Mindful Medicaid
Nudging expectant mothers and children toward preventive care

A report by the Center for Government Insights
Deloitte's Medicaid state health practice solution aims to assist states with effectively addressing key implementation challenges from new federal mandates and, within their Medicaid programs, continuing Medicaid cost reduction efforts, and ongoing services, such as Medicaid rate setting.
Imagine you are an obstetrician. A woman comes into the hospital in active labor. Before going in to greet her, you look at her chart and learn that she is 29 weeks pregnant. She’s about to have a preterm baby, and you begin to worry about some of the outcomes associated with premature birth: learning and behavioral problems, lung conditions, vision and hearing loss, and childhood disability. You draw on all your years of training and the latest advances in medical treatment to increase the likelihood of a positive outcome, but you wonder how, if at all, a preterm birth could have been prevented.

There are many factors that put babies at risk for preterm birth. Some are biological and medical factors. Teens and older women are at higher risk of having a preterm baby, as are women carrying more than one child or who have had premature babies in the past. But there are also behavioral factors, such as smoking, drinking, and using drugs. Lack of or delayed prenatal care also contributes to the likelihood of a preterm birth.

Preterm birth impacts one in ten babies in the United States, a rate that is higher than in other developed countries. On top of the social, medical, and financial hardships incurred by families whose babies are born with health problems, the cost to society is significant as well: By one estimate, the minimum annual cost of each preterm birth is $51,600, which includes medical care, maternal delivery costs, early intervention services, and special education services. In health care costs alone, preterm babies cost, on average, 10 times more than full-term babies during the first year ($38,438 vs. $3,953 in 2012).
Medicaid covers roughly one-half of all childbirths and 40 percent of children in the United States. As a result, Medicaid budgets are disproportionately impacted by the health care costs associated with preterm births. Pregnant women on Medicaid are also more likely than women with private insurance to wait until their last trimester to receive prenatal care or to skip prenatal care altogether, which places them at higher risk of having a baby with birth complications.

Given the costs associated with preterm birth, the Center for Medicare and Medicaid Services (CMS) and state Medicaid agencies across the country have a financial incentive to reduce the incidence of preterm birth. Because Medicaid and managed care plans play such a significant role in the health care of pregnant women and children, they are also uniquely positioned to influence the health outcomes of large portions of the population.

Medicaid programs and Medicaid managed care organizations (MCOs) have undertaken a variety of initiatives to improve birth outcomes and childhood wellness. Many states provide nicotine replacement therapy (NRT), medication, and smoking cessation counseling to pregnant women. A number of Medicaid agencies have engaged the Nurse-Family Partnership, a nonprofit that arranges home visits from registered nurses to low-income, first-time mothers. The partnership provides women with knowledge and support to help them have healthy pregnancies and take care of their children. A number of states have implemented programs in which monetary rewards are offered to women who attend prenatal or well-baby visits. Some of these programs have been successful, some less so, and some are still being evaluated.

Pregnant women who qualify for Medicaid are, by definition, low or moderate income. Pregnant teenagers are disproportionately covered by the program. Some populations covered by Medicaid, especially those with lower incomes, may face a host of barriers to accessing health care services, even when they’re free. These can include, but aren’t limited to, difficulties accessing transportation, lack of child care, and homelessness. Taken together, these factors can make the adoption of healthy prenatal care and behaviors more difficult. While improving maternal and child health in the Medicaid population is not a simple task, insights from behavioral economics may be applicable.

**Focus the microscope:**
**Drawing from behavioral science to promote maternal and child health**

Behavioral science incorporates aspects of standard economics, psychology, and neuroscience to better understand why people often make economic decisions that aren’t necessarily rational, including those related to health and wellness. (See the sidebar “A Deloitte series on behavioral economics and management” for more information.)

