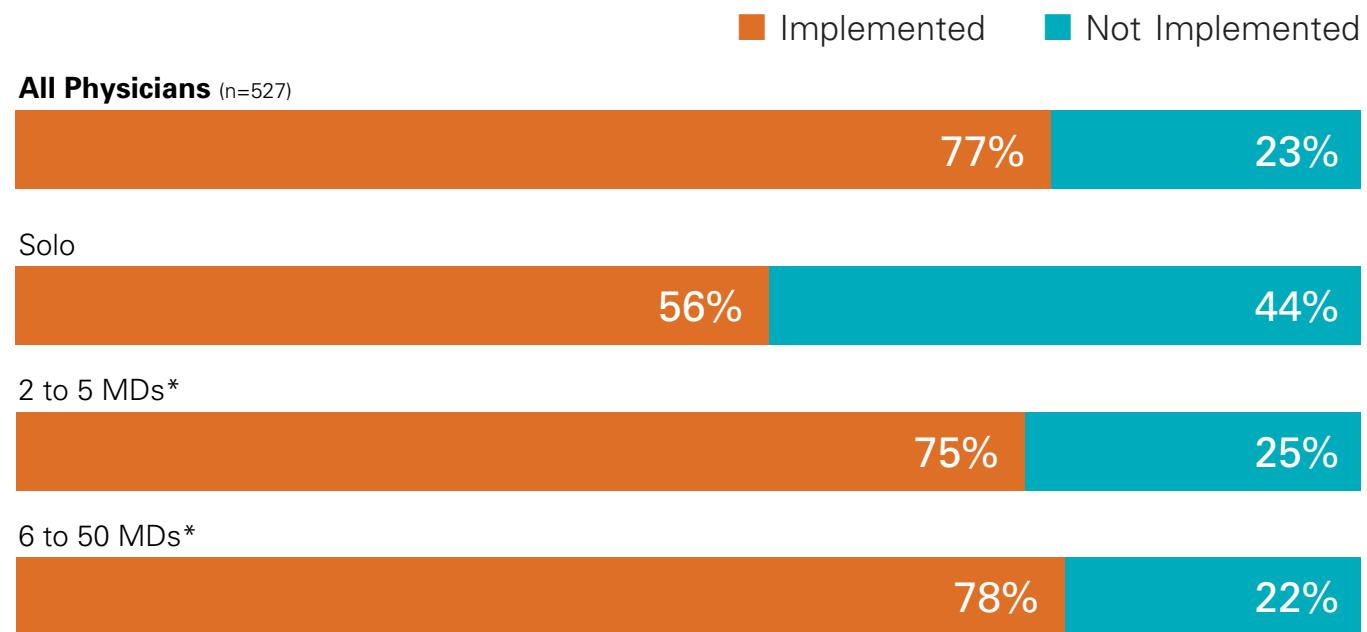
n=187



Source: Commonwealth Fund International Health Policy Survey of Primary Care Physicians, 2009.

A second survey found 46 percent of primary care physicians used electronic ordering of lab tests.

# Implementation of Technology to View Clinical Results, Overall and by Practice Size



\*Difference from "Solo" physicians category is statistically significant at p<0.01.

Notes: Data for practices with 51 or more physicians; hospital/med school data; and an additional category, "Community Health Centers and Other Practice Settings," are not presented because of low sample size. These observations are included in the total "n" listed after "All Practices." "Hospitals/Med Schools" includes physicians working in hospital- or medical school-owned office practices; hospital or medical school clinics or emergency rooms; or on hospital staff.

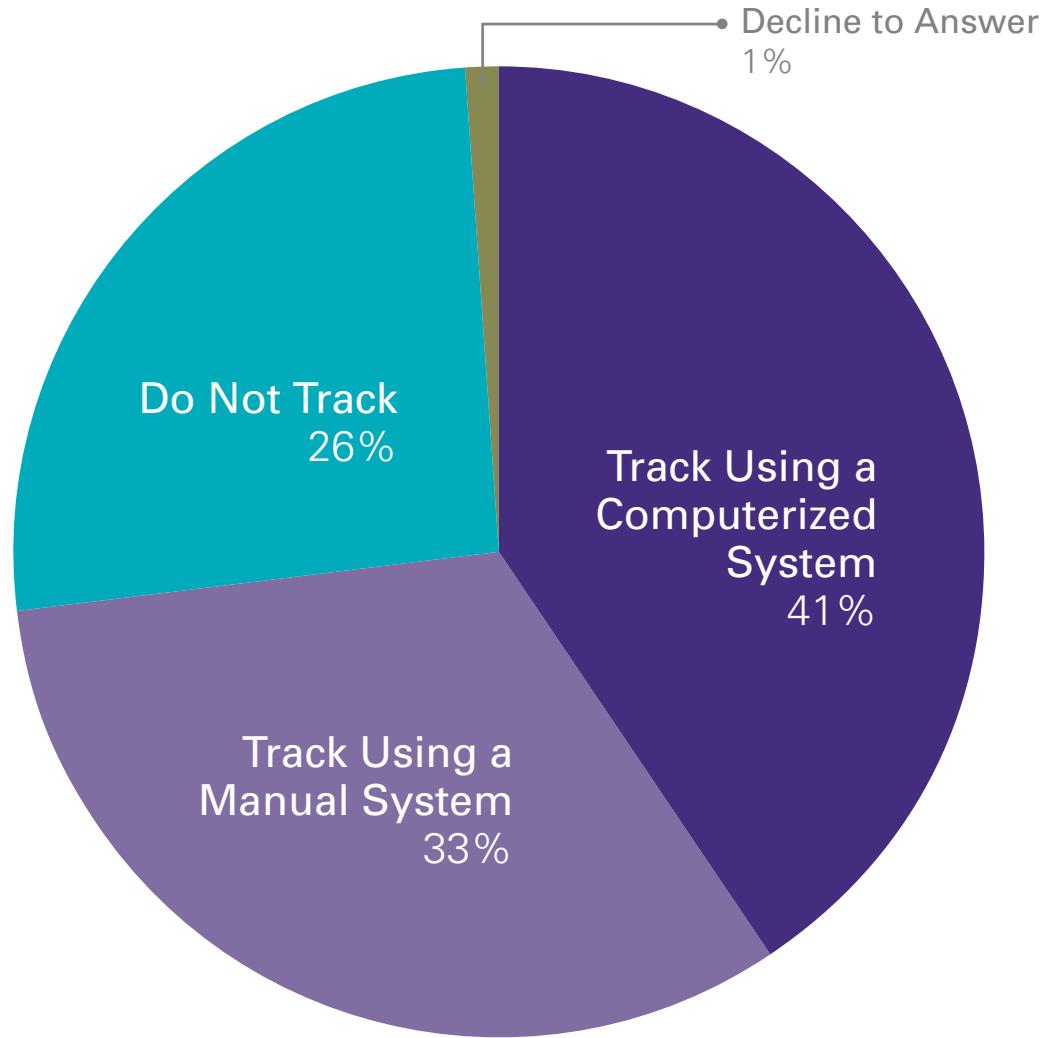
Source: Center for Studying Health System Change, 2008.

## The State of HIT in California Electronic Ordering Systems

Most physicians reported their practices had implemented technology to view lab, radiology, and other diagnostic test results.

## Electronic Tracking of Lab Test Orders by PCPs

n=187

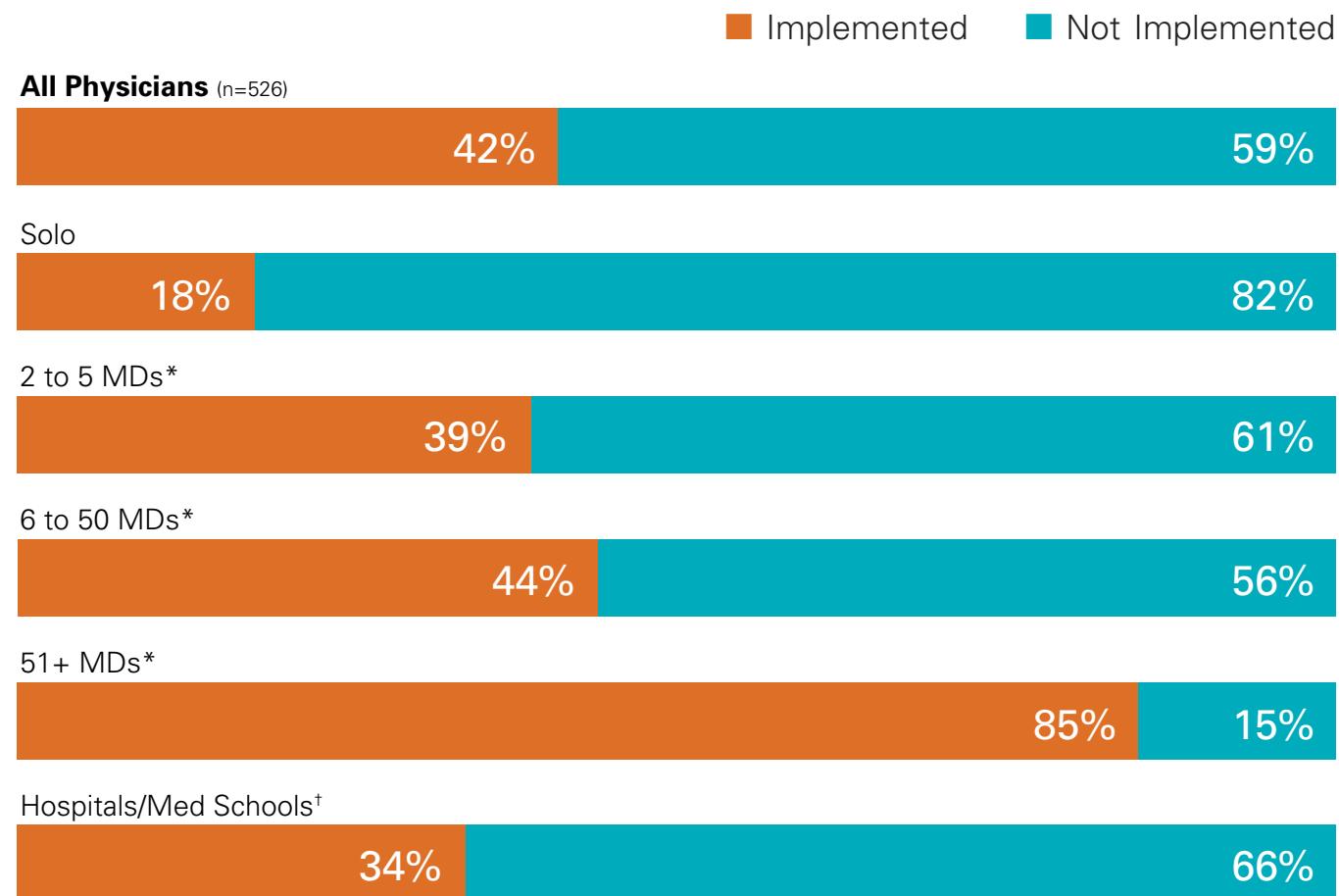


### The State of HIT in California Electronic Ordering Systems

Over a quarter of primary care physicians reported they did not track lab orders until results reach clinicians, either electronically or manually.

Source: Commonwealth Fund International Health Policy Survey of Primary Care Physicians, 2009.

# Implementation of Electronic Prescribing Technology, Overall and by Practice Category



\*Difference from "Solo" physicians category is statistically significant at p<0.01.

<sup>†</sup>Difference from "Solo" physicians category is statistically significant at p<0.05.

