

Spotlight on Medication Adherence

Calendarized Blister Packaging for Better Health Outcomes

Medication non-adherence is a global issue with significant impacts on health outcomes and the healthcare system at large.

Jones has spent over a century responding to healthcare needs with innovative packaging solutions, bringing extensive experience from pharmacy markets across the world through our wholly-owned subsidiary, Venalink as well as our North American operations.

Our reach extends throughout the U.S., Canada, Europe and into Latin America.

In response to our clients' needs and our shared dedication to medication safety, we co-developed the first multi-dose adherence card over 30 years ago to help patients take the right medications at the right time. Today, we have a broad portfolio of customizable and automation-compatible adherence packaging available.

This evidence-based review outlines the rise of medication non-adherence, the role adherence packaging can play in improving health outcomes and the solutions available within the American market.

For more information, please reach out to us at pharmacy@joneshealthcaregroup.com or +1.800.265.1009.

The Need for Medication Management Solutions

With the number of seniors in America age 65 and older set to double by 2060¹, and those living with chronic disease expected to reach a staggering 157 million by 2020², medication adherence will continue to play an increasingly important role in improving patient outcomes and reducing costs within the American healthcare system.

91%

of patients aged over 65 take prescription drugs everyday³

67%

of seniors have prescriptions for 3 or more drugs³

50%

of patients do not take their prescription medications as prescribed⁴

40%

of seniors have prescriptions for 5 or more drugs³



Medication Adherence

Medication adherence is defined as the extent to which patients follow provider recommendations about day-to-day treatment with respect to timing, dosage and frequency.

Studies have shown adherence is inversely proportional to the number of times a day a patient must take medication each day (once per day results in 80% adherence vs. 50% adherence for four times per day⁵).

Recent statistics also demonstrate the gap in patients' ability to follow these recommendations and furthermore highlight the negative outcomes of this behavior.

Not only will closing the medication adherence gap improve the quality of healthcare, promote enhanced patient outcomes and encourage better chronic care management, but it will also significantly reduce the overall cost across the American healthcare system.



Non-Adherence and Patient Outcomes

Each year, drug non-adherence is the true cause of:

10%

of all hospital admissions

25%

of hospital admissions for the elderly

23%

of nursing homes

- A recent study found 26% of all hospital readmissions were medication-related and of those readmissions, 48% were related to non-adherence⁷
- Average adherence for patients with chronic illnesses is relatively poor⁸:
 - High cholesterol: 57%
 - High blood pressure: 48%
 - Diabetes: 43%
- Adverse drug reactions are a leading cause of patient mortality⁴

Financial Impact of Non-Adherence

- Medication non-adherence results in \$528.4 billion per year in preventable costs to the healthcare system⁶
- These costs include additional physician visits, extra laboratory tests, additional drug therapy, hospital ER visits, hospital admissions and readmissions, and short-term disability insurance payments⁹

Role of the Pharmacist in Driving Medication Adherence

- Each year American pharmacists fill more than four billion prescriptions¹⁰
- Research suggests that targeted and personalized interventions between patients and pharmacists are beneficial¹¹
- Patients were more adherent to medications and refilled their prescriptions faster with pharmacist interventions¹¹
- Alternatives to pharmacist-filled adherence packaging, such as pill boxes and dosettes filled by patients and informal caregivers, are more likely to contain incorrect doses¹²

Dispensing Solutions to Support Medication Adherence Are Critical to Better Healthcare

Several studies show that blister and calendarized packaging can be effective tools to assist in the improvement of medication adherence.

Dispensing in adherence packaging helps patients manage their medications, particularly for seniors and those with chronic diseases requiring multiple medications and complex treatments.



We've Done the Research

- Two-Plus Decades of Research Studies Support Improved Patient Adherence with Calendarized, Compliance-Prompting Packaging, Healthcare Compliance Packaging Council¹³
- Study to Measure the Impact of Pharmacists and Pharmacy Services (STOMPP) on Medication Non Adherence: Medication Adherence and Clinical Outcomes, The University of Toledo¹⁴
- Lack of Medication Adherence Harms Americans' Health, Greenberg Quinlan Rosner Research¹⁶
- A Pharmacoepidemiologic Analysis of the Impact of Calendar Packaging on Adherence to Self-Administered Medications for Long-Term Use, Clinical Therapeutics¹⁵
- Interventions to Improve Adherence to Self-Administered Medications for Chronic Diseases in the United States, American College of Physicians⁹
- Adherence to Medication Leads to Lower Health Care Costs, PhRMA¹⁷
- Effect of a Pharmacy Care Program on Medication Adherence and Persistence, Blood Pressure, and Low-Density Lipoprotein Cholesterol
- Effect of a Pharmacy Care Program on Medication Adherence and Persistence, Blood Pressure, and Low-Density Lipoprotein Cholesterol¹⁸

Jones Offers a Dispensing Solution to Promote Medication Adherence

As a proud leader in driving innovation and patient safety in the medication management market, Jones offers a wide range of adherence packaging options for retail pharmacy, long-term care and hospital channels to promote patient safety and well-being.