New and expectant mothers face many decisions, including but not limited to health-related decisions, and they may not have the time or energy to devote toward wellness. Programs that empower pregnant women and new parents to undertake healthy behaviors more easily may be helpful in encouraging actions that align to positive long-term
Nudges incorporate low-touch and often low-cost methods that help people take action now for the benefit of their future selves. To tap into Medicaid participants’ intrinsic motivations, behavioral nudges can be infused into a number of policy tools. Both within health initiatives and beyond, behavioral nudges can be applied to at least three areas relevant to Medicaid:

1. **Messaging.** Communications that incorporate behavioral messaging can resonate with people to spur new action. This may include leaning on positive peer pressure to encourage proactive behavior.

2. **Choice architecture.** Government programs can sometimes be heavy on technical language and light on user-friendly design. Little things like considering what barriers exist in program initiatives or even what the default option is can have disproportionate effects on outcomes.

3. **Program tools.** The tools provided to Medicaid participants can have a significant impact on behavior without requiring large system overhauls. These could be as simple as providing participants with resources to make a plan for doctor visits.

To illustrate how program directors can take these insights back to their own states and work with MCOs to implement them, this article dives into how behavioral design and nudges can increase prenatal care engagement and establish positive early childhood wellness practices.
When choice overload impacts prenatal care

When it comes to preparing for the birth of a child, expectant mothers and new parents are often faced with a large number of choices. Early on in their pregnancies, women are typically asked to attend a number of regular doctor’s visits, take a variety of supplements such as prenatal vitamins, abstain from smoking and alcohol consumption, and maintain a healthy weight. One reason why expectant moms may find it difficult to adhere to parts of their prenatal regimen is because they may feel overwhelmed by the number of choices they are being asked to make. Which ones are most important? Which seem achievable? In the behavioral sciences, this phenomenon is called choice overload: When having to decide between too many choices (or being inundated with too much information), people become overwhelmed and in many cases, delay making any choice at all.

Choice overload can be a challenge in even the most mundane situations. In one study, shoppers were separated into two groups and were presented with a choice of either six or 24 jams. Though more people stopped to look at the 24-jam selection, the group that was presented with six jams was eight times more likely to actually make a purchase.

While forgoing a decision on which jam to buy is fairly low stakes, choice deferral for prenatal health activities can have more significant consequences. The behavioral sciences can help address choice overload through more tailored messaging, choice architecture, and program tools.
Messaging: Leveraging the power of social proof

MEDICAID programs use a variety of mediums to target messaging to pregnant women such as running television and radio ads and placing printed materials throughout the community. These forms of outreach can be effective at making people aware of what the program can offer, but as important as the method is the message itself. If these messages are not calibrated to speak to intrinsic motivations, they could be at risk of falling on deaf ears.

Socially driven messages have proven to be incredibly effective in a diverse set of contexts.

Social proof is often a powerful way to motivate new action. In practice, it gently nudges behavior by demonstrating how others react to similar circumstances. Armed with this knowledge, people often gain the confidence to make new decisions. It may just sound like peer pressure, but these socially driven messages have proven to be incredibly effective in a diverse set of contexts.

Consider Amazon’s recommendation tool, “People who bought X also bought Y.” When consumers are informed about what others preferred, they may often gain greater confidence that they are making the “right” choice for themselves. In general, the more specific these messages can get, the more effective they are. This is illustrated in a study concerning hotel towel usage. In 2008, researchers conducted an experiment in a mid-sized, mid-priced hotel in the Southwest of the United States that was part of a national hotel chain. In 190 different rooms, they experimented with two different types of messages to encourage hotel guests to reuse their towels, with the goal of testing which message was more effective. Messages that appealed to social norms, like “the majority of guests in this room reuse their towels,” were found to be 26 percent more effective than those that simply emphasized the environmental benefits of reusing towels. Because the message was specific about people in the same hotel room, it set the standard for how you should behave. Knowing how others behave can often trump explaining the merits of a decision itself.