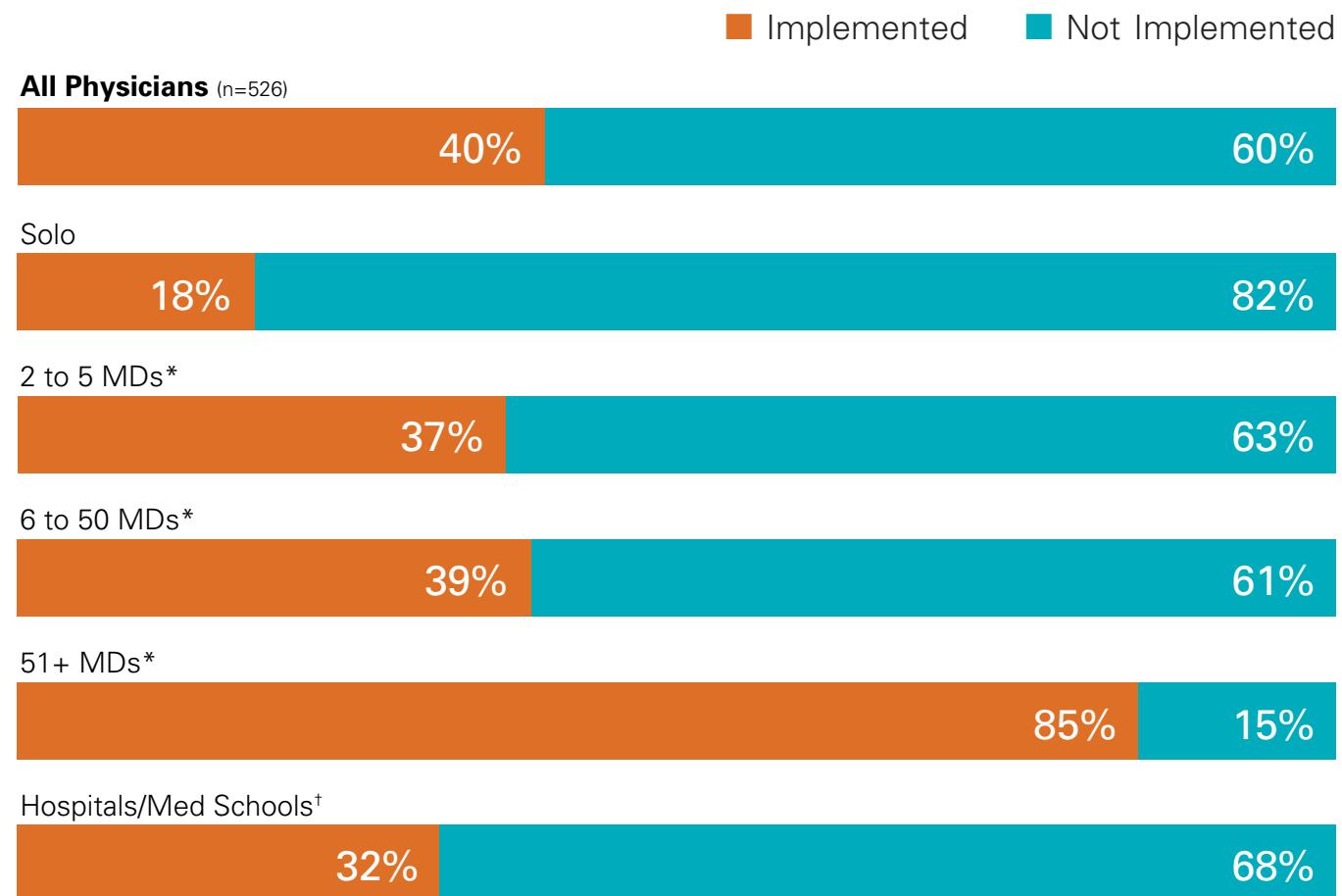
Notes: "Hospitals/Med Schools" includes physicians working in hospital- or medical school-owned office practices; hospital or medical school clinics or emergency rooms; or on hospital staff. An additional category, "Community Health Centers and Other Practice Settings," is not presented because of low sample size. These observations are included in the total "n" listed after "All Practices."

Source: Center for Studying Health System Change, 2008.

## The State of HIT in California Electronic Ordering Systems

Forty-two percent of physicians reported their practices had implemented technology for electronic prescribing. However, only 18 percent of solo practitioners reported their practices had implemented electronic prescribing technology.

# Implementation of Electronic Prescription Transmission Technology, Overall and by Practice Category



\*Difference from "Solo" physicians category is statistically significant at p<0.01.

<sup>†</sup>Difference from "Solo" physicians category is statistically significant at p<0.05.

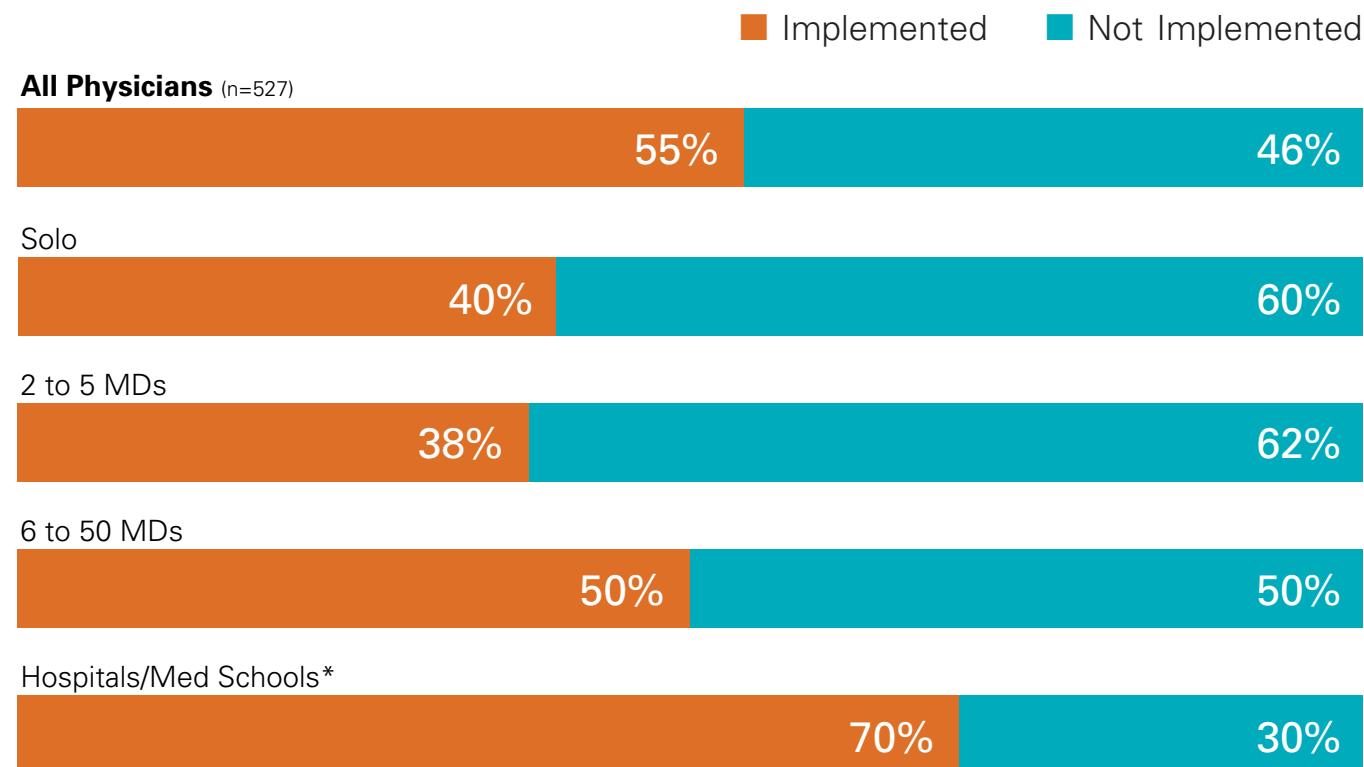
Notes: "Hospitals/Med Schools" includes physicians working in hospital- or medical school-owned office practices; hospital or medical school clinics or emergency rooms; or on hospital staff. An additional category, "Community Health Centers and Other Practice Settings," is not presented because of low sample size. These observations are included in the total "n" listed after "All Practices."

Source: Center for Studying Health System Change, 2008.

## The State of HIT in California Electronic Ordering Systems

Similar to the results reported for electronic prescribing, 40 percent of physicians reported their practices had implemented technology to transmit prescriptions to the pharmacy electronically.

## Implementation of Technology to Access Electronic Formulary Information, Overall and by Practice Category



\*Difference from "Solo" physicians category is statistically significant at p<0.01.

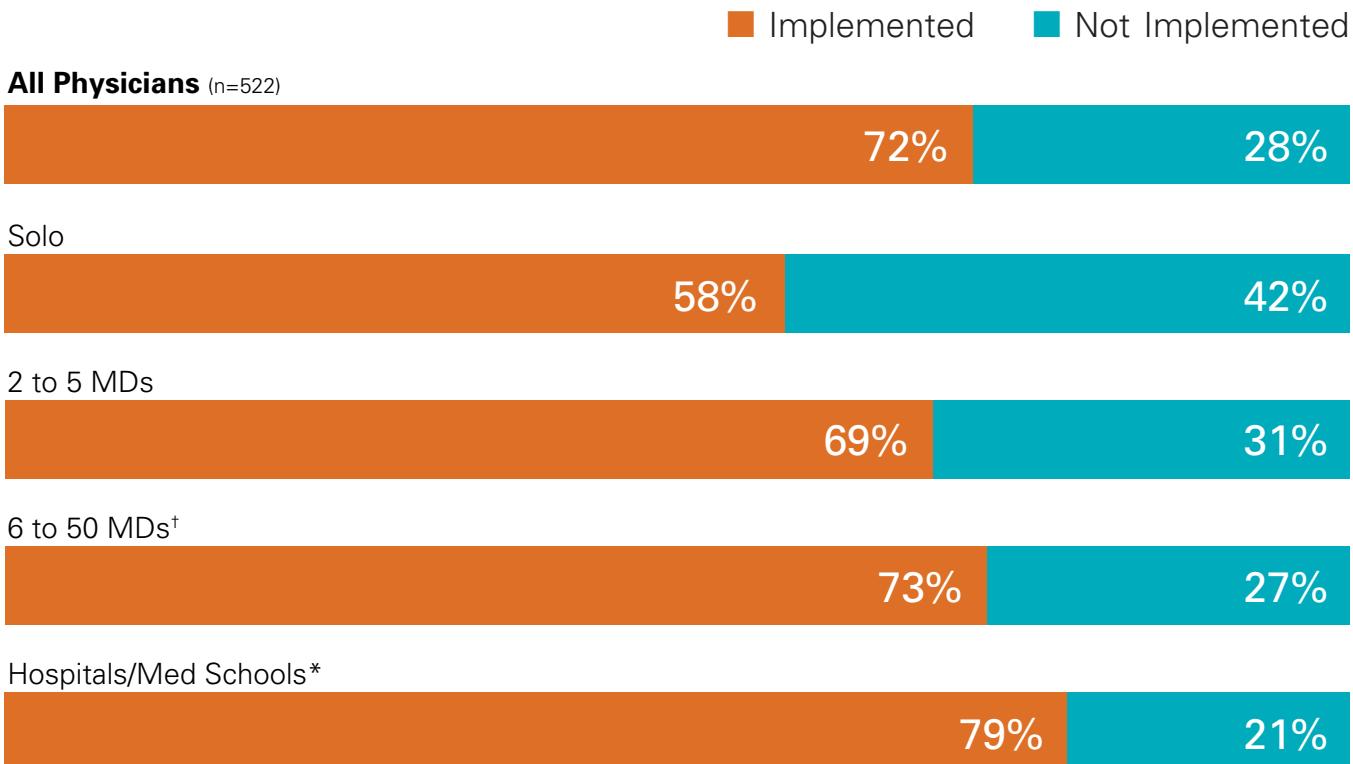
Notes: "Hospitals/Med Schools" includes physicians working in hospital- or medical school-owned office practices; hospital or medical school clinics or emergency rooms; or on hospital staff. Data for practices with 51 or more physicians and an additional category, "Community Health Centers and Other Practice Settings," are not presented because of low sample size. These observations are included in the total "n" listed after "All Practices."

Source: Center for Studying Health System Change, 2008.

### The State of HIT in California Electronic Ordering Systems

While fifty-five percent of California physicians reported their practices had implemented systems to access formulary information electronically, only 50 percent of those physicians reported routinely using those electronic systems.

# Implementation of Decision Support Tools, Overall and by Practice Category



\*Difference from "Solo" physicians category is statistically significant at p<0.01.

<sup>†</sup>Difference from "Solo" physicians category is statistically significant at p<0.05.

