



WHITE PAPER

Take as directed:

Effective approaches to improving medication adherence

Medication adherence is essential to proper disease management. With the rate of adherence to chronic medications at about 50%, it is a common and pressing healthcare issue.¹ Each patient is unique, with equally unique challenges that stand in the way of medication adherence. Asking key questions is imperative to revealing adherence challenges and discovering effective patient-centered solutions. Consistently uncovering patients' underlying beliefs and personal barriers informs more effective care plans and targeted solutions at the individual and population levels.

Are you asking the right questions?

 **SilverFern**
Human understanding, unlocked.

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The scale of the problem

A widespread challenge for providers, health plans, and employers is that many people living with chronic conditions do not properly start, adhere to, or persist with the drugs that they have been prescribed, which results in them failing to get the full benefits of medication and suffering from avoidable disease progression. Medication adherence can have a more direct impact on patient outcomes than the specific treatment itself, and improper adherence impacts health outcomes and quality and length of life.² It increases hospital admissions and healthcare costs, with nonadherence resulting in an estimated economic burden of \$100 to \$300 billion per year.^{3,4}

Each year, out of the 3.8 billion prescriptions written in the United States, approximately one in five new prescriptions are never filled. When filled, half are not properly adhered to, with major adherence issues being around the timing, dosage, frequency, and duration of the medication.^{5,6} The robust conversation that is necessary to ensure that patients are prepared to take their medications as prescribed is infrequently covered in full during routine care, and sometimes not discussed at all.⁷

“Nonadherence is estimated to result in around **125,000 deaths** and up to 25% of total hospitalizations each year in the United States.¹”

1 <https://www.uspharmacist.com/article/medication-adherence-the-elephant-in-the-room>

2 <https://pubmed.ncbi.nlm.nih.gov/12218770>

3 https://www.cdc.gov/dhdsdp/pubs/docs/SIB_July2019-508.pdf

4 <https://cdn.ymaws.com/acpm.site-ym.com/resource/resmgr/timetools-files/adherenceclinicalreference.pdf>

5 <https://www.nejm.org/doi/full/10.1056/NEJMp1002305>

6 <https://www.nejm.org/doi/full/10.1056/nejmra050100>

7 <https://pubmed.ncbi.nlm.nih.gov/21400326>

New approaches to unlock the underlying reasons for medication nonadherence

Understanding how patients take their medications and why they do not is a complex, multifactorial problem that may have nothing to do with the medication itself. And for an individual patient, changes in their health or life circumstances can impact the barriers that they experience. Asking the right questions to understand the patient's individual situation helps to provide context for what's getting in the way of proper medication management and offers a basis for developing a more effective care plan.

At Silver Fern, we offer solutions to help clinicians take a more holistic approach to patient care. Eight of our research-based assessment modules are designed to unlock the complex and interconnected issues that can impact proper medication adherence.

Health Literacy & Numeracy



It is estimated that more than one in three adults in the U.S. have low health literacy; the rates are higher among lower-income Americans eligible for Medicaid.⁸ A study found that patients in primary care settings who had low literacy were three times less likely to correctly interpret medication label warnings.⁹ Another found that low literacy was associated with misunderstanding medication labels, and only 35% of patients with low literacy could correctly identify how many pills needed to be taken daily.¹⁰ Silver Fern's Health Literacy & Numeracy Module establishes whether the patient has the base level of literacy needed to read and understand medication directions.

Social Determinants of Health and Social Support



Patients may have practical reasons to never start or to discontinue their medications. It may be difficult for the patient to get to the pharmacy due to transportation issues; or the medication schedule may be difficult to adhere to due to factors in the patient's work and home life. A report from the National Center for Health Statistics found that about 8% of adult Americans don't take their medicines as prescribed because they can't afford them.¹¹ Silver Fern's SDoH Plus Module focuses on social issues, such as finances and support from family and friends, that can play a major role in medication adherence.

Cognitive Functioning



General cognitive decline, largely affecting those over 65, also impacts medication taking behaviors. The World Health Organization reports that around 50 million people have dementia, including 8.8% of American adults over 65, with 10 million new cases diagnosed worldwide each year.¹² Silver Fern's Cognitive Functioning Module assesses the basic functional memory capacity required to take medications on a regular basis.

8 <https://www.chcs.org/resource/health-literacy-fact-sheets>
9 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1831578>
10 <https://pubmed.ncbi.nlm.nih.gov/17135578>

11 <https://www.cdc.gov/nchs/data/databriefs/db184.pdf>
12 <https://www.who.int/health-topics/dementia>



Behavioral Health Barriers

Patients with chronic disease are at higher risk of depression and anxiety, and these behavioral health challenges put them at greater risk of not taking their medications.¹³ Silver Fern's Behavioral Health Barriers Module focuses on psychological issues such as depression, anxiety, post-traumatic stress disorder, alcohol dependence, and binge eating disorder that can negatively impact medication adherence.