Currently, the Louisiana Department of Health is teaming up with 2Morrow Inc. to apply some of these socially driven messages to help expectant parents quit smoking. The 2Morrow Inc. smoking cessation app, SmartQuit, regularly alerts soon-to-be parents of success stories of how others, under similar pressures, were able to quit smoking to achieve their goals. While SmartQuit is relatively new, initial results have shown that the app outperforms its competitors.

Encouraging women to quit smoking during their pregnancies is not only important for the unborn child, it can also improve the long-term health of women and their partners. Among women who quit smoking during their pregnancies, less than one-half start smoking again within six months after delivery. When a person’s spouse quits smoking, the partner’s chances of smoking, in turn, decreases by 67 percent, a testament to the power of social networks and social proof. In general, expectant parents are great targets for healthy behavior interventions because behavior is easier to change when
other major life events are already being disrupted, like starting a family, moving to a new city, or having surgery.23

**Choice architecture: Remove the barriers, make it easy**

While research shows that the payoff of receiving preventive care is substantial, especially for new and expectant mothers, even small hurdles can present significant obstacles. For example, how far a person lives from a medical facility can be a strong predictor of how much they’ll use the health care system, even when the relative distances are pretty small.24 For many, lack of child care or a reliable form of transportation can make even small tasks, like attending a checkup, difficult to accomplish.

At its heart, choice architecture is about fostering an environment that makes the best long-term decision easier by removing the short-term barriers—especially when time is short and choices are vast. One frequently used nudge to improve the choice architecture is *smart defaults*.25

**Make the default option the best option**

Behavioral science reveals that people are more likely to stick with a default option (the option you get if you choose to do nothing) than they are to actively make a new, alternative choice. This is true even when the cost (be it time, energy, or money) of changing the default is small and the importance of the decision is great.25 Think of the default option as simply the status quo. For example, in many cases, employees are not automatically enrolled in a retirement plan through their employer; rather, the employee needs to actively select one. In this case, the default is no retirement plan, while the proactive route is to enroll.

A seminal study from the field showed that employees are more likely to save for retirement if their organizations automatically enroll them in a plan compared to those who must actively enroll.26

Choice architecture is about fostering an environment that makes the best long-term decision easier to make.

Drawing on this evidence, since 2010, civilian federal agencies have automatically enrolled new hires into a retirement plan. Their enrollment rates are now almost twice as large as military employees at the Department of Defense, who are not automatically enrolled (87 percent vs. 44 percent).27

There is evidence that states can apply these same principles to increase the rate of immunization. Vaccines are both important for preventing the spread of lethal and debilitating diseases and one of the most cost-effective health interventions available. However, children who live in poverty are more likely not to be vaccinated or to receive only a partial course of vaccines than are children from higher-income households.28 One study shows that staff and faculty at a university were more likely to get a flu shot if they were automatically booked for one and sent an email with the location, date, and time of the appointment compared to those who were only informed that free flu shots were available and directed to a site where they could book the appointment themselves.29 (Those who were automatically booked were also given the option to change or cancel the appointment.)

Similarly, *automatically booking children to receive services such as immunizations* (while offering the flexibility to change it) could increase vaccination rates by simply allowing people to forgo the need to make yet another decision. These defaults may also be applicable to flu vaccines for expectant mothers (and the general Medicaid population).

These defaults could also be directed toward helping expectant mothers initiate Medicaid enrollment. (See sidebar, “Enrollment, the new default for low-income women?”)
ENROLLMENT, THE NEW DEFAULT FOR LOW-INCOME WOMEN?

Medicaid eligibility is not always as obvious as one might think. In some cases, a woman might be ineligible for Medicaid until she becomes pregnant and may have been previously uninsured. But in order to access prenatal care, many pregnant women first have to get over the sign-up hurdle. This can prove especially difficult if they are unaware that their pregnancy means they are now eligible for Medicaid.