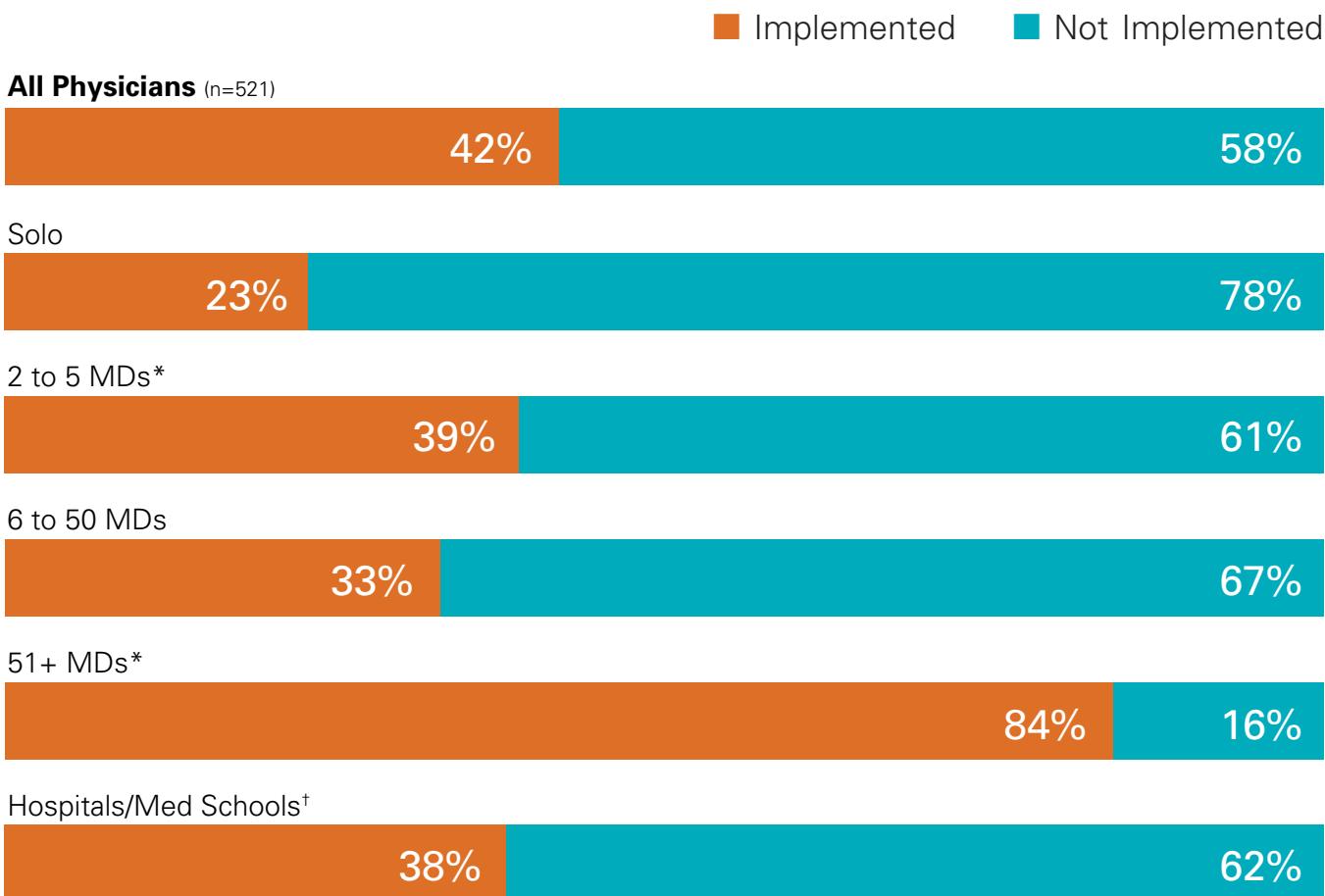
Notes: "Hospitals/Med Schools" includes physicians working in hospital- or medical school-owned office practices; hospital or medical school clinics or emergency rooms; or on hospital staff. Data for practices with 51 or more physicians and an additional category, "Community Health Centers and Other Practice Settings," are not presented because of low sample size. These observations are included in the total "n" listed after "All Practices."

Source: Center for Studying Health System Change, 2008.

## The State of HIT in California Decision Support Tools

Decision support tools for diagnostic and treatment recommendations have been widely implemented, with 72 percent of physicians reporting their practices had implemented these tools.

# Implementation of Automated Reminder Systems for Preventive Services, Overall and by Practice Category



\*Difference from "Solo" physicians category is statistically significant at p<0.01.

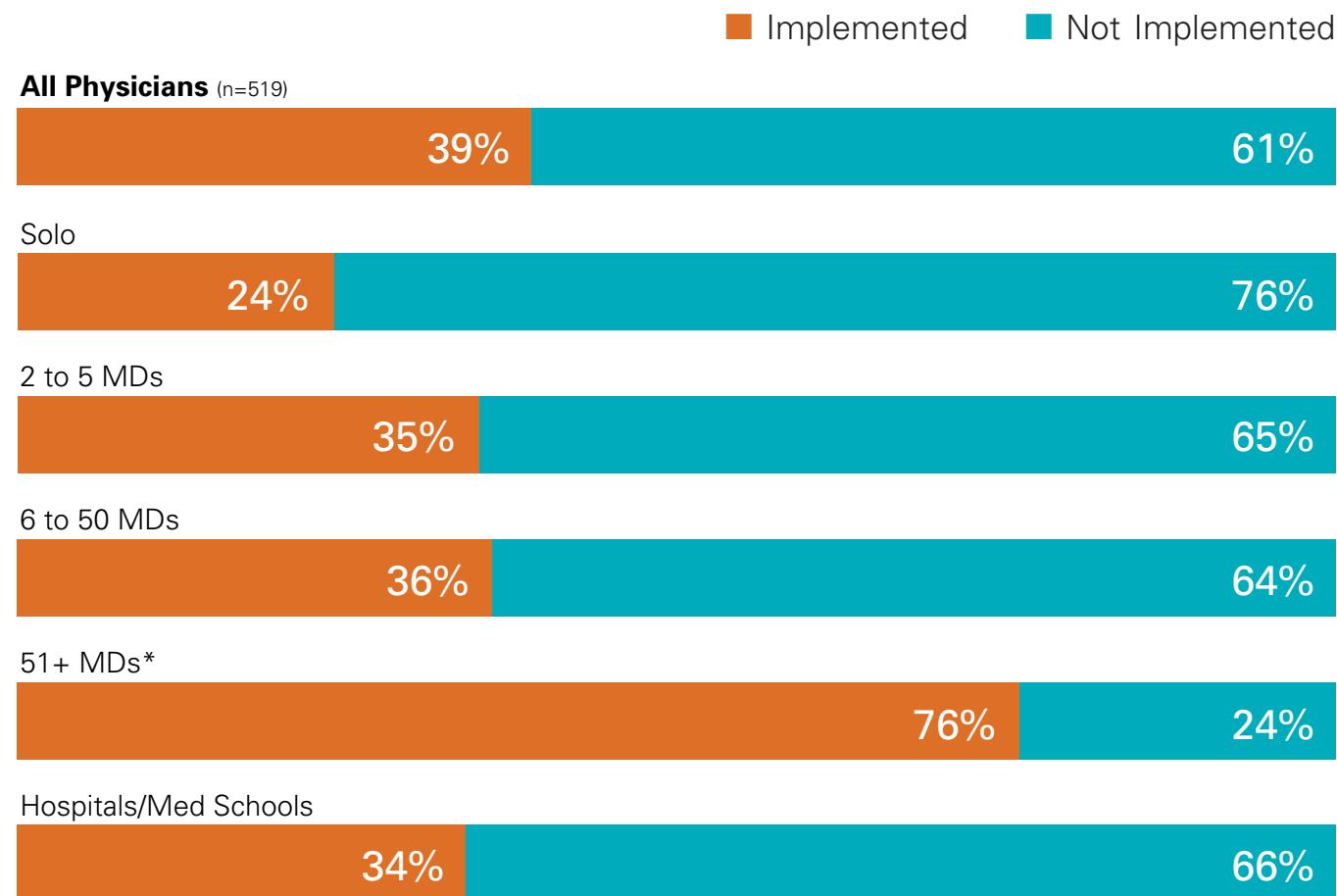
<sup>†</sup>Difference from "Solo" physicians category is statistically significant at p<0.05.

Notes: "Hospitals/Med Schools" includes physicians working in hospital- or medical school-owned office practices; hospital or medical school clinics or emergency rooms; or on hospital staff. An additional category, "Community Health Centers and Other Practice Settings," is not presented because of low sample size. These observations are included in the total "n" listed after "All Practices."

Source: Center for Studying Health System Change, 2008.

Physicians in large practices of more than 51 physicians were more likely than those in smaller and solo practices to report their practices had implemented technology to generate reminders for clinicians about preventive services.

## Implementation of Automated Reminder Systems for Other Patient Follow-Up, Overall and by Practice Category



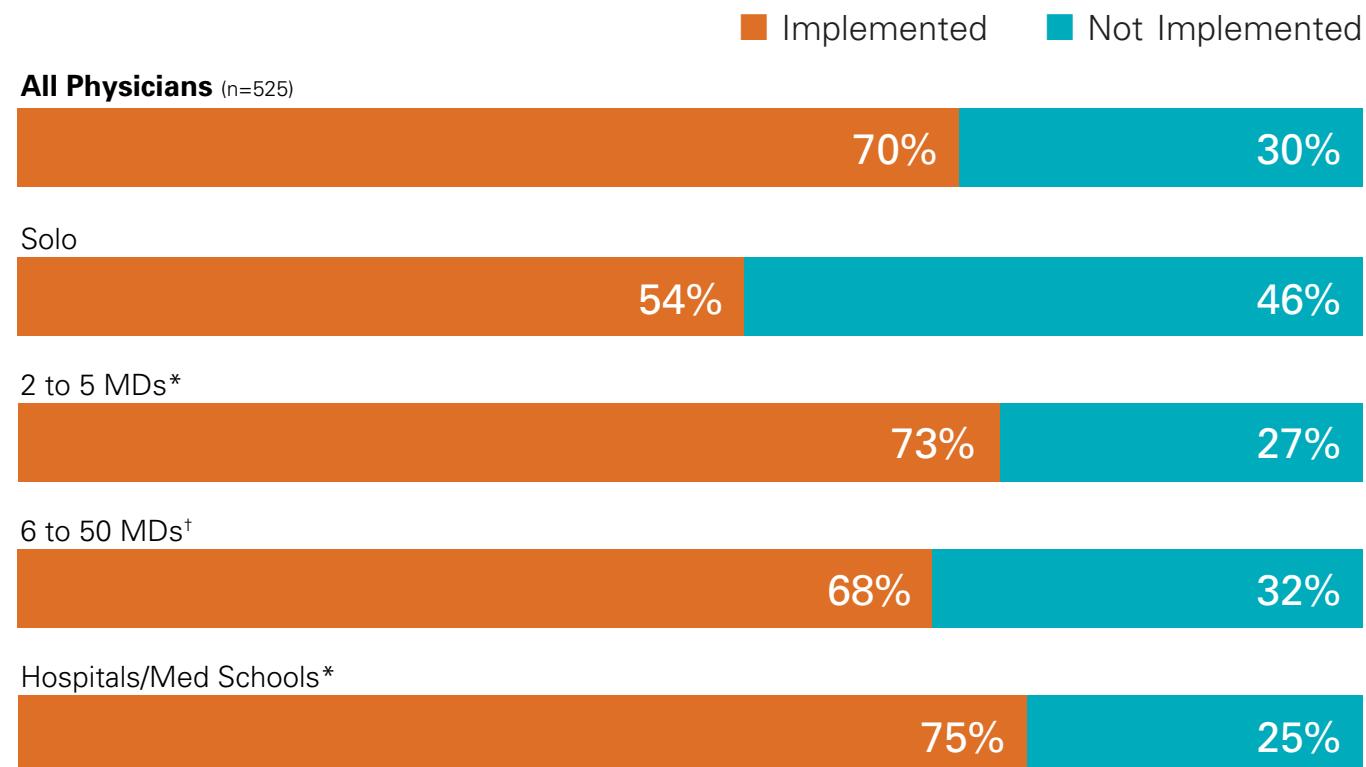
\*Difference from "Solo" physicians category is statistically significant at p<0.01.

Notes: "Hospitals/Med Schools" includes physicians working in hospital- or medical school-owned office practices; hospital or medical school clinics or emergency rooms; or on hospital staff. An additional category, "Community Health Centers and Other Practice Settings," is not presented because of low sample size. These observations are included in the total "n" listed after "All Practices."

Source: Center for Studying Health System Change, 2008.

Thirty-nine percent of physicians reported their practices had implemented automated systems to generate patient follow-up reminders for clinicians.

# Implementation of Decision Support Tools for Rx Orders, Overall and by Practice Category



\*Difference from "Solo" physicians category is statistically significant at p<0.01.

†Difference from "Solo" physicians category is statistically significant at p<0.05.

Notes: "Hospitals/Med Schools" includes physicians working in hospital- or medical school-owned office practices; hospital or medical school clinics or emergency rooms; or on hospital staff. Data for practices with 51 or more physicians and an additional category, "Community Health Centers and Other Practice Settings," are not presented because of low sample size. These observations are included in the total "n" listed after "All Practices."

