

Boosting Medication Adherence in Patients Following Myocardial Infarction

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Background

- About 1 in 5 patients who have had a myocardial infarction (MI) will have a second one within 5 years
- Drug therapies (such as statins, angiotensin-converting enzyme (ACE) inhibitors) reduce the risk of having a second MI or other major cardiovascular event
- Regardless, studies show a steady decline in adherence to cardiac medications in the months following an MI
- Boosting medication adherence reduces risk of a future MI and improves health outcomes

Impact of Adherence on Long Term Outcomes in Patients Post-MI

A study of 4,015 post-MI patients prescribed both a statin and an ACE inhibitor after hospital discharge analyzed the relationship between medication adherence and the incidence of major adverse cardiovascular events (MACE) within 2 years:

- 18.9% of fully adherent ($\geq 80\%$ prescribed doses) patients had a MACE
- 24.7% of partially adherent (40%-79% prescribed doses) patients had a MACE
- 26.3% of non-adherent ($< 40\%$ prescribed doses) patients had a MACE

Fully adherent patients had:

- Lower annual direct medical costs than partially or non adherent patients
- A significant reduction in all-cause emergency room visits
- Statistically significant reduction of MACE compared to non-adherent group ($p = 0.0004$)

Source: Bansilal, 2016

Prevalence of Barriers to Adherence

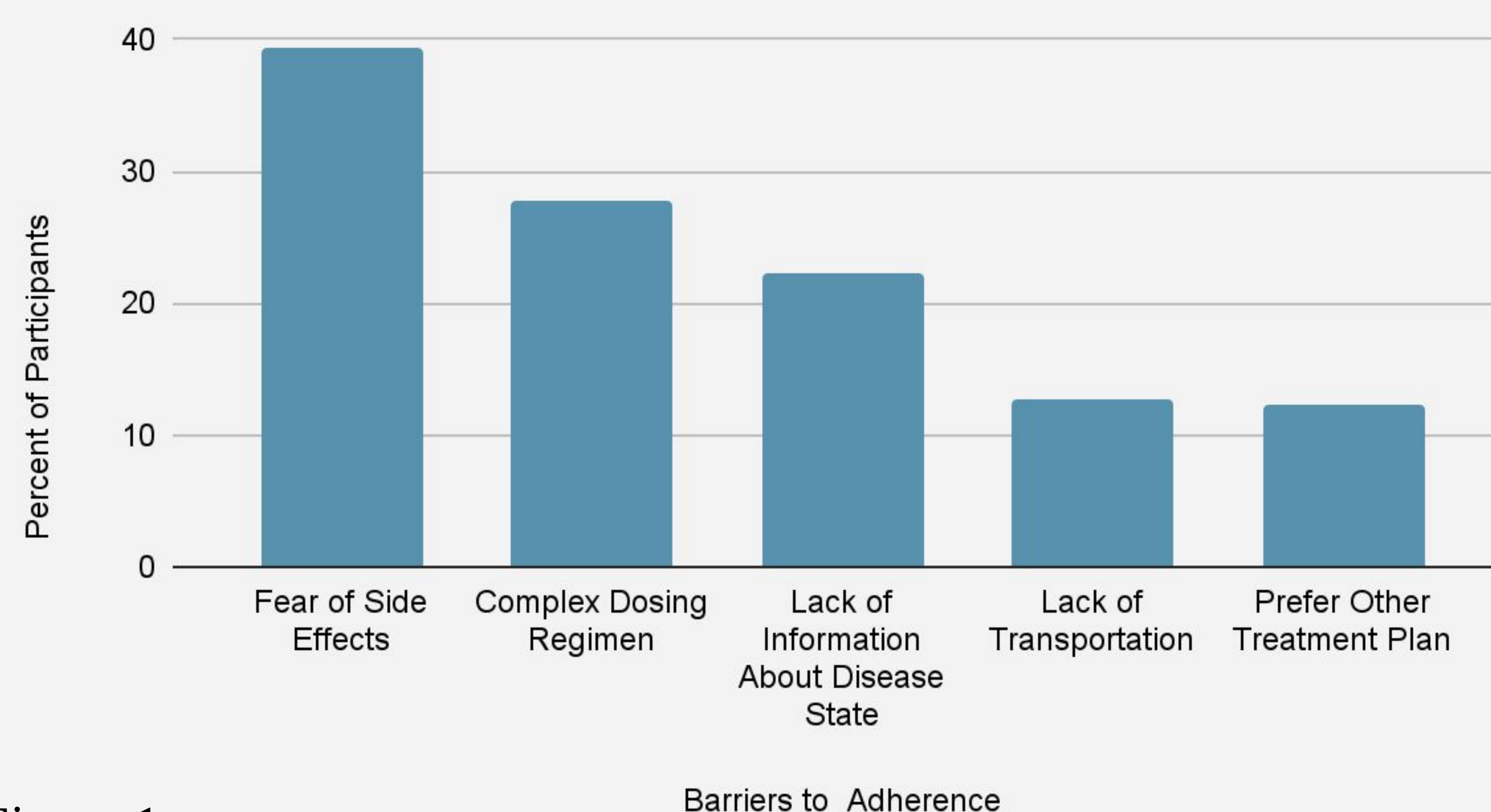


Figure 1

Source: Ganasegeran, 2017

Adherence to ACEI & Statin Prescriptions in Adults Post MI

Based on 4,015 patients

