



Medication Adherence in America:  
**A NATIONAL REPORT**

2013



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**A copy of the full report with appendices is available  
for download at [www.ncpanet.org/reportcard](http://www.ncpanet.org/reportcard)**



The National Report Card on Adherence is part of NCPA's Pharmacists Advancing Medication Adherence (PAMA) initiative, which is supported by educational grants from Cardinal Health Foundation, Merck and Pfizer.

# Executive Summary

Non-adherence can threaten patients' health individually as well as add vast costs to the health care system—an estimated \$290 billion annually.<sup>1</sup>

Americans with chronic medical conditions earn a troubling **C+ grade** in the first National Report Card on Adherence from the National Community Pharmacists Association (NCPA)—a weak score particularly given the risks and costs of failing to take prescription medications as directed.

Non-adherence can threaten patients' health individually as well as add vast costs to the health care system—an estimated \$290 billion annually.<sup>1</sup> NCPA sponsored this random-sample national telephone survey to gauge the extent of prescription medication non-adherence in this country and to explore the attitudes and behaviors that promote or discourage the responsible use of medication.

The survey, produced for NCPA by the independent survey research firm Langer Research Associates, was conducted among American adults 40 and older who've been prescribed ongoing medication for a chronic condition—the group that uses prescription medication most regularly and therefore is at greatest risk if non-adherent. This population represents 30 percent of all adults, with a

<sup>1</sup> *"Thinking Outside The Pillbox: A System-wide Approach to Improving Patient Adherence for Chronic Disease."* NEHI. 2009.

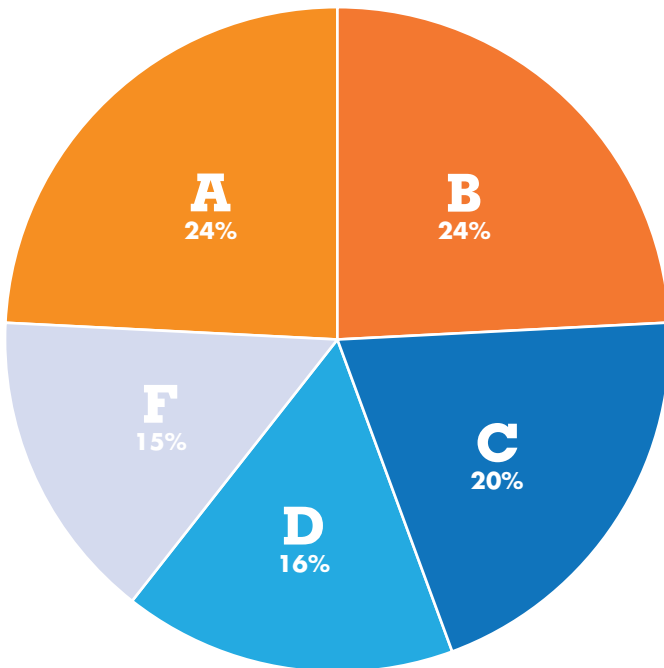
median age of 60 and an average of four ongoing prescriptions.

The National Report Card on Adherence is based on an average of answers to questions on nine non-adherent behaviors. Whether or not, in the past 12 months, patients:

- Failed to fill or refill a prescription;
- Missed a dose;
- Took a lower or higher dose than prescribed;
- Stopped a prescription early;
- Took an old medication for a new problem without consulting a doctor;
- Took someone else's medicine; or
- Forgot whether they'd taken a medication.

## National Medication Adherence Report Card

Average Grade: C+



The score can range from 0 (non-adherence on all nine behaviors) to 100 (perfect adherence). **The average score is 79 (C+).**

Grouping adherence levels [see chart on previous page], just 24 percent earn an A grade for being completely adherent. An additional 24 percent are largely adherent, reporting one non-adherent behavior out of nine (a grade of B). Twenty percent earn a grade of C and 16 percent a D for being somewhat non-adherent, with two or three such behaviors in the past year, respectively. The remaining 15 percent—one in seven adults with chronic conditions—are largely non-adherent, with four or more such behaviors, an F grade.

Survey results on a subject such as medication adherence can be influenced by potential reluctance among some respondents to admit to undesirable behaviors. Thus the grades in this survey, if anything, may understate non-adherence—underscoring cause for concern about the extent to which patients are following their medication instructions.