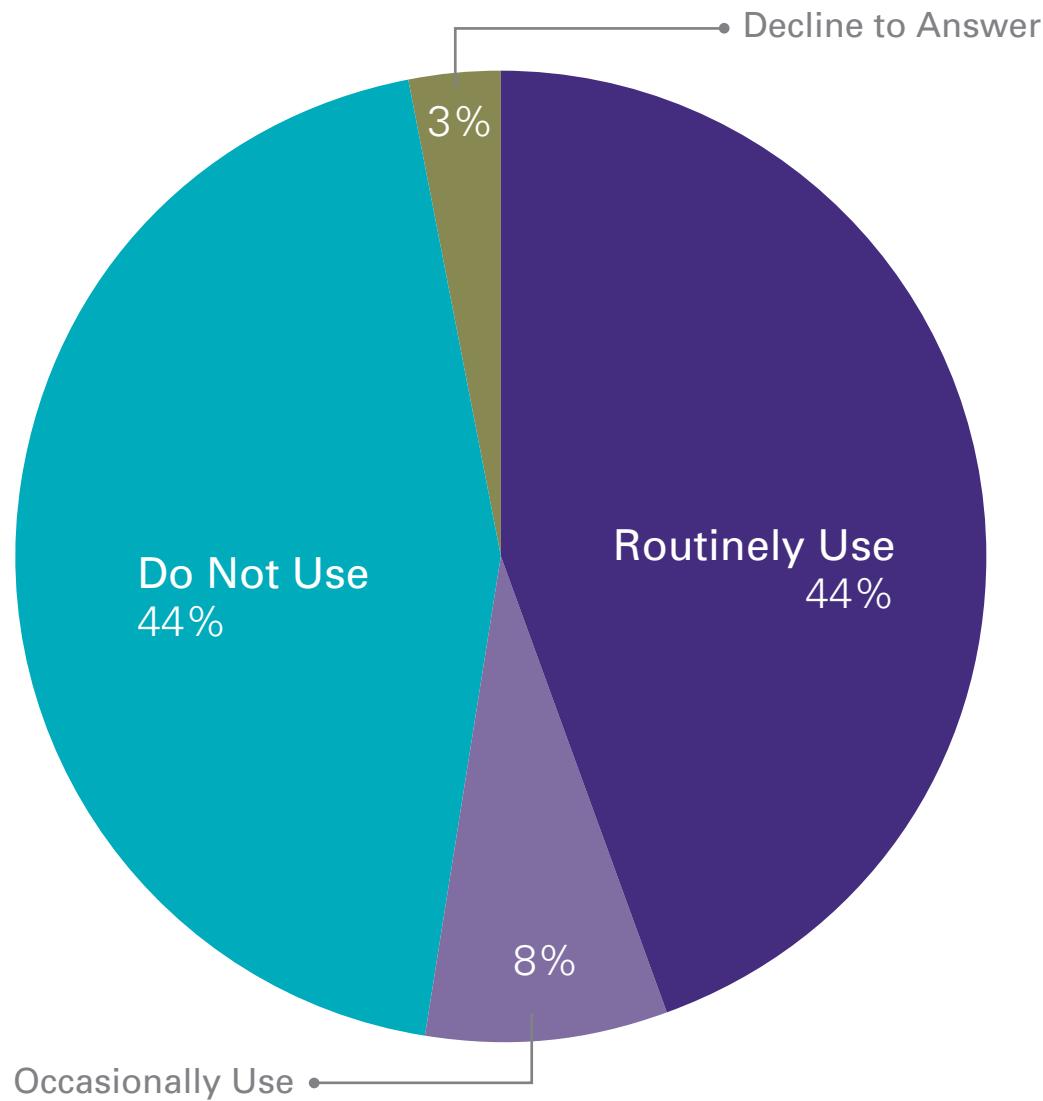
Source: Center for Studying Health System Change, 2008.

## The State of HIT in California Decision Support Tools

Seventy percent of physicians reported their practices had implemented decision support tools to obtain information on potential patient drug interactions with other drugs, drug allergies, and/or other patient conditions, in order to reduce medication errors.

## Use of Decision Support Tools for Rx Orders by PCPs

n=187

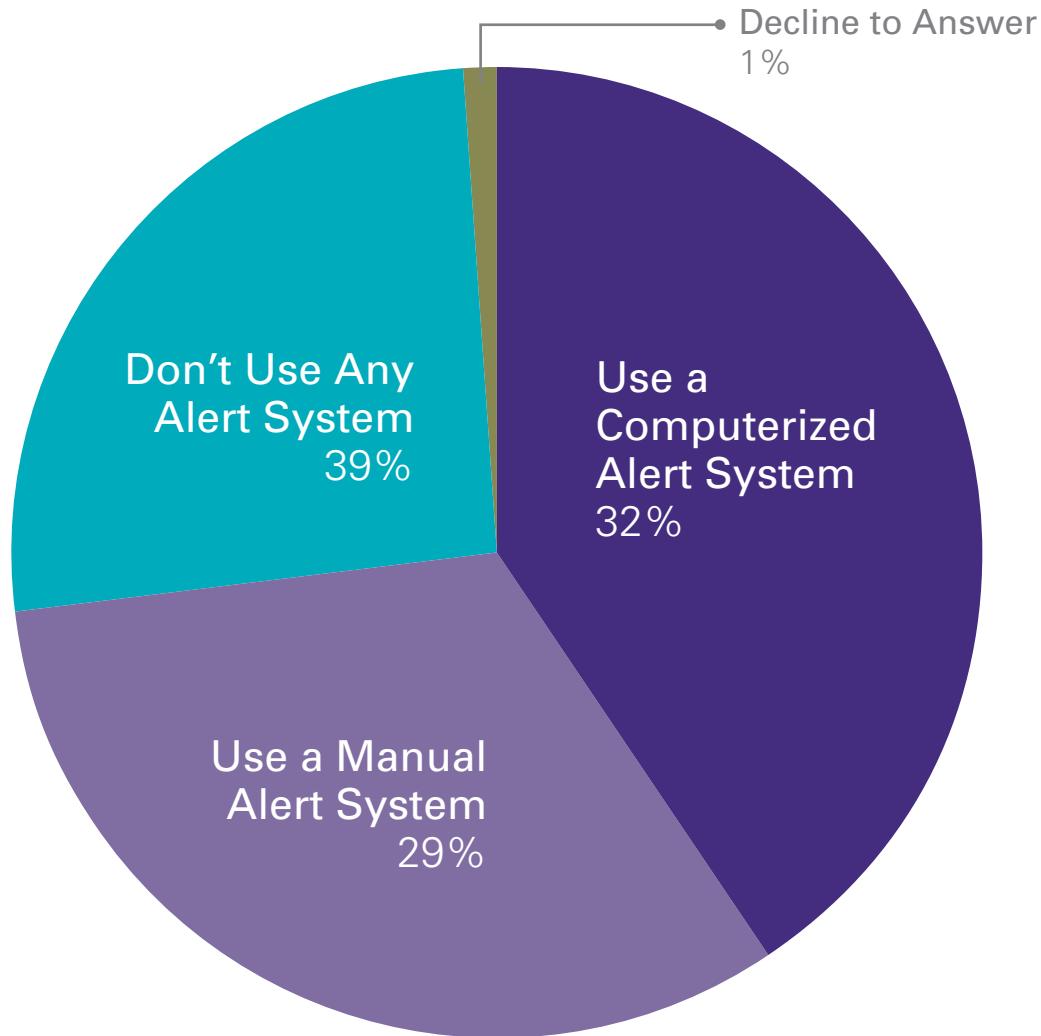


Source: Commonwealth Fund International Health Policy Survey of Primary Care Physicians, 2009.

A second survey of primary care physicians found that use of decision support tools for drug dose and drug interaction warnings was slightly less prevalent, with 52 percent of physicians reporting that they used these types of electronic alerts.

## Use of Automated Alerts to Provide Patients With Test Results by PCPs

n=187

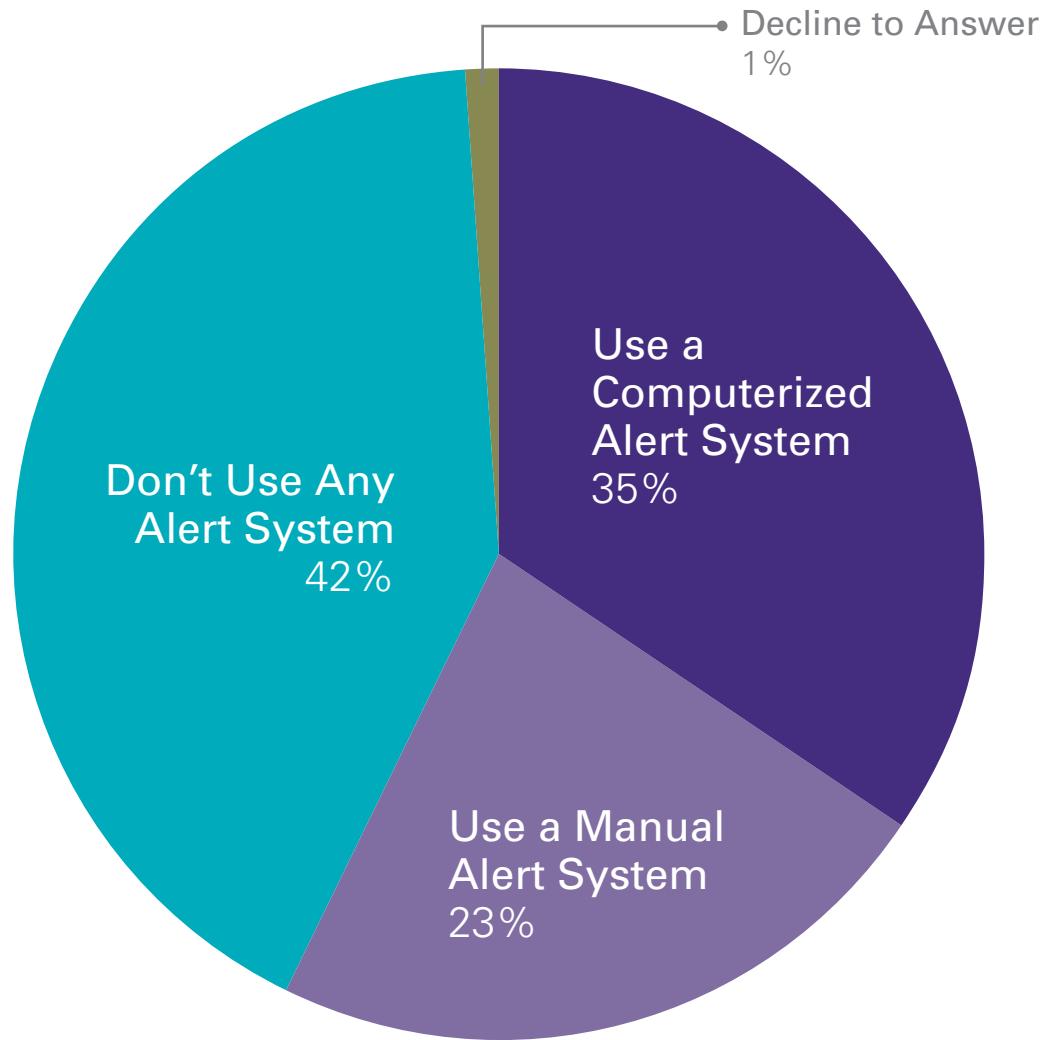


Source: Commonwealth Fund International Health Policy Survey of Primary Care Physicians, 2009.

Thirty-two percent of primary care physicians reported receiving receive computerized alerts to provide patients with test results, while 29 percent of physicians said they relied on a manual system.

