The Business Case for Information Therapy in Health Plans

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**Information therapy** is the timely prescription and availability of evidence-based health information to meet individuals’ specific needs and support sound decision making. For a health plan, information therapy can be the start of a new era of success.

**Managed Care’s Formula for Success**

To achieve success a health plan must do three things better than its competition:

- **Design the Right Plan**: Health plans must design an actuarially sound plan that appeals to employers and meets the current needs of the consumer. These days, a plan should emphasize consumer choice in providers and consumer involvement in decisions.

- **Grow and “Refresh” the Subscriber Base**: A health plan cannot “age in place” and remain stable. It must retain low-utilizing members and continuously bring in new, low-risk members to counteract the increased utilization of an aging subscriber base.

- **Manage its Medical-loss Ratio and Administrative Costs**: A health plan must use the right blend of good provider contracts, good monitoring technology, and good communication to assure that medical care delivered to its members is high quality and evidence-based. And, it must minimize the cost of administration by shifting person-, phone-, and paper-based transactions to the Internet.

These three things make up the basic formula for health plan success. But to feel safe as an organization, a health plan also needs to gain ground on the image battles raging in the press, public, and legislatures that regulate the industry. To achieve a better public image, health plans must strengthen their relationships with the press, public and government.

This white paper presents in detail how information therapy contributes to critical factors for health plan success.

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Health plans that implement information therapy will have more competitive plan designs, greater increases in low-risk market share, and lower medical-loss ratios than health plans that don’t.

What is information therapy? I don’t understand how information therapy works.

Any Ix™ application involves three things:

- **Information triggers** already collected by the health plan can identify, categorize, and describe the diagnosis, treatments, and characteristics of a specific patient (e.g., a referral made by Doctor X to Doctor Y for Patient Z for ICD9 diagnosis code 999.9 contains a string of information triggers).

- The context of the information triggers are used to identify the member’s specific “moment in care,” which defines the immediate health and medical issues that the member is most likely to be facing (e.g., a referral to orthopedic specialty for low back pain).

- Attached to every moment in care is a “menu” of evidence-based medical content that is medically valid and specifically useful to help that member face his or her medical issues (e.g., a menu of information on back pain).

Some level of information therapy occurs every time specific data about a member is used to select and present information to that member. The more specific the triggers become, the tighter the moment in care is defined and the more useful the information prescription becomes.

**Two “aha” moments**

You will start to understand information therapy when you come to realize two things:

- Ix changes the role of information in health care from information being “about” a patient’s care to information being “an essential part of” a patient’s care.

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Information therapy is a term in generic use.
• Health care delivered without information prescriptions is incomplete. No care should be delivered without its information component included and documented. When it is, the health plan can step up and fill the gap in a value-added role.

Is this really new? How is information therapy different from patient education, health promotion, or wellness?

In many ways the goals are the same, but the technology, delivery, and outcomes are remarkably different. Information therapy gets the right information to the right person at the right time by integrating the delivery of information into the health plan’s information system.

Most health plans have been able to promote broad-based health promotion and wellness programs like smoking cessation, stress management, or health risk assessments. However, no plan has integrated patient education to the point that most patients receive specific information about each new diagnosis.

In recent years health plan-sponsored disease management programs, often under pressure from HEDIS measures, have extended the health education reach to members with diabetes, congestive heart failure, asthma, and other chronic diseases. Information therapy takes that advancement much further into the health needs of any person in the population. With information therapy, health education can reach every member with timely, relevant information about each and every health concern, test, or procedure that the member faces.

For some health plans, getting the right information to the right person at the right time has already become “mission-critical.” Once a plan goes after the “young and wired” market to refresh its member base, information therapy becomes essential to its operation and success. For example, in 2003 a group-practice model health plan began running ads to attract “the new consumers” who value information, e-convenience, and more control over their health decisions—the demographic that is most likely to bring a low medical-loss ratio. Within that competitive strategy lx applications become central to attracting e-consumers.

Implementing lx technology early puts the plan in good position to be successful with the part of the market that will bring them the most success.