Over the last few years, many programs have streamlined Medicaid eligibility by leveraging information available from other government services. There are currently 10 states that have implemented Express Lane Eligibility (ELE) initiatives. To date, these initiatives have been directed primarily toward signing children up for coverage. ELE allows states to use data about a child’s household income and participation in a variety of public programs, including food stamps, School Lunch, the Temporary Assistance for Needy Families (TANF) program, Head Start, and Women Infants and Children (WIC) food and nutrition service, to find children who might be eligible for Medicaid or other public health insurance. When these families are “flagged,” the state sends a packet to their residences with a simplified, half-page application for the family to complete.

With ELE, the work of signing up for coverage happens before a family even knows they are eligible. Forms are pre-populated, and no further proof is necessary. As one might predict, the policy has significantly increased child enrollment in public coverage.

However, these ELE initiatives have not been as prevalent for pregnant women. Massachusetts is currently the only state in the country that has implemented ELE for pregnant women and only for the purpose of renewing coverage rather than initiating enrollment. States could use the same mechanism by which they identify low-income children for ELE and apply it to low-income women of child-bearing age. Pre-populated forms could be sent periodically, reminding women that if they are pregnant, they are likely eligible for Medicaid.
Sometimes, even when people have certain barriers removed, they are still not able to commit to behaviors that are in their long-term health interest. The need may not seem urgent enough, or they may simply forget. For example, they may forget to attend appointments or take medications. The behavioral sciences offer some insights into how to nudge people to commit to a course of action and mitigate forgetfulness.

Helping people make commitments—to themselves

Evidence shows that having a specific plan to achieve a goal, sometimes called an implementation intention, can increase the likelihood that individuals will follow up with an action. The idea is that when people articulate the when, where, and how of completing a goal, a cognitive link is made between the intended behavior and the future action.

The New Mexico Department of Workforce Solutions applied these commitment devices in a program they developed to get unemployment beneficiaries back to work more quickly. When beneficiaries signed up for benefits, they were asked to make specific commitments to job-seeking activities, such as submitting a certain number of applications or attending interviews, which were then built into their daily routines. The experiment showed that encouraging beneficiaries to make specific commitments to future activities helped them to follow through on their job search intentions and resulted in people getting off unemployment benefits more quickly.

Research has also shown that getting out the vote is more effective when people are asked to develop an implementation plan specifying where their voting site is, how they will get there, and when they plan to go vs. receiving a more generic phone bank message reminding them to vote. The Obama campaign leveraged the use of commitment devices by having volunteers ask potential voters to sign a “voter pledge card.” Although these are informal and voluntary agreements, they tend to work because people like to honor promises they have made to themselves.

For pregnant women, implementation intentions could be applied to planning the when, where, and how of getting to a prenatal or well-baby visit. This might include organizing child care, coordinating transportation, or searching for a health care provider that is open at a time that suits their schedule and then making a specific plan to get there.

Going public with commitments

There’s another dimension to commitment devices that can also be powerful in motivating action: They can be transformed into social endeavors. As we saw earlier with social proof, people put a lot of stock in how they measure up to others. Reciprocally, they also care a lot about what others think of them.

Say you announce to your friends that you’re no longer eating fast food. It would be a little embarrassing if, soon after, a friend caught you leaving a fast food chain holding a takeout bag. This is because when you told your friends you were chasing a goal,
you were actually making a “social commitment.” By going public, you may have subconsciously been hoping that your friends would hold you to it. Indeed, a study in Kenya showed that social commitments were the most effective approach at getting people with even the most limited financial resources to save money, compared to other approaches like earmarking funds or “mentally labeling” them.39

If commitments can motivate those with little money to save more, they could also encourage parents and soon-to-be parents to follow through with their health care regimen. The behavioral sciences-inspired commitment contract website, Stickk.com, applies these same principles to help people achieve any number of personal goals. When someone wants to start exercising, they publicly set a goal on the website and have the option of putting money on the line or simply assigning a coach to “referee” their commitment. Similarly, Medicaid can work with enrollees to identify any barriers to receiving prenatal care and employ similar tactics (while encouraging them to involve their partners, families, or friends to help them “stick” to their regimen). The evidence suggests that putting together a simple, but specific, action plan can increase the likelihood that patients make it to their prenatal and early childhood appointments.