## Use of Guideline-based Alerts for Interventions and Tests by PCPs

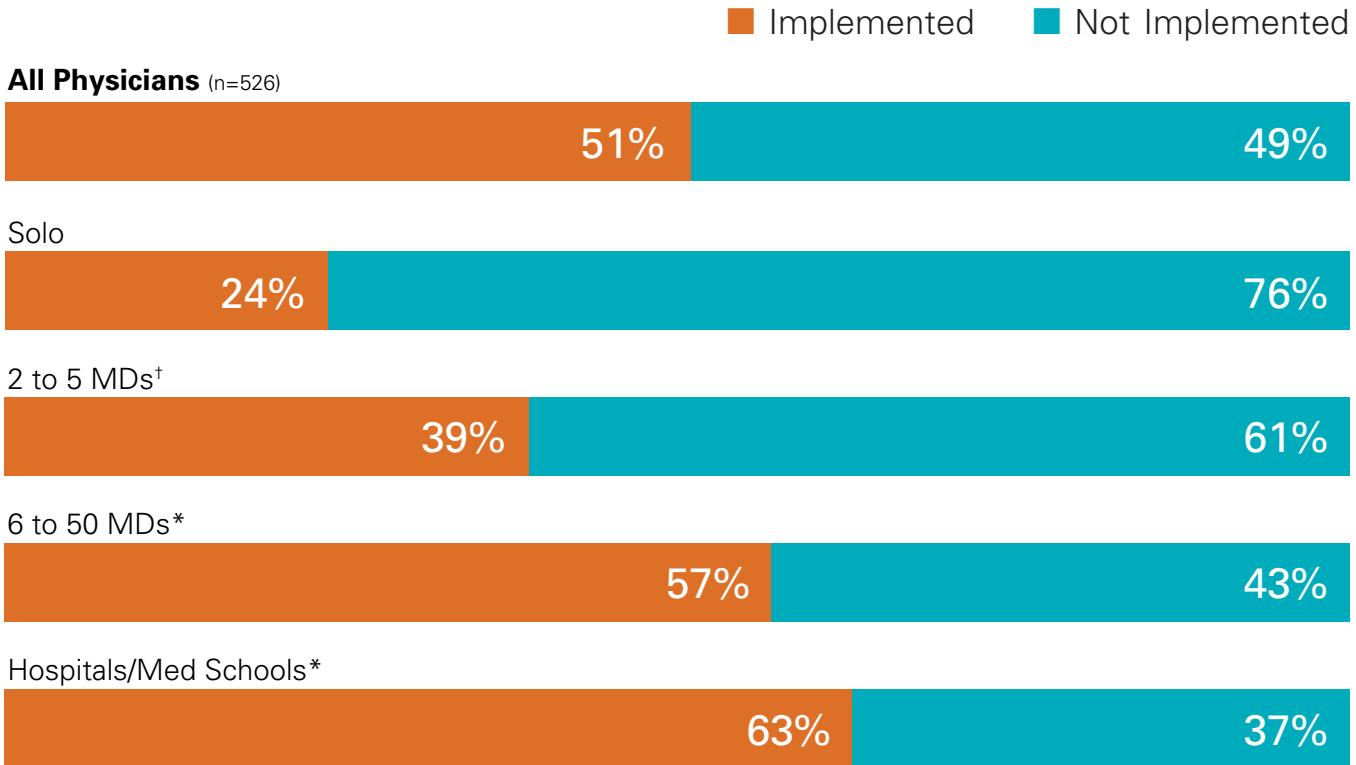
n=187



Source: Commonwealth Fund International Health Policy Survey of Primary Care Physicians, 2009.

Thirty-five percent of primary care physicians reported receiving computerized reminders to increase compliance with guidelines.

# Implementation of Electronic Clinical Data Exchange Systems with Other Physicians, Overall and by Practice Category



\*Difference from "Solo" physicians category is statistically significant at p<0.01.

†Difference from "Solo" physicians category is statistically significant at p<0.05.

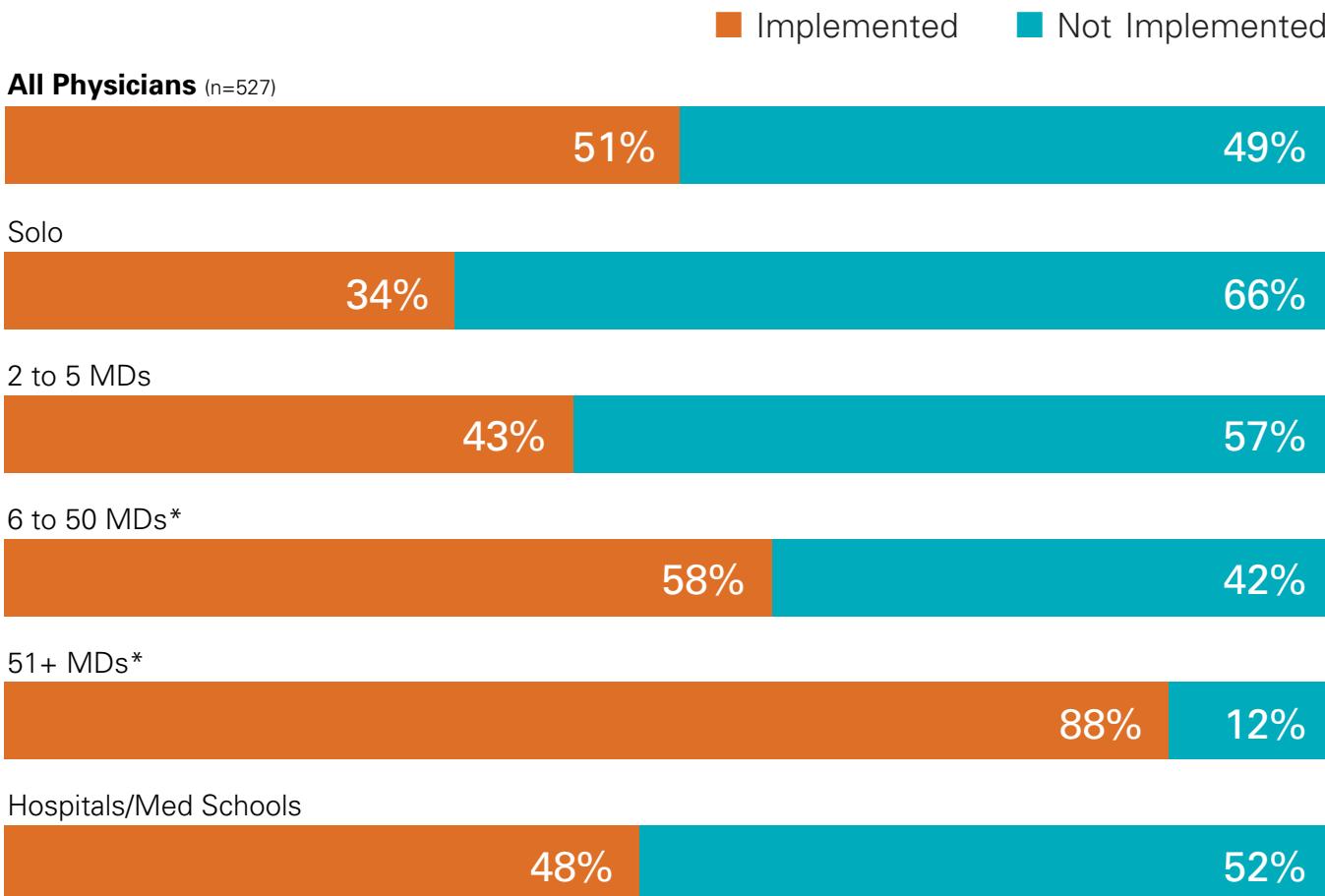
Notes: "Hospitals/Med Schools" includes physicians working in hospital- or medical school-owned office practices; hospital or medical school clinics or emergency rooms; or on hospital staff. Data for practices with 51 or more physicians and an additional category, "Community Health Centers and Other Practice Settings," are not presented because of low sample size. These observations are included in the total "n" listed after "All Practices."

Source: Center for Studying Health System Change, 2008.

## The State of HIT in California Clinical Data Exchange

A little over half of physicians surveyed reported their practice had implemented technology to exchange clinical data electronically with other physicians.

# Implementation of Electronic Clinical Data Exchange Systems With Hospitals and Laboratories, Overall and by Practice Category



\*Difference from "Solo" physicians category is statistically significant at p<0.01.

Notes: "Hospitals/Med Schools" includes physicians working in hospital- or medical school-owned office practices; hospital or medical school clinics or emergency rooms; or on hospital staff. An additional category, "Community Health Centers and Other Practice Settings," is not presented because of low sample size. These observations are included in the total "n" listed after "All Practices."

Source: Center for Studying Health System Change, 2008.

## The State of HIT in California Clinical Data Exchange

Physicians in large practices (those with 51 or more physicians) were especially likely to report that their practice had implemented electronic systems to exchange clinical data with hospitals and laboratories.

# Receipt of Discharge Information by PCPs

## Time Frame (n=187)

Less than 48 Hours

34%

2 to 4 Days

31%

5 to 14 Days

18%

15 to 30 Days

8%

More than 30 Days

<0.5%

Rarely/Never Receive Adequate Report

6%

Decline to Answer

4%

## Delivery Method (n=187)

Fax

47%

Mail

30%

Email

15%

Remote Access

15%

Other

13%

Decline to Answer

1%

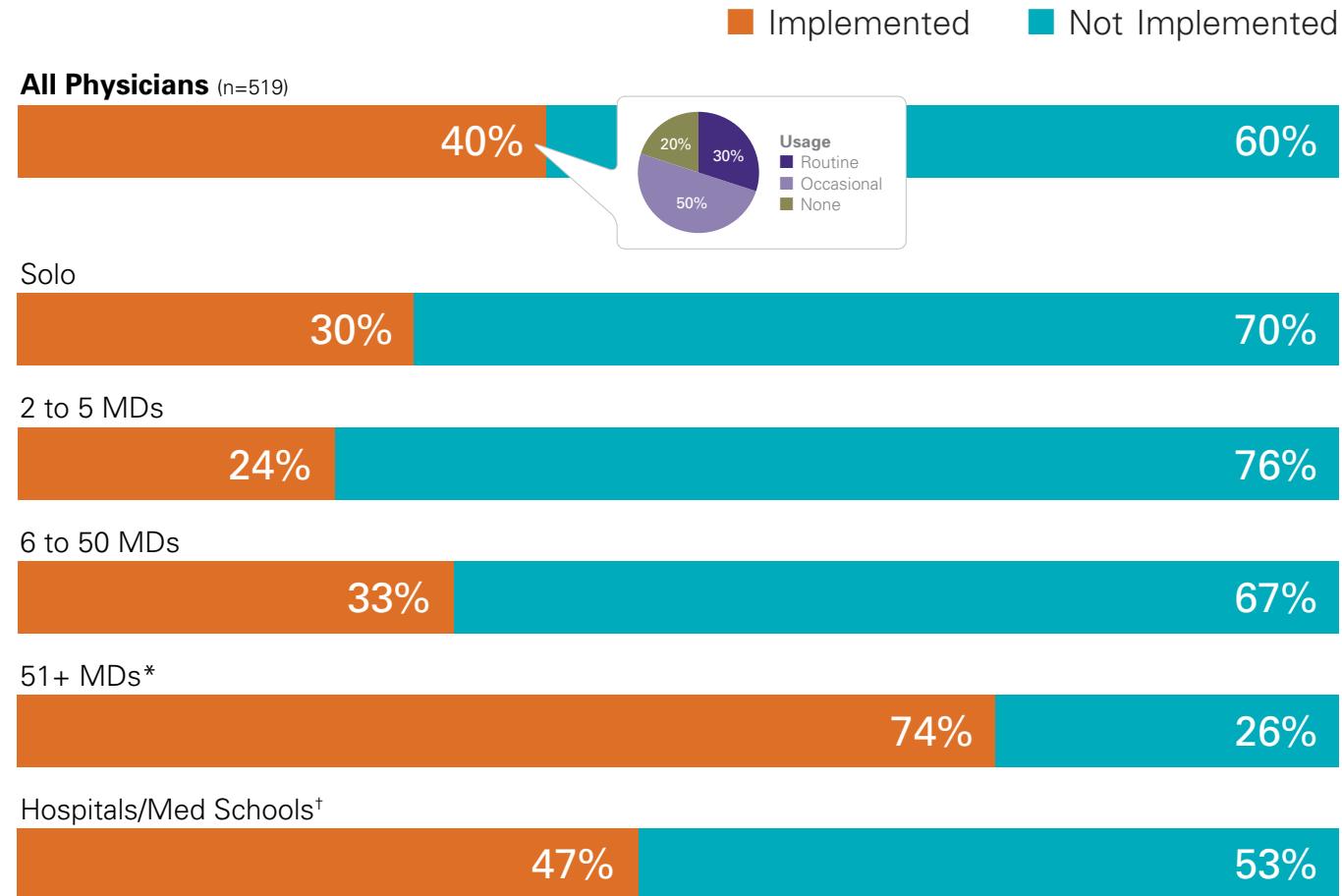
## The State of HIT in California Clinical Data Exchange

Only 34 percent of primary care physicians reported receiving discharge information on their patients within 48 hours of discharge, including information on recommended follow-up care and other information they need to continue managing the patient. Seventy-seven percent of physicians reported receiving this information via fax or mail.

Note: Respondents may choose more than one response.

Source: Commonwealth Fund International Health Policy Survey of Primary Care Physicians, 2009.

# Implementation and Use of Email To/From Patients About Clinical Issues, Overall and by Practice Category



\*Difference from "Solo" physicians category is statistically significant at p<0.01.

<sup>†</sup>Difference from "Solo" physicians category is statistically significant at p<0.05.