The technology behind information therapy allows for three things:

• Personalization—Information prescriptions are written for and addressed to a specific member.
• Targeting—Information prescriptions are targeted to an individual member’s moment in care. They are directed at helping the member manage problems and concerns at each stage of his or her condition and care.
• Documentation—Information prescriptions are documented as part of the member’s health plan record.

By targeting a personalized message to a person’s immediate health concerns, the health plan becomes a positive ally of the member.

Health plans that take the lead in lx implementation will gain a competitive advantage. Plans that are slow to move will fall behind in the public’s eye. Once behind, it may be difficult to close the gap. Retention rates and market share may suffer. Information therapy will make a difference on the bottom line.

Four examples are presented here to help you understand the concept. Each application provides a win-win scenario in terms of benefits for both the member and the health plan. The examples begin with the easiest applications and end with those that require more effort, yet promise greater rewards.

Example 1: Personal notices for preventive services

One easy place to start an lx program is with preventive services. Many plans have been doing something like this for years. It is a win-win-win scenario. The member wins by gaining health protection that has been proven to be effective. The provider wins both because lx supports good medicine and usually leads to increased provider revenue (at least in the short-term). And, the health plan wins because prevention will reduce the long-term cost of care, meet HEDIS requirements, and boost its image—particularly with the low-risk members it wants most to retain.
The list of well-proven primary and secondary preventive services that remain underutilized includes:

- Immunizations.
- Mammography screening; pap smears.
- Prenatal care.
- Diabetic treatment including retinal exams, foot care, and appropriate testing.
- Depression detection and treatment.
- Hypertension detection and treatment.

Because the appropriate target population for each of these services is usually identifiable through the health plan records, plans can begin sending out information prescriptions to each person in the targeted population on a schedule matched to when he or she last received the preventive service.

The core of the application not only reminds the member of a recommended service but also provides the decision support that helps the member make a better decision. Preventive services particularly appropriate for highlighting in an Ix application include:

- Services in which appropriate users can be identified by age, sex, prior history of preventive services, and other documented factors.
- Services for which a personalized reminder message could be linked to decision guides that present a balanced view of the pros and cons of the service to help the member’s decision.

What are benefits of information therapy for preventive services?

Plan Design Benefits:

- Adding a preventive services information benefit to the plan design adds little cost and gains valuable points in the design.
- The focus on prevention looks good to employers.
- By setting up the member to make an informed decision, the plan shows a commitment to patient-centered care. The benefit will help bring in new accounts and likely reduce long-term health plan costs.

Market Growth and Market Refresher Benefits:

- An information benefit that proactively prepares people for decisions about immunizations, mammography screening, prenatal care, diabetic retinal exams, and other well-proven preventive services is attractive to healthy employees and a positive factor particularly in plan selection.
- Many quality measures compare the actual use of preventive services with those recommended by medical guidelines. An Ix program, as described here, could result in substantially improved HEDIS scores and more positive ratings in the plan-selection process.

Medical Management and Cost Reduction Benefits:

- Immunizations, prenatal care, and other preventive services are clear winners in reducing overall costs. Increasing the use of those services results in health care savings sometimes in the short run and always in the long run.
- The program will also support the use of lower-cost, Web-based services for interactions between the subscriber and the plan. Each time a preventive message is sent, the member-access door to the health plan is opened. Each interaction makes the person a little more ready to walk through that door the next time they need to contact the plan. This helps to bring down costs.
- By shifting the media of communication from phone and paper to the Web, information therapy may also reduce the cost of HEDIS improvement efforts—even while achieving higher scores.

Relationship Benefits:

- Clinicians who gain revenue by providing the preventive services will also remember and appreciate the health plan’s efforts. Every positive piece of the plan-physician relationship helps.
- Members, particularly those who use few medical services, will notice and appreciate the prevention messages. Every personal message from a health plan with no “gotcha” attached has a positive effect on retention. Messages that encourage the person to spend the health plan’s money on a preventive service for them generates an exceptional feeling of support. The health plan presents the clear message that it cares, which helps to restore trust.
• Television advertising about preventive service coverage and reminders can create the right public image for the plan and increase a general level of good will.
• The information benefit for preventive services makes for good press. It is hard to find the negative side of this story (e.g., “Health plan tricks members into better health”).

