

Category: **Didactics**

Project: **Lown Institute, "Medication Overload: America's Other Drug Problem"**

What was the challenge?

The Lown Institute is a nonprofit with the mission of advancing bold ideas for a just and caring health system. This is achieved by partnering with a network of collaborators to expose poor health care values, promote health equity policies, engage consumers and health care professionals, and identify and nurture innovators that are contributing to the field.

In an effort to gain a grant for its national strategy and action plan, the Lown Institute needed to organize and develop a framing paper that would examine the scope, harms, and drivers of the medication overload crisis.

What was the solution?

Working alongside the Lown Institute and brand consultant, Noam Bar-Zemer, Two Twelve served as design-thinking consultant to support the Institute's initiative to garner support and awareness surrounding the need for polypharmacy's reduction. We worked with the Lown project team on gathering information and developing the direction of communications to effectively convey the dangerous rise in the number of medications taken by older Americans. We then designed the graphics and layout to most effectively present the information.

What was the effect?

The resulting comprehensive report was published in April 2019 and acts as a persuasive call to action. The Lown Institute was equipped to engage a wide audience of pharmacies, clinicians and clinician specialty groups, patients, patient advocacy groups, and families/caregivers in order to communicate the message of harmful polypharmacy and create a sense of urgency to get the public involved.



“When Manuel arrived at our clinic, he did not look like a man who two months earlier had been golfing three times a week.”

— Dr. Deepa Ramadurai
Internal medicine resident, University of Colorado



Clinician Story

Hitting the Target But Missing the Mark

When Manuel* arrived at our clinic, he did not look like a man who two months earlier had been golfing three times a week and was able to take care of his young grandchildren. He said he was fatigued all the time and often dizzy.

After looking at Manuel's medical record and hearing his story, I had a hunch that polypharmacy was the cause of his symptoms. Considering his age and increased risk factors for heart attack and stroke, it was possible that his previous doctor had increased his blood pressure medications, which can cause lethargy and dizziness.

Despite the potential adverse side effects, older patients are regularly given these medications because physician guidelines recommend more aggressive treatment of high blood pressure for all patients, no matter their age or other conditions.

Sure enough, Manuel's previous doctor had added more medications to his regimen a few months ago to try to lower his blood pressure. He was on four different blood pressure medications — a beta blocker, a vasodilator, a calcium channel blocker, and an angiotensin receptor blocker.

We created a plan based on Manuel's risk profile to gradually taper and eventually discontinue two of the hypertension drugs he was on. Once he stopped taking these drugs, his symptoms of lightheadedness and fatigue stopped completely. His blood pressure also remained stable over the following year.

(*not patient's real name)

Interventions to address medication overload



What is Shared

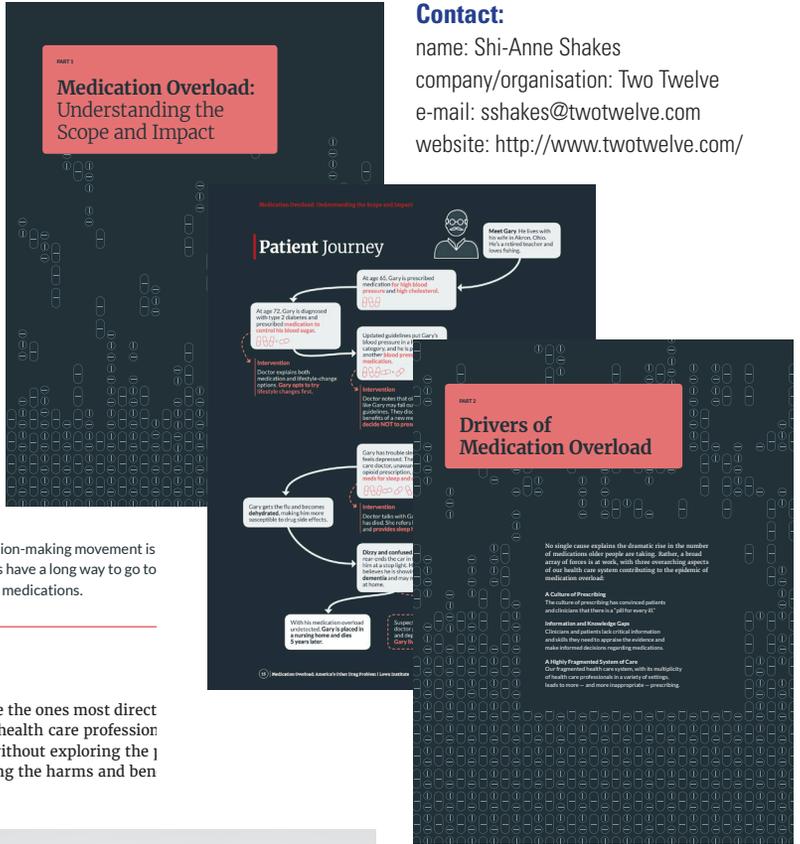
In recent years, clinician critical element of a trust ask patients about their of the potential harms a patients to be active par able to learn about their cards, brochures, videos essential information th

Despite its power to im plement in practice. F decisions, and clinicians patients within a matter include an adequate exp treatment options.

Thus, while the shared decision-making movement is important, medical practices have a long way to go to making into decisions about medications.

Empower patients and families

Patients and families are the ones most direct decisions, yet too often health care profession decisions unilaterally, without exploring the preferences, or explaining the harms and ben



Contact:
 name: Shi-Anne Shakes
 company/organisation: Two Twelve
 e-mail: sshakes@twotwelve.com
 website: http://www.twotwelve.com/

Prevalence of polypharmacy and medication overload: The "new normal"

The 21st century has already become the Era of the Prescription. In 2000, half of adults in the U.S. were taking at least one prescription drug. By 2013, that number had grown to nearly 60 percent. Not only are more people taking prescription drugs, they are taking a greater number of drugs. From 2000 to 2013, the proportion of adults in the U.S. taking five or more drugs nearly doubled, from 12 percent to 23 percent.

Prescription drug use has become the "new normal" for people of all ages, but especially older people. About 90 percent of people in the U.S. over age 65 take at least one drug, 23 percent take five or more drugs, and at least 18 percent take five or more drugs per month.

From 1994 to 2014, the proportion of older adults taking five or more drugs tripled, from 13.8 percent to 42.4 percent. In taking over-the-counter medications and supplements, 67 percent of older people regularly take five or more drugs.

- Groups with higher risk of medication overload**
- Long term care residents: The rate of polypharmacy is 40 to 50 percent higher for residents in long-term care facilities compared to older adults living in the community.^{1,2}
 - Cancer patients: As many as 84 percent of older cancer patients are taking five or more medications.^{3,4}
 - Low income seniors: People who are dual-eligible for Medicare and Medicaid have 25 percent higher rates of chronic conditions, increasing their risk for medication overload.⁵

Prevalence of Polypharmacy

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