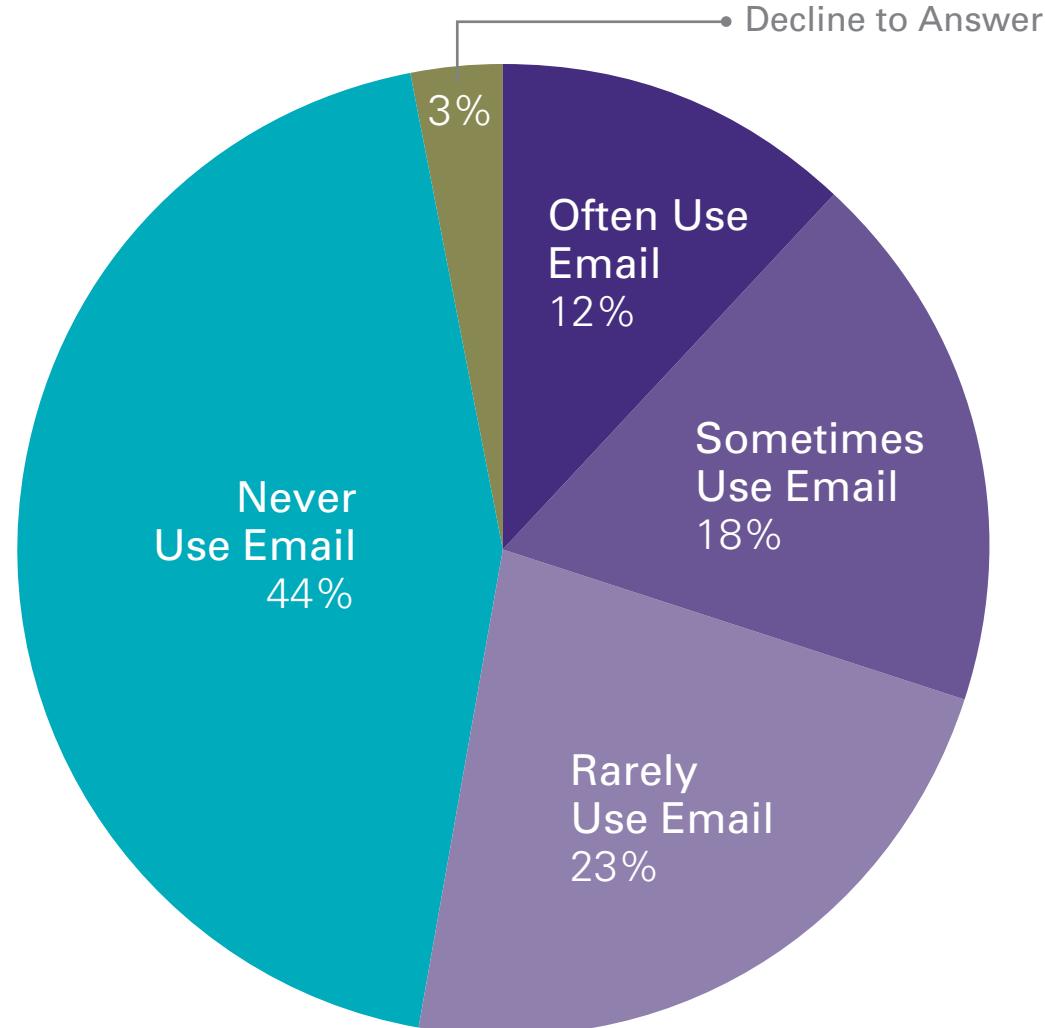
Notes: "Hospitals/Med Schools" includes physicians working in hospital- or medical school-owned office practices; hospital or medical school clinics or emergency rooms; or on hospital staff. An additional category, "Community Health Centers and Other Practice Settings," is not presented because of low sample size. These observations are included in the total "n" listed after "All Practices."

Source: Center for Studying Health System Change, 2008.

While 40 percent of physicians reported their practices had implemented systems allowing them to communicate with patients via email, only 30 percent of those physicians reported routinely doing so.

## Use of Email To/From Patients About Clinical or Administrative Issues by PCPs

n=187

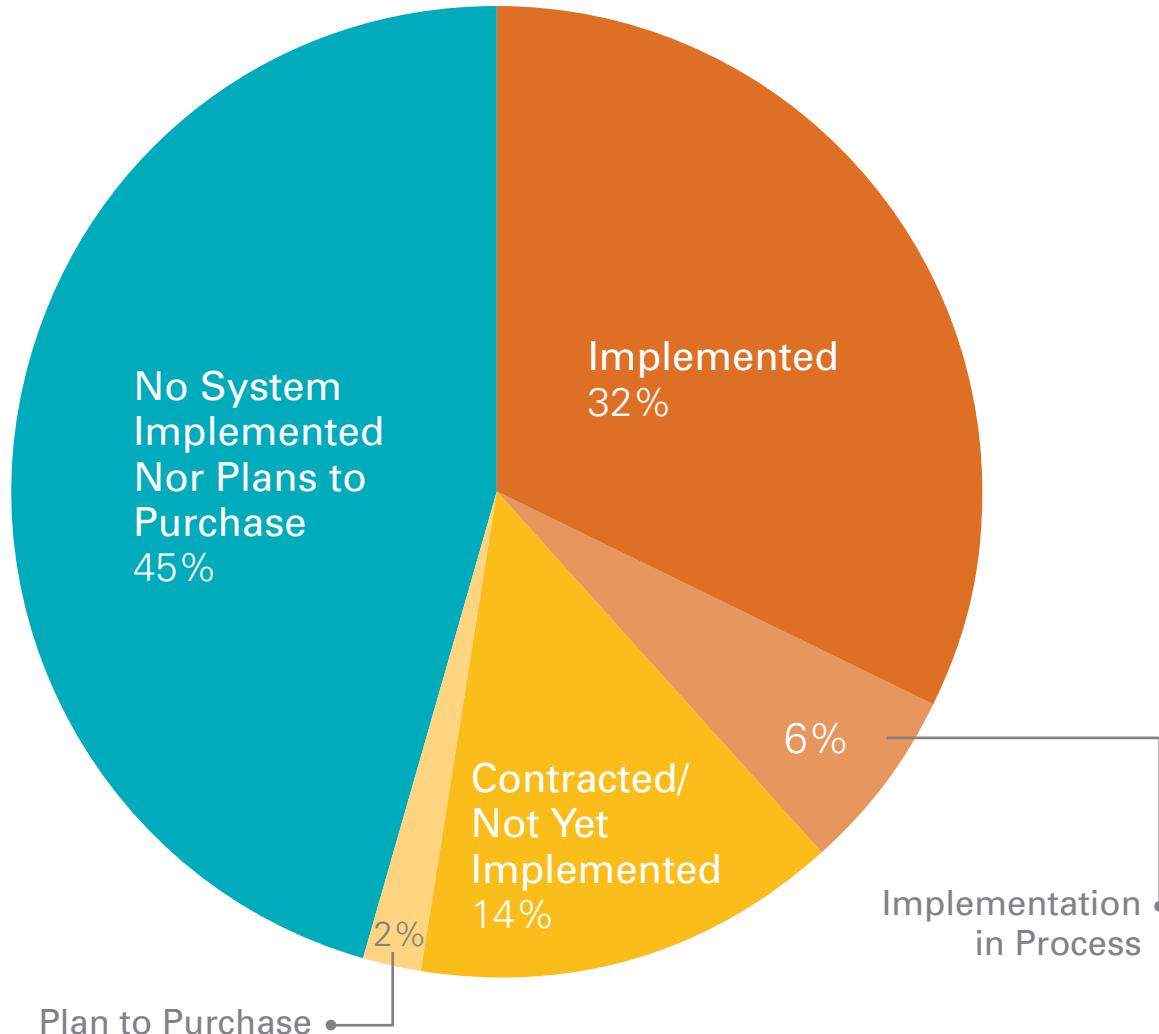


Source: Commonwealth Fund International Health Policy Survey of Primary Care Physicians, 2009.

A second survey also found a low level of penetration of email technology, with 44 percent of primary care physicians reporting never emailing with patients for either clinical or administrative purposes.

# Implementation of Electronic Clinical Documentation Systems at Hospitals

n=386



## The State of HIT in California Hospitals

Thirty-two percent of hospitals reported having an electronic clinical documentation system in place. An additional 25 percent reported being in the process of implementing one or contracting to have one built.

Source: HIMSS Analytics™ Database, 2010.

# Prevalence of Electronic Clinical Documentation Functions at Hospitals

n=191

■ Fully Implemented in at Least One Unit   ■ Began Implementation or Resources Identified\*   ■ No Implementation and No Specific Plans

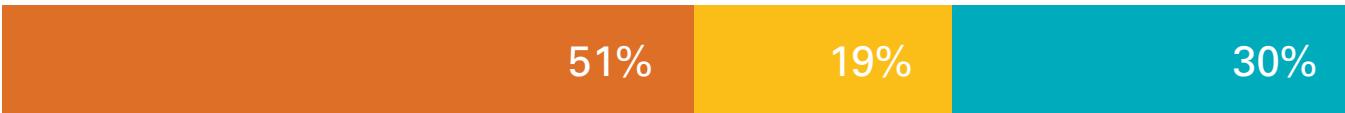
Medication Lists



Physician Notes



Problem Lists



\*Those who reported that they were either "beginning to implement in at least one unit" or "have resources identified to implement in the next year."

Source: Authors' (Jha et al.) analyses of data from the 2008 AHA Annual HIT Supplement of Acute Care Hospitals in the U.S.

## The State of HIT in California Hospitals

Of the various clinical documentation functions, medication lists are most commonly implemented, with 65 percent of hospitals reporting they had fully implemented medication lists in at least one unit.

## Prevalence of EHR Functions at Hospitals

n=191

■ Fully Implemented in at Least One Unit   ■ Began Implementation or Resources Identified\*   ■ No Implementation and No Specific Plans

Lab Reports



Radiology Images



Radiology Reports



### The State of HIT in California Hospitals

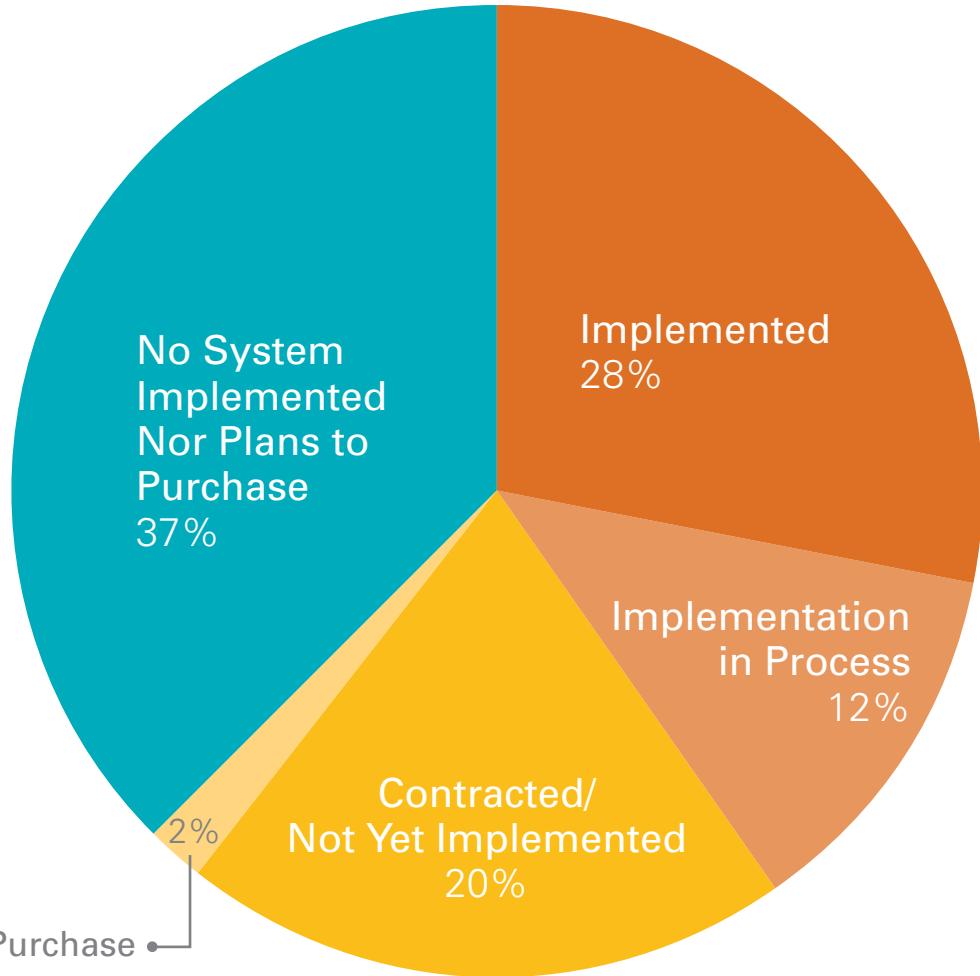
Lab reporting is the most commonly implemented EHR function, with nearly 90 percent of hospitals reporting they had fully implemented lab reporting in at least one unit.