Example 2: Information prescriptions for every medical test
Information therapy with medical testing is another easy place to start for many health plans. Most tests are trackable by their CPT medical test codes, and the flow of claims data for testing is getting closer and closer to real time. While the overall impact on medical management may be small, an Ix application in this area will provide a positive experience for the member and will help all the players become familiar with how the information prescription process works.

1. The health plan receives a claim for a medical test, identifying both the patient and the CPT code, and assigns a “post test” moment in care classification.
2. The member receives an e-mail saying that important information about his medical test has been added to his member portal page.
3. The member enters the secure portal.
4. The member selects from a menu of evidence-based information related to the results of the test.

Message text:
Dear Mr. Morrison:
Our records show that you have recently received a cholesterol test from Riverview Medical Center. We offer the following related information to anyone who receives the test:

- Cholesterol Test Overview
- Cholesterol Test Results
- High Cholesterol: Home Treatment

We hope that you find the information of interest and of value.

Sincerely,
Jane Gooded
Member Education
ABC Health Plan
What are benefits of information therapy with every medical test?

Plan Design Benefits:
• If employers are looking for plans with patient-centered features, an information therapy benefit for medical tests will be attractive. It responds well to the market demand to deliver information to the consumer. The cost is low.

Market Growth and Market Refresher Benefits:
• Providing information prescriptions with every medical test provides evidence to both employers and prospective members that the health plan is focused on the member. It provides a low-cost, highly visible differentiator for the plan.
• The young and wired want electronic access to their records. A phone call saying “your tests came back OK” is no longer good enough. These patients will expect to see their test findings and the information to help them understand and act upon the results.

Medical Management and Cost Reduction Benefits:
• Because testing often happens at the onset of an illness, connecting the member with good information on the plan’s Web site early can lead to better informed treatment decisions later in the treatment process.
• Increasing consumer knowledge about interpreting medical test results can help them avoid medical errors in the treatments that follow.
• The program opens the door to less expensive, Web-based transactions for the member. Every transaction shifted from the phone or in person to the Web saves the health plan money.

Relationship Benefits:
• Because testing happens fairly often, this application will give members a frequent reminder that the plan is not just there to pay the bill but can be a helpful information resource as well.
• This application is very supportive of the provider by reducing the burden of explaining to their patients lab results that are normal or not clinically relevant.

Operational Cautions:
Some test results should not be delivered first through the portal. Working with its clinicians, the plan should identify certain tests and results that can only be placed on the portal after the clinician has presented the results in person. Likewise, the plan may want to allow an “opt-out” option for physicians who would prefer that their patients not receive test information prescriptions. When done well, however, most physicians will embrace the program as something that is good for their patients and their practice.

Example 3: Information prescriptions at referral points
Medical care is full of handoffs: PCP to specialist, specialist to hospital, hospital to nursing home, hospital to specialist, specialist to PCP. The referral or transfer transaction record has all the information that a health plan needs to send important information to the patient and/or the family at that moment in care.

For the member, receiving information at the time of the referral is particularly important. It is at those points that members are most engaged in their future treatment options.

Referral-triggered information prescriptions are also more “socially acceptable” to clinicians since one doctor is ending primary control of the patient while the other may not yet have picked the patient up. It is a golden moment for health plans to safely contribute to the patient’s education. The Ix information prescription usually comes at just the right time for the evidence to influence the member’s decisions about the treatment options that follow.
Dear Ms. Clark,

The following tests and procedures are currently being considered by you and your doctors:

- **MRI for Low Back Pain** - click for more on MRIs
- **Surgery for Low Back Pain** - click for a decision guide to help you and your doctor determine if surgery is best for you.

Use this information to discuss with your doctor what tests and treatments are best for you.