- Multiple formats and blister sizes for unit or multi-dose dispensing
- Customizable cards to maximize branding opportunities
- Portable dosing for patients on-the-go
- Accommodate multiple prescription labels
- Clear graphics make it easy for healthcare providers and patients to use
- Compatible with manual filling and/or automated filling technologies

See Our Range of Solutions:

Qube 7-Day High-Capacity Card	Qube31 Monthly Multi-Med Card	FlexRx™ and FlexRx™ Light 7-Day Pack With Detachable Passes for Portability	31-Day Single Dose Monthly Single-Med Card
			

References

- Fact Sheet: Aging in the United States, Population Reference Bureau, July 2019, <https://www.prb.org/aging-unitedstates-fact-sheet/>
- About Chronic Diseases, National Health Council, 2014, <https://www.nationalhealthcouncil.org/sites/default/files/AboutChronicDisease.pdf>
- Therapeutic Drug Use, CDC, 2017, <https://www.cdc.gov/nchs/data/hus/2017/079.pdf>
- CDC Grand Rounds: Improving Medication Adherence for Chronic Disease Management — Innovations and Opportunities, CDC, 2017, https://www.cdc.gov/mmwr/volumes/66/wr/mm6645a2.htm#F1_down
- PhRMA, Improving Prescription Medication Adherence is Key to Better Healthcare, January 2011, http://phrma-docs.phrma.org/sites/default/files/pdf/PhRMA_Improving%20Medication%20Adherence_issue%20Brief.pdf
- Cost of Prescription Drug-Related Morbidity and Mortality, 2018, <https://escholarship.org/uc/item/3n76n4z6#main>
- Journal of the American Pharmacists Association, Potentially Preventable Medication-Related Hospitalizations ..., November-December 2017, [https://www.japha.org/article/S1544-3191\(17\)30778-1/fulltext](https://www.japha.org/article/S1544-3191(17)30778-1/fulltext)
- Express Scripts Canada, 2011 Drug Trends Report, <http://www.express-scripts.ca/news-room/express-scripts-canada-releases-findings-2011-drug-trend-report-2012-pharmacy>
- Interventions to Improve Adherence ..., Annals of Internal Medicine, December 2012, <https://annals.org/article.aspx?articleid=1357338>
- State Health Facts, KFF, 2018, <https://www.kff.org/health-costs/state-indicator/total-retail-rx-drugs/?currentTimeframe=0&selectedRows=%7B%22wrapups%22:%7B%22united-states%22:%7B%7D%7D%7D&sortModel=%7B%22colld%22:%22Location%22,%22sort%22:%22asc%22%7D>
- Prescription Drugs Use in the United States 2015-2016, CDC, <https://www.cdc.gov/nchs/products/databriefs/db334.htm>
- U.S. National Library of Medicine, National Institutes of Health Packaging Interventions to Increase Medication Adherence: Systematic Review and Meta-Analysis, November 2014, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4562676/>
- Improving Medication Adherence Through Packaging, Healthcare Compliance Packaging Council, 2015, <https://www.scribd.com/document/349381727/HCCP-White-Paper-Improving-Medication-Adherence-With-Packaging>
- Study to Measure the Impact of Pharmacists and Pharmacy Services (STOMPP) on Medication Non-Adherence..., Innovations in Pharmacy, 2018, Vol. 9, No. 1, Article 11, <https://pubs.lib.umn.edu/index.php/innovations/article/view/1104/1051>
- A Pharmacoepidemiologic Analysis of the Impact of Calendar Packaging ..., Clinical Therapeutics, May 2011, [http://www.clinicaltherapeutics.com/article/S0149-2918\(11\)00230-X/abstract](http://www.clinicaltherapeutics.com/article/S0149-2918(11)00230-X/abstract)
- Lack of Medication Adherence Harms Americans' Health, Greenburg Quinlan Rosner Research, May 2013, https://static1.squarespace.com/static/589912df1b10e39bd04eb3ab/t/58afa4a315d5dba99f14c796/1487905955581/2013PublicPollMemo_CAHC.pdf
- Adherence to Medicines Leads to Lower Health Care Costs, PhRMA Research, April 2013, <https://catalyst.phrma.org/ask-about-adherence-poor-medication-adherence-leads-to-negative-health-outcomes-and-increased-health-care-costs>
- Effect of a Pharmacy Care Program on Medication Adherence and Persistence, Blood Pressure, and Low-Density Lipoprotein Cholesterol, 2006, <https://www.ncbi.nlm.nih.gov/pubmed/17101639>