\*Those who reported that they were either "beginning to implement in at least one unit" or "have resources identified to implement in the next year."

Source: Authors' (Jha et al.) analyses of data from the 2008 AHA Annual HIT Supplement of Acute Care Hospitals in the U.S.

# Implementation of Computerized Order Entry Systems at Hospitals

n=386

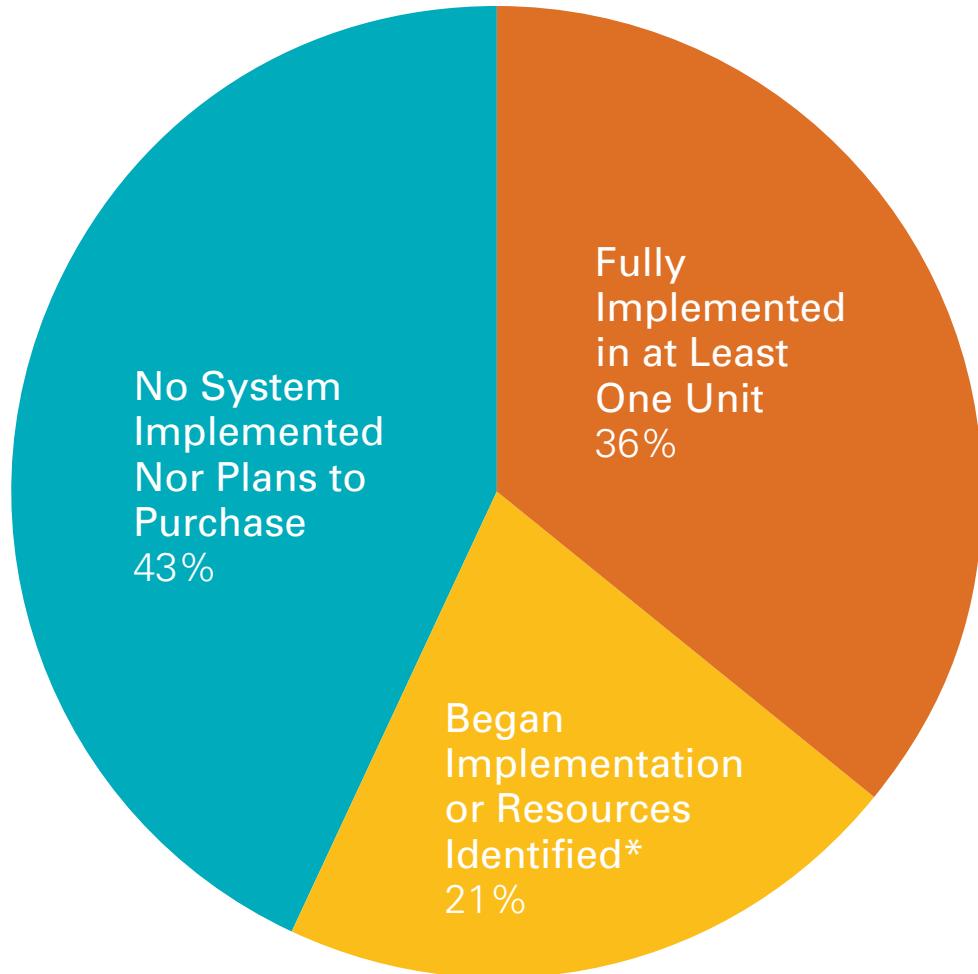


Source: HIMSS Analytics™ Database, 2010.

Forty percent of hospitals reporting having a computerized order entry system currently installed or being in the process of installing one.

# Implementation of Computerized Order Entry Systems for Medications at Hospitals

n=191



\*Those who reported that they were either "beginning to implement in at least one unit" or "have resources identified to implement in the next year."

Source: Authors' (Jha et al.) analyses of data from the 2008 AHA Annual HIT Supplement of Acute Care Hospitals in the U.S.

## The State of HIT in California Hospitals

Thirty-six percent of hospitals reported having implemented a computerized order entry system for medications in at least one unit.

# Implementation of Decision Support Systems at Hospitals

n=386

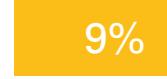
Implemented



Implementation in Process



Contracted/Not Yet Implemented



Plan to Purchase



No System Implemented Nor Plans to Purchase



## The State of HIT in California Hospitals

Nearly 90 percent of hospitals reported having installed decision support systems or being in the process of implementing one.

Note: Individual hospitals may have multiple installations of decision support systems, so the total may exceed 100 percent.

Source: HIMSS Analytics™ Database, 2010.

# Prevalence of Decision Support Functions Implemented at Hospitals

n=191    ■ Fully Implemented in at Least One Unit

■ Began Implementation or Resources Identified\*

■ No Implementation and No Specific Plans

## Clinical Guidelines



## Clinical Reminders



## Drug Allergy Alerts



## Drug-Drug Interactions



## Drug Dosing Support



## The State of HIT in California Hospitals

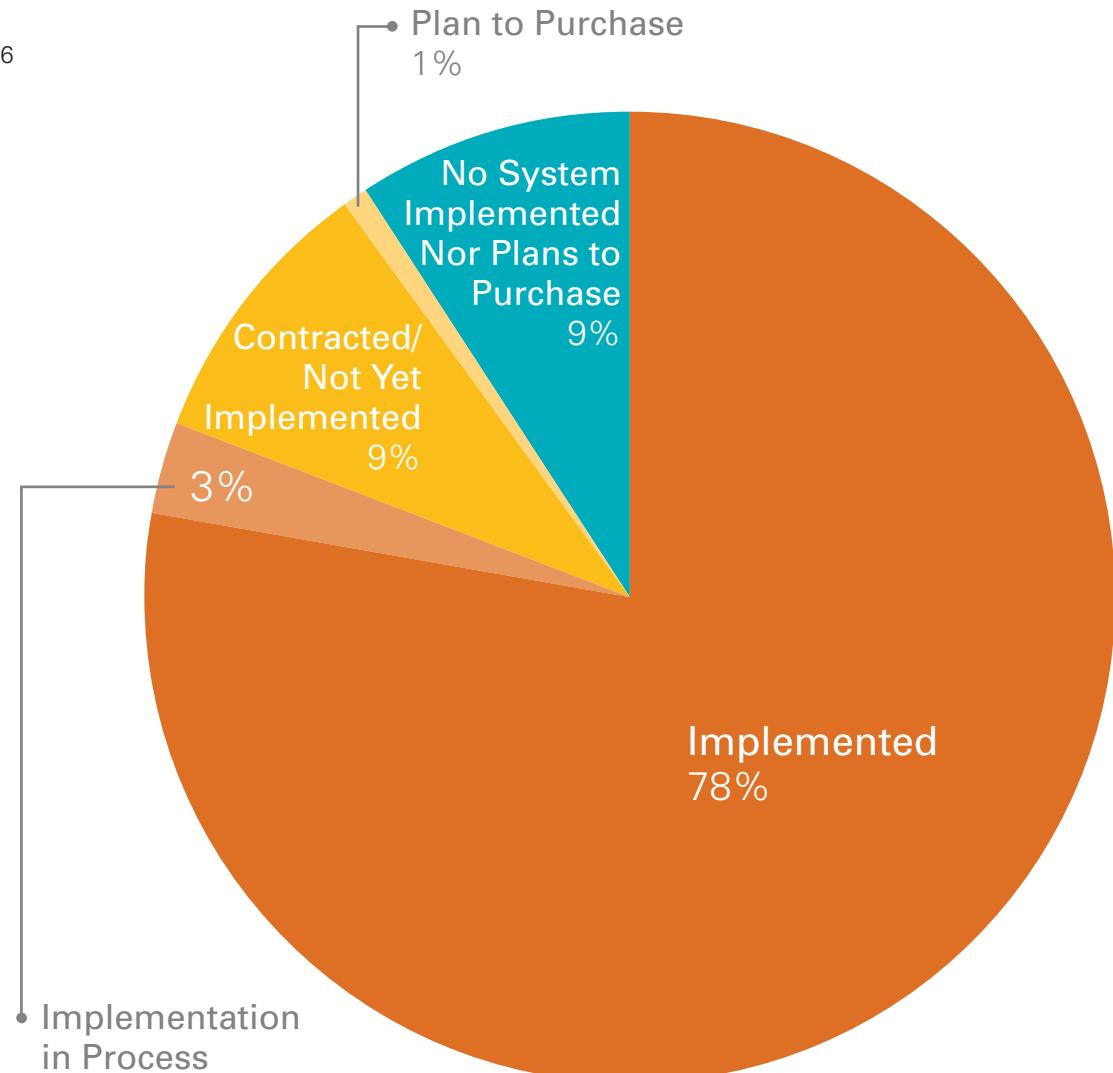
Checks for drug allergies and drug interactions were reported as the most commonly implemented forms of decision support.

\*Those who reported that they were either "beginning to implement in at least one unit" or "have resources identified to implement in the next year."

Source: Authors' (Jha et al.) analyses of data from the 2008 AHA Annual HIT Supplement of Acute Care Hospitals in the U.S.

## Hospitals with Clinical Data Repositories

n=386



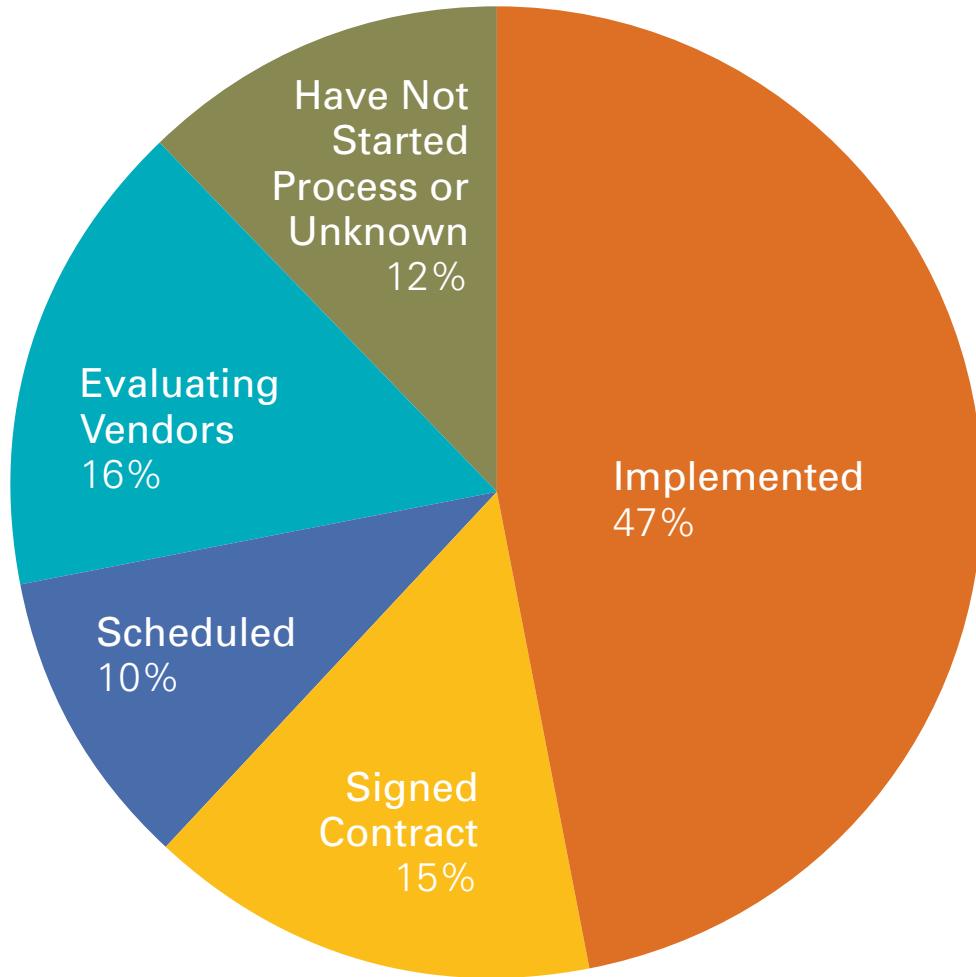
Source: HIMSS Analytics™ Database, 2010.

### The State of HIT in California Hospitals

Clinical data repositories are prevalent in California hospitals; 78 percent of hospitals reported current installations.