Mary Smith,  
ABC Health Plan

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**Should I have surgery for a herniated disc?**

**Introduction**

This is a general overview of issues that are important as you decide whether to have surgery to treat a herniated disc. It is designed to help you learn about your choices and to prepare you to work with your health professional to make the best decision for you.

**Key points about herniated disc surgery**

Key points are important factors in any given medical decision. In this case, you need to know that:

- Herniated disc surgery offers the most benefit and relief for people with severe symptoms caused by a herniated disc.
- There is currently a lack of scientific evidence that points to the best timing of herniated disc surgery.
- People who have herniated disc surgery usually have better pain relief over a 4-year period than people who do not have surgery. However, these early benefits may decrease over time.
- In one study of people 10 years after their herniated disc treatment, there was no clear difference between people who had surgery and those who had nonsurgical treatment.
- For some people, surgery may help speed recovery from the symptoms of a herniated disc.
- Herniated disc surgery is performed at higher rates in some geographic areas than in others. This seems to be influenced by health professionals offering criteria for identifying disc problems that can benefit from surgery.

If you are looking for general information about herniated discs, see the topic [Herniated Disc](#).
The benefits of referral-triggered Rx plan design benefits:

- Adding a referral-based information therapy benefit can be very exciting to employers. They know how challenging it is to find a way to interact with patients at key decision points without upsetting the clinician. Delivering information prescriptions right at the referral point will make good sense to employers and add to the factors in favor of a health plan.
- While it is untested and unproven at this point, the impact on treatment decisions is likely to reduce overall costs and increase member satisfaction.
- The application should work well with many PPO and Point-of-Service plans.

Market Growth and Market Refresher Benefits

- With every referral comes a new set of bills and administrative worries for the member. Balancing those negative messages with an information prescription of helpful and timely information can help remind the member that the plan is a true resource and not a barrier to care. Higher member loyalty and an increase in word-of-mouth referrals should follow.

Medical Management and Cost Reduction Benefits

- Because the referral to a specialist is often the perfect time for a person to begin learning about his or her treatment options, information prescriptions can be particularly useful in preparing the member to make better decisions about specialty care.
- Increasing consumer knowledge about treatment options can help the member “engage” enough in the care process to help spot and prevent medical errors.

Relationship Benefits

- Most physicians react poorly when patients come in misinformed about their health condition. On the other hand, physicians appreciate a patient who is well informed by evidence-based information. Because the information comes before the specialist has invested the time and energy in educating the patient, he or she can fine-tune their use of the limited-teaching time to cover gaps or areas in which the patient is most concerned. This application can be positive for both the primary care physician and specialist.
- The new consumer wants information and involvement in health care decisions as a high priority. Getting high-quality information just at the referral time is a big plus for the member. It helps to build trust in the health plan and creates a significant loyalty factor when renewal time arrives. It also provides a fine opportunity for word-of-mouth promotions in the health plan’s favor.
- Providing evidence-based medical information at key medical moments can also attract positive attention from the press. As long as the information is clearly credentialed and from a trusted source, the press and the public will see this as a step that builds and helps to restore trust in the health plan.

Example 4: Information prescriptions in lieu of pre-authorizations

Pre-certification and utilization review (UR) policies were implemented by health plans to reduce the number of certain elective and expensive procedures that were unnecessarily ordered for a patient. But the preauthorization process has been beset by major problems:

- Physicians hate to ask permission for a procedure particularly if they have to challenge denials on a regular basis just to deliver the care that the patient needs.
- Consumers distrust the basis for denial decisions and rarely “get” the message that it is focused on quality rather than cost reduction.
- The overall impact of UR programs on the bottom line had been relatively small. Utilization Management indicates approximately five percent. (Utilization Management: Issues, Effects, and Future Prospects, Annual Review of Public Health, 2002, 23:233-54.)
- And, the process is expensive to administer.

It is no wonder that many health plans have followed United Health Group’s lead to drop or reduce the practice of pre-certification and utilization review.