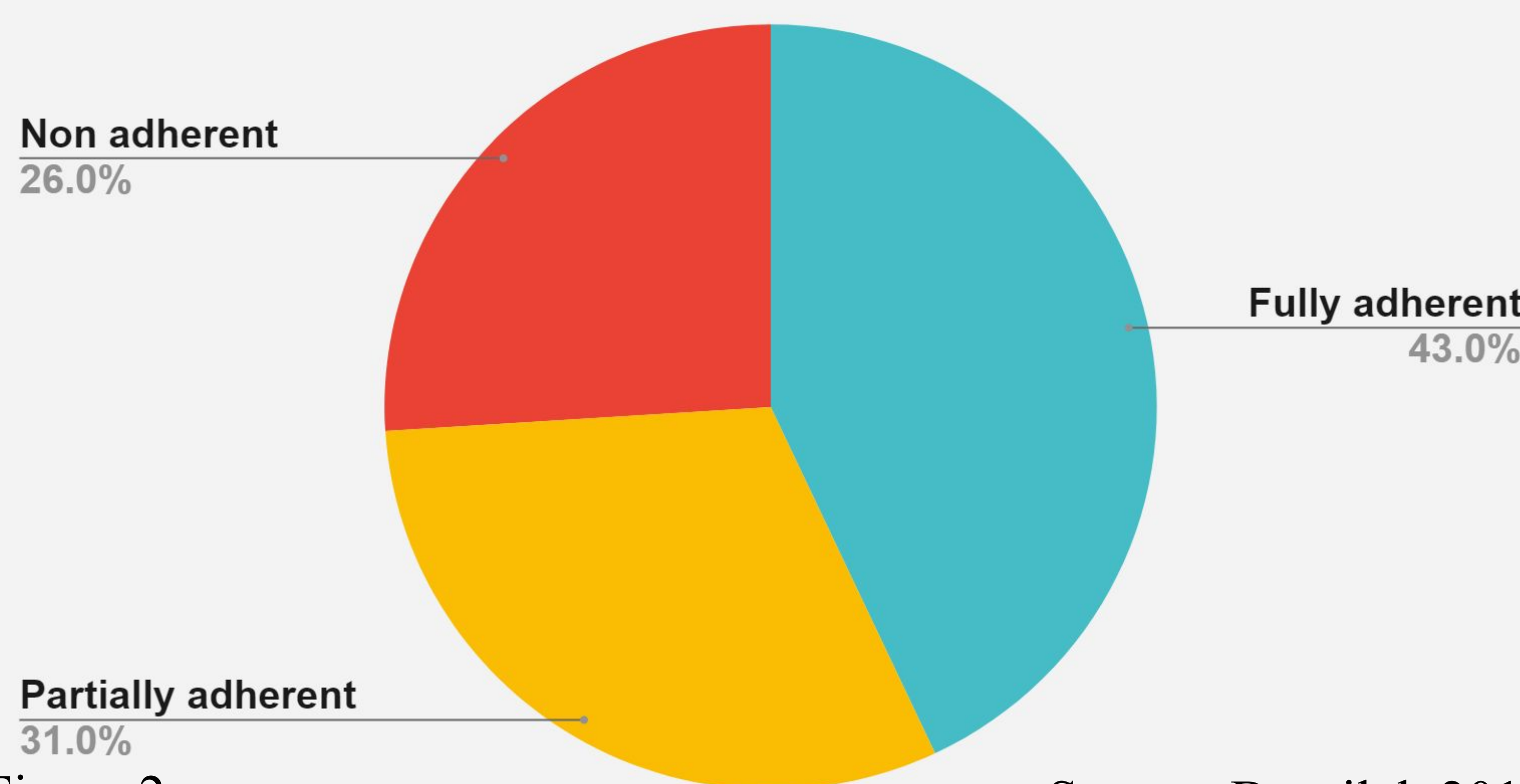


Figure 2

Source: Bansilal, 2016

Other Barriers to Adherence

- Age > 65
- Being unmarried or widowed
- High medication cost
- Lack of higher education
- Living in a rural area
- Unemployment & retirement

References



Overcoming Barriers of Non-Adherence

Pharmacist Intervention

Patients who have direct pharmacist intervention show improved medication adherence when the following strategies are used in the inpatient, outpatient and community settings:

1. Counseling at Discharge
 - a. Opportunity to address patients' fear of side effects or lack of understanding about how a medication will work
2. Medication Review
 - a. Pharmacist should identify and resolve any drug related problems to medications prescribed post-MI followed by advice to prescriber
3. Motivational Interviewing
 - a. Non judgemental, collaborative communication and information exchange to stimulate behavior change
 - b. OARS Approach
 - i. Open-ended questions, affirmations, reflective listening, and summaries
 - i. "Resist the Righting Reflex"
 - i. Resist the urge to immediately point out problems. This can cause a patient to be defensive and become more committed to maintaining their current behavior
4. Telephone Follow-ups
 - a. May be more convenient for patients than face to face intervention
 - b. Assesses adherence and any adverse reactions a patient may be having

Indirect Interventions

- Refill reminders via text messaging
- Smartphone apps that send daily reminders to take medication
- ScriptSync™ to prevent multiple trips to the pharmacy
- Pill boxes organized by day of the week