# EHR Implementation and Use at Community Clinics

n=151



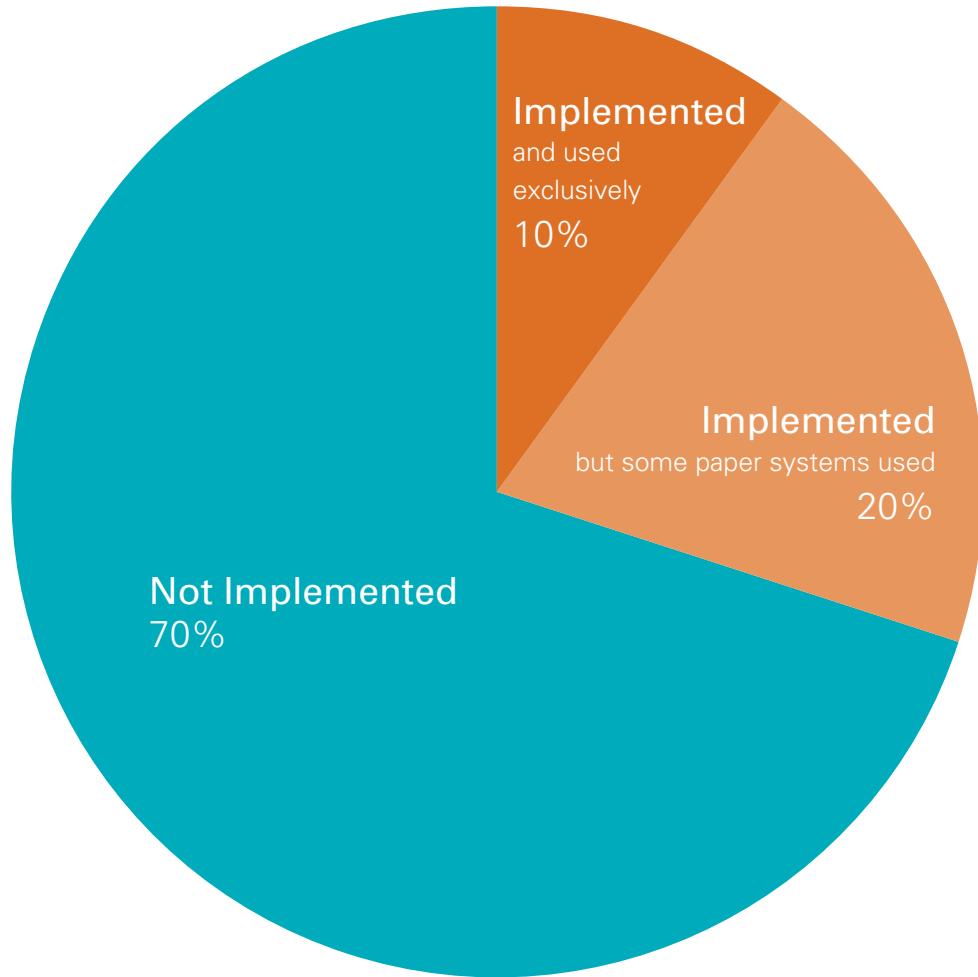
Source: AQICC MU, 2011.

## The State of HIT in California Community Clinics

Forty-seven percent of community clinics in California reported having implemented an EHR system. An additional 41 percent reported having begun the process of evaluating vendors, contracting, or scheduling an installation.

## EHR Implementation at FQHCs

n=33



Source: NACHC HIT Survey of Health Centers, 2008.

Seventy percent of federally qualified health centers (FQHCs) in California reported not having an EHR system in place.

# Electronic Prescribing Functions Implemented at FQHCs

n=33

Computerized Orders for Prescriptions\*



27%

Electronic Selection of Medications



24%

Electronic Transmission of Prescriptions



18%

Printing of Prescriptions



27%

Fax Transmission of Prescriptions



21%

Note: Respondents could answer "Yes" to more than one function, so the total may exceed 100 percent.

\*Two organizations use standalone electronic prescribing systems not part of an EHR.

Source: NACHC HIT Survey of Health Centers, 2008.

The State of HIT in California  
Community Clinics

Only 18 percent of FQHCs reported they had implemented technology to transmit prescriptions electronically.

# Computerized Order Entry Functions Implemented at FQHCs

n=33

Computerized Orders for Tests

21%

Electronic Transmission of Lab Orders

21%

Electronic Receipt of Lab Results

27%

Note: Respondents could answer "Yes" to more than one function, so the total may exceed 100 percent.

Source: NACHC HIT Survey of Health Centers, 2008.

The State of HIT in California  
Community Clinics

Over a quarter of FQHCs reported having implemented technology to receive lab results electronically.

# Decision Support Tools Implemented at FQHCs

n=33

## Medication Orders

Automated Prompts with Information on...

Drug Being Prescribed



21%

Drug-Drug Interactions, Allergy Concerns, Warnings or Cautions



21%

Inappropriate Dose or Route of Administration



18%

## Clinical Notes

Reminders for Guideline-Based Interventions and/or Screening Tests



27%

Clinical Decision Support for at Least One Diagnosis



18%

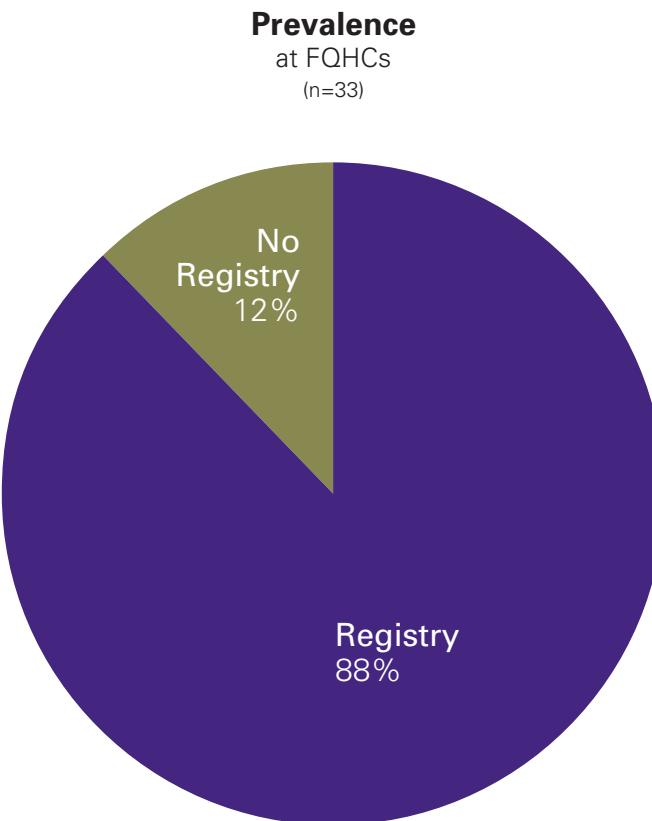
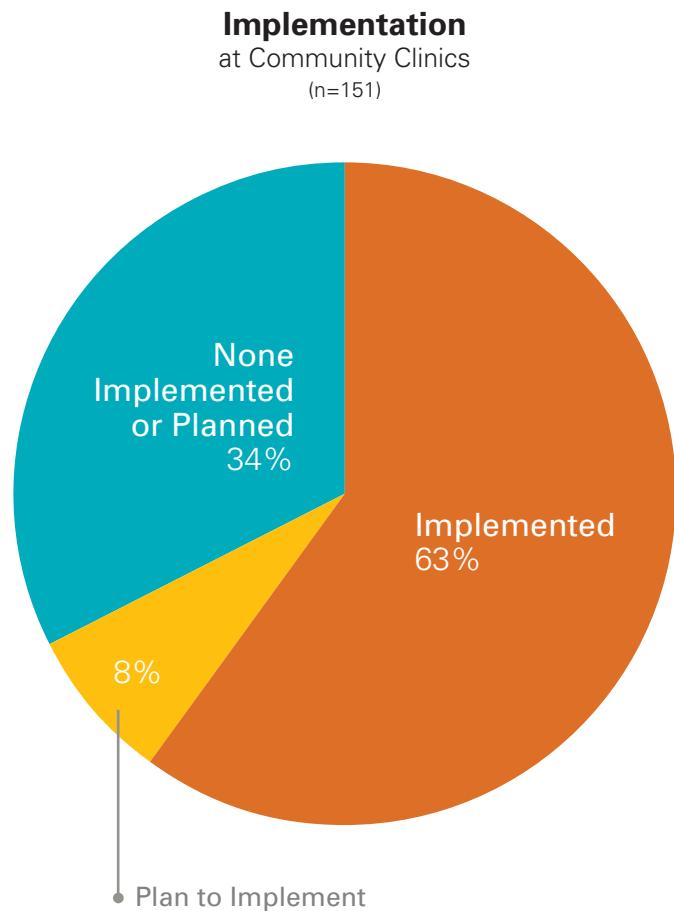
Note: Respondents could answer "Yes" to more than one function, so the totals for each table may exceed 100 percent.

Sources: National Association of Community Clinics survey, 2009. NACHC HIT Survey of Health Centers, 2008.

The State of HIT in California  
Community Clinics

Between 18 and 27 percent of FQHCs reported implementation of various decision support tools. Twenty-seven percent of organizations reported having implemented reminders for guideline-based interventions.

# Disease-Specific Patient Registries at Community Clinics, Implementation and Prevalence



## The State of HIT in California Community Clinics

The strong majority of community clinics reported implementation or plans to implement disease-specific registries. Among FQHCs surveyed, 88 percent reported having a registry in place.

Sources: AQICC MU, 2011. NACHC HIT Survey of Health Centers, 2008.

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## **FOR MORE INFORMATION**



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## Appendix | Sources, Methodologies, and Definitions

The slides in this presentation are based on data from seven independent sources, which used diverse methodologies to collect the data between 2008 and 2011.

**The Center for Studying Health System Change (HSC),** a nonpartisan policy research organization located in Washington, D.C., surveyed physicians for its nationally representative 2008 Health Tracking Physician Survey between February and October 2008. The sample of physicians was drawn from the American Medical Association physician master file, and included active, nonfederal, office- and hospital-based physicians providing at least 20 hours per week of direct patient care. Residents and fellows were excluded, as were radiologists, anesthesiologists, and pathologists. The survey includes responses from more than 4,700 physicians and had a 62 percent response rate. HSC estimates include responses from 535 physicians with practices based in California.

**Harris Interactive**, a market research firm, surveyed primary care physicians and pediatricians in 11 countries on behalf of the **Commonwealth Fund** between February and July 2009. Responses were collected via mail, phone, and online. For U.S. physicians, Harris drew a random sample of 1,442 physicians, including 484 California physicians, from the current American Medical Association physician master file. They obtained a 39 percent response rate in the U.S. and the California sample mirrors this response rate. For a more detailed description of the methods used in this survey, see Schoen et al. *Health Affairs* 2009;28(6): w1171–83.

**SK&A**, a Cegedim Company and provider of multi-channel health care marketing information databases and solutions, maintains an office-based physician database of over 700,000 U.S. physicians. The database contains physician contact information, as well as selections that provide ownership; size; health system and hospital affiliations;

EMR use; physician access; and specialty information. SK&A has been compiling its databases for 28 years and the physician database is phone-verified every six months.

The **HIMSS Analytics Database™** collects data on 30,000+ acute care and ambulatory facilities in the U.S. Information in the database is updated annually and voluntarily by hospitals using a web-based process. The sample used for this report has 386 hospitals.

**The American Hospital Association (AHA)**, in collaboration with researchers from the Harvard School of Public Health, the Institute for Health Policy, Massachusetts General Hospital, and George Washington University, surveyed all acute care hospitals that are AHA members. The survey was mailed to hospital chief executive officers in March 2008 to be completed by September 2008. Responses were received from 3,029 hospitals in the U.S., a 63 percent response rate. After federal hospitals and those located outside the U.S. were excluded, the final sample included 2,952 hospitals. The final California sample included 191 responding hospitals, a 50 percent response rate. For a more detailed description of the methods used in this survey, see Jha. et al., *New England Journal of Medicine* 2009; 360:1628–38.

**The National Association of Community Health Centers (NACHC) 2008 HIT Survey of Health Centers** was conducted by Michael R. Lardiere, LCSW, Director of HIT; Sr. Advisor Behavioral Health. The survey was a 15-minute online survey of its member organizations. It was distributed to 989 organizations and achieved a 37 percent response rate. For more information see [www.nachc.com](http://www.nachc.com).

The **California HealthCare Foundation (CHCF)** awarded funds to the 13 Regional Clinic Associations of California (Consortia) and the California Primary Care Association (CPCA) to complete the **Aligning Quality Improvement**

**in California Clinics for Meaningful Use (AQICC-MU)** initiative. This two-year project (August 2009 through July 2011) prepares California clinics for the “meaningful use” of EHRs and other health information technology to improve clinical outcomes and operational efficiency.

Data is collected at the participating clinic site level on four clinical measures and two operational measures, and the status of EHR and chronic disease management system (CDMS) implementation status. For the clinical and operational measures, data is submitted by clinics or consortia via a CPCA-managed web portal. The EHR and CDMS information is collected by each consortium about its member clinics, and consolidated at a regional and then state level before submission to CHCF. The data in this report was collected in January 2011.