Progressive health plans that wish to lead in the patient-centered health care space could selectively replace their UR process with an information prescription program that would be more clinician-friendly, gain stronger member support, and move medical practice closer to the desired evidence base.
For almost every major treatment option, the evidence base used to determine whether the procedure is needed remains incomplete. While the evidence for or against one treatment may be definitive at each end of the continuum, there is usually a large “grey area” in the middle in which clinician and patient preference interact without clear direction from the evidence. It is largely in these grey areas that geographic variations in medical care occur.

Surgery for low back pain is a good example. The evidence is clear in the black and white areas of the back pain spectrum. In the case of surgery for herniated disc, if there is no documented evidence of nerve damage, surgery is not medically justified. If there is clear evidence of nerve root compression with severe pain and significant muscular weakness continuing after four to six weeks of non-surgical treatment, medical science clearly points to surgery. However, the vast majority of low back pain sufferers are somewhere in the middle. They may have varying degrees of ongoing pain and no muscular weakness. In these situations, patience is a virtue as nonsurgical treatment tends to have the same outcome as surgery.

Without information therapy, treatment decisions for such middle-ground situations have been mostly dependent on clinician factors such as where the physician trained or what the norm is in his or her practice group.

Both factors contribute to the broad geographic variances mentioned above. While the high variance has tempted many health plans to require pre-authorization to impact those practices at the high end of the surgical rate spectrum, in practice only a few surgeries are prevented by the interventions.

Information therapy may be more effective than the core pre-authorization program because it pushes the grey-area decisions more into the hands of the patients who may be more risk averse than their physicians. Here’s how it would work: (see page 9)

1. The health plan tells physicians it will drop the UR review requirements for the vast majority of procedures in exchange for expanding their disease management initiatives to cover all medical problems. The physician is still required to notify the plan of each service ordered but they will no longer experience denials from the plan.
2. The Ix system receives the notification from the clinician specifying the patient, diagnosis, and procedure using standard codes. The moment of care is “procedure decision point.”
3. The Ix system sends a secure message to the member’s home page and an e-mail instructing the member to pick it up.
4. The member reviews the information and then makes an informed decision with the clinician.
5. The member can call a nurse/care counselor if needed and available.
Questions of interest for Ix in lieu of pre-authorizations:

• How can the plan get the physicians to accept the health plan sending information on surgery to a patient after the surgery is recommended?
• Is dropping UR enough incentive for physicians to accept the Ix notices?
• Will the information come too late to impact the treatment decision?
• Even if the decision is to “go” with the medical procedure, will the information help the member prepare for it, avoid medical errors, and contribute to its success?
• Will the switch from UR to Ix really result in lower overall costs?

Clearly, the potential benefit is huge—if information prescriptions can help the member select the right path for them within the grey zones of medicine. But the operational challenges are substantial and the benefits not fully proven. Which health plan is ready to experiment with such an Ix application? Step up or stay turned for the answer. There is too much at stake to stick with the current system for long.

Operational Cautions
Many physicians who don’t want the health plan to come between them and their patients may find fault with this approach. Even so, by offering to exchange the information prescription plan for the even more disliked utilization review feature most physicians could be won over. Physicians who simply do not want it for their patients should be allowed to continue with utilization review—at least for a while.

The Ix applications described above are only four examples of hundreds of Ix applications that have substantial potential for improving a health plan’s bottom line. A few more are listed in the chart below and further described in the Appendix. At any health plan, the best way to select which applications to implement first is to sit down with good thinkers from medical management, marketing, and systems to discuss where improved member communication could dramatically improve the quality of care and marketing success.