Timing can be everything

People can forget to act even when they intend to, and even small distractions can prevent action.40 In these cases, infusing behavioral change theory with technology may offer a solution. Notably, the vast majority of low-income individuals have mobile phones (92 percent) and nearly two-thirds own smartphones.41 Medicaid agencies can consider using these mobile technologies to mitigate forgetfulness.

One easy way to do this would be for more Medicaid agencies to utilize the mobile app Text4Baby, which has partnered with the Center for Medicare and Medicaid Services (CMS) since 2012. The app delivers personalized maternal and child health information that is tailored to pregnant women and infants.

The California Department of Public Health and Immunize Nevada partnered with Text4Baby to implement appointment reminders for well-baby visits and the Hepatitis B vaccination. It found that appointment reminders increased the show rate by six percentage points for doctor visits and five percentage points for immunizations.42 At least one nonprofit has caught on and is requesting funding to make this service free to pregnant women in its state.43

Given the success of these programs and the unique role that Medicaid plays in maternal and child health, more Medicaid agencies might consider allocating their own funds toward similar initiatives. One Deloitte study suggests that the majority of consumers welcome the point-in-time feedback that mobile devices offer for medication adherence.44 These low-cost reminders can facilitate healthy habits and reduce long-term complications for parents and their children.
Getting started: Bringing these insights back to your state

We’ve covered a myriad of ways that behavioral insights can inform messaging, improve choice structures, and create better tools for patients to interact with on their own. (See figure 1 for a summary of the concepts covered.) The behavioral interventions we cite have been shown to achieve success at changing behavior in general, and health behavior in particular.

For program directors and MCOs looking to apply these insights to their Medicaid population, consider these three steps:

1. Develop a hypothesis. Where do you believe your program is falling short? If it’s the message, consider a more socially driven communication.

2. Establish evaluation measures. Whatever initiative you settle upon, test it. Collect quality data and rigorously evaluate its effectiveness.

3. Revise accordingly. Did the test produce positive outcomes? If not, test another hypothesis. Maybe this time look to improve the choice architecture.

As this article illustrates, a rich body of evidence is developing to inform Medicaid programs about which nudges resonate most. For Medicaid programs that effectively leverage these behavioral principles, the potential payoff is significant—better health outcomes at lower cost.

Figure 1. Connecting behavioral concepts to Medicaid opportunities

<table>
<thead>
<tr>
<th>Area of focus</th>
<th>Behavioral concept</th>
<th>Medicaid opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Messaging</td>
<td>Social proof to motivate behavior and inspire confidence</td>
<td>Could help expectant mothers quit smoking</td>
</tr>
<tr>
<td>Choice architecture</td>
<td>Smart defaults to make the best choice, the path of least resistance</td>
<td>Encourage Medicaid enrollment and increase vaccination rates</td>
</tr>
<tr>
<td>Program tools</td>
<td>Commitment devices to articulate plans and engender positive reinforcement</td>
<td>May increase likelihood of receiving prenatal care and staying healthy during pregnancy</td>
</tr>
<tr>
<td></td>
<td>Reminders embedded in technology to minimize forgetfulness</td>
<td>May increase vaccination rates, prenatal visits, and well-baby visits</td>
</tr>
</tbody>
</table>

Source: Deloitte analysis.
ENDNOTES


11. Ibid.


18. Ibid.


23. Ibid.


33. Kaiser Family Foundation, “State adoption of Express Lane Eligibility for children’s Medicaid and CHIP enrollment and renewal by state.”


35. Forehand and Greene, “Nudging New Mexico.”

36. Ibid.


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