In addition to self-reported adherence, the survey assessed demographic, attitudinal and behavioral factors related to prescription drug compliance, including individuals' health and medical status; their ability to afford prescription medication; their feelings that their prescribed medications are safe, effective and easy to take; where they get their medications; and how informed they feel about their health, among other factors.







# Predictors

Patients' personal connection with a pharmacist or pharmacy staff is the top predictor of medication adherence.

Regression modeling, a statistical technique that assesses the independent strength of the relationship between two variables while holding other factors constant, identified the six key predictors of medication adherence. Those include—in order of magnitude:

- Patients' personal connection with a pharmacist or pharmacy staff;
- How easy it is for them to afford their medications;
- The level of continuity they have in their health care;
- How important patients feel it is to take their medication exactly as prescribed;
- How well informed they feel about their health; and
- The extent to which their medication causes unpleasant side effects.

These predictors, as well as other results of this survey, indicate a variety of avenues by which health care providers and pharmacists alike can address non-adherence—among them, better informing patients of the importance of adherence, strengthening a sense of personal connection and communication between patients/caregivers and their health care and pharmacy providers and encouraging patients to discuss side effects with those providers.

## These predictors...indicate a variety of avenues by which health care providers and pharmacists alike can address non-adherence.

The survey also found demographic as well as attitudinal and informational differences in adherence: older Americans indicate greater adherence than younger respondents, for example, and those with lung problems report lower adherence than those without this chronic condition.

When non-adherent respondents are asked their reasons for failing to comply with doctors' orders, the most commonly mentioned reason is simply forgetting, cited by more than four in 10 as being a major reason. Other top reasons include running out of medication, being away from home, trying to save money and experiencing side effects. These, as well as further details about the drivers of medication adherence, are outlined in the full report.







# Methodological Summary

This survey was conducted Feb. 20-March 10, 2013, in English and Spanish, by landline and cellular telephone, among a national sample of 1,020 adults age 40 and older with an ongoing prescription to take medication for a chronic condition, with field work by Social Science Research Solutions of Media, Pa. Results for the full sample have a margin of sampling error of plus or minus 3.5 percentage points, and all differences among results described in this report have been tested for statistical significance.

The survey was produced and analyzed, and this report written, by Langer Research Associates, of New York, N.Y., in accordance with the Code of Professional Ethics and Practices of the American Association for Public Opinion Research and complies with the Principles of Disclosure of the National Council on Public Polls. The full report, including its appendices on methodology, statistical analyses and the full questionnaire and topline results, is available for download at [www.ncpanet.org/reportcard](http://www.ncpanet.org/reportcard).

# Conclusions and Recommendations

The first National Report Card on Adherence finds troubling levels of medication non-adherence among some of the most frequent ongoing medication users in the United States. Millions of adults age 40 and older with chronic conditions are departing from doctors' instructions in taking their medications—skipping, missing or forgetting whether they've taken doses, failing to fill or refill prescriptions, under- or over-dosing or taking medication prescribed for a different condition or to a different person.

An overall C+ grade underscores the problem; the F grades earned by one in seven of these medication users—the equivalent of more than 10 million adults—should heighten alarm.

This survey not only establishes the breadth of the problem but evaluates factors that influence medication non-adherence, suggesting paths to attempt to address the problem. Chief predictors of non-adherence include the presence or absence of a personal connection with a pharmacist or pharmacy staff; the affordability of prescribed medications; a belief in the importance of following instructions in taking medications; patients' general levels of health information; and the presence of side effects.

Pharmacists have a role at the forefront of addressing prescription medication non-

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adherence. The results of this survey indicate that much depends on the extent to which pharmacists and pharmacy staff establish a personal connection with their patients and caregivers and engage with them to encourage fuller understanding of the importance of taking medications as prescribed. Independent pharmacists may be particularly well-placed to boost adherence, given their greater personal connection with patients.

Health care providers have a vital role to play in stressing the importance of taking medications as prescribed, in monitoring and helping patients avoid or reduce unpleasant side effects that may compromise adherence and in helping to keep patients more generally well-informed about their health conditions. Health care providers, including pharmacists, can help reduce non-adherence by assisting economically vulnerable patients in finding the most affordable medication options.

Better information, communication and patient/caregiver support have been shown in previous studies to increase patients' engagement and involvement in their health care, their satisfaction with their care and their loyalty to their health care providers. This survey shows yet another potential positive benefit of increased patient engagement—a reduction in the currently high levels of prescription medication non-adherence in the United States, and its associated costs and health risks alike.



# NOTES





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