Table 1. Ix Applications by Infrastructure Needs and Category of Benefit

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<thead>
<tr>
<th>Ix Application</th>
<th>Content Ready</th>
<th>Interacting Infrastructure Needed</th>
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<tbody>
<tr>
<td>Personal Notices for Preventive Services</td>
<td>Ready</td>
<td>Member Portal</td>
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<tr>
<td>Ix with Medical Testing</td>
<td>Ready</td>
<td>Member Portal</td>
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<tr>
<td>Referral-Triggered Ix</td>
<td>Ready</td>
<td>Member Portal</td>
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<tr>
<td>Info. Prescript. in Lieu of Preauthorizations</td>
<td>Ready</td>
<td>Member Portal</td>
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<tr>
<td>Medication Regimen Adherence Project</td>
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<td>Member Portal</td>
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<tr>
<td>Discharge Planning/Continuity of Care</td>
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<tr>
<td>Orthopedic Exercises Project</td>
<td>TBD</td>
<td>Member Portal</td>
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<tr>
<td>Hospital Preadmission Safety Kit</td>
<td>TBD</td>
<td>Member Portal</td>
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What infrastructure is needed to support Ix?

While the concept of information therapy works in any environment, technology is needed for a health plan to deliver it in a cost-effective manner.

The life of every information prescription begins as an “information trigger” entered into a database. Information triggers can be well-accepted codes such as ICD9 and CPT. Information therapy relies on other information technology (IT) applications within the health plan to capture and use these triggers.

At the heart of the information prescription is the content. To be worthy of prescription to a patient, the content must be both evidence-based and specifically useful in helping the patient reach better medical decisions. The needed specificity is achieved by providing metatags within each separate piece of content. The metatags allow automatic determination of the information’s relevancy for a particular person at a specific moment in care. Ideally, such content should be completely compatible with whatever content is separately available on the health plan’s Web site.

Ix content should always be written in a way that enhances the patient-physician relationship. It should lead directly to better doctor-patient communication and shared decisions.

Even the best information prescription has little or no value if the information can’t reach the patient when he or she needs it. Again, information therapy must rely on other IT infrastructure to deliver the message.

A member portal is a secure, online member interaction site that provides centralized knowledge and service for the member. The portal provides the member with access to his or her personal health information and claims data. It also provides the member with access to general health and medical information. This secure Internet feature allows the member to access information and to conduct business anytime, anywhere.

It can also be used to deliver personalized information prescriptions that are specific to the member’s condition, surgery, procedure, demographics, or behaviors. The portal empowers members to take a more active role in managing their health in partnership with their provider team.

Click, read, or call—it works the same

Although the percentage of health plan members with access to the Internet has reached mainstream levels, most health plans are still looking to other media for delivering some health information. To better serve their members, health plans choose to augment Web-based information therapy with phone- and paper-based systems.

Care counselor call center nurses conduct telephone triage, provide medical information, offer disease management help, and support shared decision making. This form of information therapy engages members who need to speak with a clinician to make the best health decision. The nurses, of course, can also send information prescriptions to the member’s portal page to reinforce the key points of their conversations.

Health plans can choose to print and mail information prescriptions for issues of high importance although the cost is much higher. Once a plan collects e-mail addresses for most of its members, the cost per message for e-delivery drops to pennies per transaction. Any member receiving an information prescription can print the information for sharing with their caregiver, spouse, or others in their network of care.

This “click-read-call” approach educates and informs members in the media that best suit each particular member. By using the same core content within Web, call center, and paper-based programs, the health plan can take comfort in knowing that their members are receiving consistent, evidence-based, and accredited health information regardless of the media used.
In conclusion
Information therapy will quickly become an essential tool for helping health plans find success within today’s market. An information benefit is key to creating the health plan design that will attract employers looking for cost containing consumer-choice models of coverage. Information therapy will also help to grow and refresh the subscriber base by attracting the young and wired population and satisfying their needs for more access to information and bigger shares in their treatment decisions. Plus, information therapy will help high-risk subscribers navigate the complex waters of chronic care with informed decision making and self-management that improves outcomes while lowering the overall cost of care. Finally, information therapy will help to rebuild a positive image for health plans in which people will trust their plans to be a full-service resource focused on helping them improve their health.

The overall picture creates a compelling business case for information therapy in health plans. Health plans that catch the wave early will have the greatest competitive advantage.

The content used in these examples comes from the Healthwise® Knowledgebase www.healthwise.org. Content for information therapy could also be provided from other sources.