Medication Taking Behaviors, Barriers, and Goals

Behavioral research in medication adherence shows that many patients hold strong personal attitudes, beliefs, emotions, and preferences about medications they are prescribed.¹⁴ The American Medical Association lists distrust, worry, depression, and lack of symptoms as patient beliefs that can interfere with medication adherence.¹⁵

Sometimes, patients simply do not have a complete understanding of their diagnosis and how their medications must be taken regularly to be of benefit. This may be particularly true for conditions such as hypertension that do not cause any unpleasant symptoms. Since these patients often feel fine and the medication does not change how they feel, or may in some instances cause adverse effects, patients may see taking the medication as a net negative.¹⁵ Patients may worry that the prescribed medications will have unintended side effects or that they could become dependent on the drugs. They may be influenced by what friends or family have told them or they have witnessed regarding a relative's care. These intensely personal, psychological issues are practical barriers that need to be carefully explored with the patient. Silver Fern's Medication Taking Module uses a series of essential questions to assess the patient's current medication-taking behaviors, goals, and barriers to adherence.



¹³ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3181287>

¹⁴ <https://journalce.powerpak.com/ce/medicationadherenceinpatientswithtype2diabete>

¹⁵ <https://www.ama-assn.org/delivering-care/patient-support-advocacy/8-reasons-patients-dont-take-their-medications>



Disease-specific factors

Managing a chronic disease involves many daily management tasks that can be cumbersome and difficult for the patient. Exploring the disease-specific management considerations that are essential for each patient to achieve optimum health is an important part of fully evaluating the potential barriers to medication adherence. Silver Fern offers three modules that address this topic:



Hypertension:

Home Blood Pressure Monitoring

This module explores home blood pressure monitoring as a mechanism for assisting providers to manage blood pressure medication.



Type 2 Diabetes:

Insulin Therapy Problems

This module focuses on attitudes regarding starting insulin, as well as current insulin taking behaviors, goals, and barriers to adherence.



Heart Failure:

Weight and Fluid Intake

This module contains questions that address the relationship between adherence to medications and ability to limit excessive fluid gains.

In addition to quickly assessing patients' current behaviors, goals, barriers, and preferences, the Silver Fern modules offer extensive suggested actions for follow-up care paths that are aligned with each patient's individual responses. To enable patient-provider visits to focus on targeted conversations and solutions, the assessments can be delivered to patients via email or text and be completed asynchronously prior to scheduled appointments.

Building targeted, population-based health intervention plans to move the needle on medication adherence and improve quality metrics

When providers and health plans have access to medication adherence data at the population level, they can develop more effective interventions and programs. Improving medication adherence patterns for populations not only better patient health and lowers healthcare costs, but it can also help providers and health plans meet HEDIS® measures and improve Stars ratings which CMS recently adjusted to more heavily factor in efforts to improve medication adherence.

Having precise and actionable data is essential to taking informed actions that move the needle on population health. Silver Fern's dedicated reporting server and customizable Tableau dashboards allow clients to view population-level health data about their patients' behaviors, goals, and barriers illuminated by the medication adherence modules.



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What are the reasons it is hard to take medications?

For example, using data from Silver Fern’s Medication Taking Module, a provider, health plan, or employer can view responses from its population with type 2 diabetes to assess and address common barriers to proper medication adherence. The chart below is a sample of the population data offered by the Medication Taking Module. This chart indicates the top five barriers expressed by members of this population when answering the question, *What are the reasons it is hard to take medications?*

Medication Taking Module—Top Five Flagged Responses

It’s hard to remember to take them at the right time.

32%

They are too expensive, so I skip them or cut them in half.

24%

They give me unpleasant side effects.

19%

I fear causing damage to my kidneys, liver, or other parts of my body.

15%

I feel good, so I don’t need to take them.

15%



Using these insights, the provider, health plan, or employer can create targeted campaigns to address what is commonly getting in the way of medication adherence. For example, they could educate members on essential topics or misunderstandings, offer members tools or target strategies for improving their medication management (e.g., digital pill boxes), or inform members of their insurance benefits or other resources for making medications more affordable.



Are you asking the right questions?

To improve patient outcomes and avoid preventable costs associated with medication nonadherence, a holistic, patient-centered approach, informed by patient-generated information, should complement existing clinical care strategies for medication management. For patients to get the full benefits of prescribed medications, clinical teams need to have meaningful conversations with patients to help them problem solve and create a personal action plan that builds in the patient's preferences and helps them overcome personal barriers. Accessing the information that informs those robust conversations across provider or payer systems requires a consistent approach to asking the right questions.

And with access to data-driven insights about medication adherence at the population level, teams can more effectively measure what's commonly getting in the way for groups of members, patients, or employees. Providers, health plans, and employers can use that data to inform quality improvement initiatives and develop proactive and targeted campaigns to address the needs of populations, driving down costs and improving health outcomes.

It all starts with asking the right questions. Silver Fern is helping organizations take an efficient and systematic approach to improving medication adherence by asking the right questions.

► *If you're interested in learning more, please contact us today.*



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