About Healthwise and The Center for Information Therapy
Healthwise, Incorporated, a nonprofit organization, has been helping people make better health decisions since 1975. Healthwise established the Washington, D.C.-based Center for Information Therapy to develop the information therapy concept into the foundation for a new patient-centered health care system.

Information therapy is the prescription of customized, evidence-based medical information to patients and their caregivers at each step of the health care process. Healthwise works with the nation’s most innovative hospitals and health plans to integrate online medical content from the Healthwise® Knowledgebase into Ix™ prescriptions via EMRs and other IT applications. Visit www.healthwise.org and www.informationtherapy.org or call 1.800.706.9646.
APPENDIX
Ix Projects of High Value for Health Plans

Examples detailed in “The Business Case for Information Therapy in Health Plans”:
1. Personal notices for preventive services (see pages 2-4).
2. Information prescriptions for every medical test (see pages 4-5).
3. Information prescriptions at referral points (see pages 5-7).
4. Information prescriptions in lieu of pre-authorizations (see pages 7-10).

Additional examples:

5. Ix for medication regimen adherence
For selected conditions in which medication plan adherence is a problem, members would receive information prescriptions to encourage improved medication management. These information prescriptions would:
   - Be drug code-triggered (or triggered by name search).
   - Include a post-drug or a pre-reorder moment in care.
   - Include a personalized and customizable message with links to a drug topic and other related topics.
   - Include reminder tips to improve adherence. For example: antibiotics and heart medications.

6. Discharge planning/care and caring continuity
The goals of the application include reducing readmissions through improved self-management and adherence and improving CAHPS scores that are generally low for satisfaction with the transition process.
   - Triggers would involve ICD9 and CPT codes associated with an inpatient admission.
   - The discharge plan would be altered to accommodate the information therapy approach.
   - Following discharge, the patient and family/caregivers would receive daily messages relevant to the recovery process and the self-management activities that support recovery. These arrive during more “teachable moments” when the patient is home rather than at the hectic time of discharge.
   - Interactive daily assessments would be included to help validate that the patient is on track for recovery.

Integration with a call center nurse would be activated on a regular schedule as well as when the assessments indicate developing problems.

7. Orthopedic exercises product
The success of many forms of orthopedic surgeries is heavily influenced by how well the patient is able to learn and regularly perform the prescribed recovery and restrengthening exercises. Each such patient would receive regular information prescriptions, complete with decision guides and reminders, for the next scheduled recovery services. These information prescriptions would:
   - Be triggered by ICD9 and CPT codes in inpatient and emergency department discharge records.
   - Address the particular moment in care—rehab following a specific orthopedic procedure.
   - Include a series of messages with links to rehab exercises and related self-management guidelines.

8. Hospital preadmission safety kit product
Patients often enter the hospital unprepared for either the hospital stay or their eventual return home. By gaining a little knowledge and preparation, a patient and his or her family can help avoid medical errors in the hospital and be ready to help with self-management duties both before and following discharge. These information prescriptions would:
   - Be triggered by ICD9, planned admission, and planned CPT codes.
   - Address the particular moment in care—in advance of hospitalization for a specific procedure.
   - Include a set of messages sent to the patient and (sometimes) family providing a practical safety kit for the patient and family to use to maximize the chances for an error-free hospital stay.
   - Highlight any secondary conditions that may not be central to the admitting diagnosis. For example: for a diabetic patient admitted for a hip replacement surgery, the patient and family would be able to remind caregivers about the underlying diabetic condition so that they could appropriately adjust the care provided.
• Enhance understanding of, preparation for, and recovery from conditions that are commonly experienced following a major medical procedure. If depression is a common concern, for example, information prescriptions sent to the patient well before admission may be helpful in preventing or minimizing an episode of depression.

Other Ideas: Information therapy applications can also be designed for very specific clinical areas in which a problem or opportunity has been noted. For any issue in which balls are frequently dropped or treatment and compliance differ from the recommendations there is likely a clear opportunity for a creative information therapy solution.