

FUNDAMENTALS OF WELLNESS & PREVENTION

A CALL TO ACTION FOR
IMPROVING HEALTH LITERACY
AROUND BLOOD TESTS

Ortho Clinical Diagnostics

PART OF THE *Johnson & Johnson* FAMILY OF COMPANIES



NATIONAL ASSOCIATION OF
CHRONIC DISEASE DIRECTORS
Promoting Health. Preventing Disease.



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Healthcare in America is undergoing a paradigm shift. Focus is shifting from reactive care to a model centered on prevention and early diagnosis of disease. This change is prompted in part by an increase in chronic conditions such as heart disease, cancer and diabetes, which absorb as much as 75 cents of every healthcare dollar we spend.¹

This new healthcare paradigm is transforming our approach to healthcare, placing emphasis on:

- Keeping people healthy instead of just treating them when they get sick;
- Preventing or delaying the onset of chronic diseases; and
- Actively managing chronic conditions through a partnership between patients and healthcare professionals (HCPs).

There is increasing consensus among HCPs that success in changing how we deliver care requires that we empower people to take charge of their health by giving them access to tools and information that can enable them to navigate complex concepts and systems.² Integral to this empowerment will be a high level of consumer health literacy, defined as “the degree to which individuals have the capacity to obtain, process and understand basic information and services needed to make appropriate health decisions.”³

We firmly believe that “appropriate use” – meaning use of the right diagnostic blood test at the right time given a person’s health-risk profile – is a core component of supporting this patient-centric system. Already, blood tests influence as much as 60 percent to 70 percent of healthcare decision-making.⁴ Yet a recent survey we conducted makes clear that consumers have limited awareness and literacy around blood tests and the important information they offer.⁵

To explore strategies that address these limits, Ortho-Clinical Diagnostics, Inc., part of the Johnson & Johnson Family of companies, joined forces with the National Association of Chronic Disease Directors, a national leader in the efforts to reduce chronic diseases. Together, we fielded a national consumer survey on blood test health literacy, reviewed existing research and convened the *Fundamentals to Wellness* thought leaders summit in Washington, D.C. to examine and discuss the relationship between blood test health literacy and optimal wellness, prevention and disease management in the healthcare system.

What we discovered, and what this report expands upon, is that while there are many opportunities to foster progress, we must address the considerable barriers that stand in the way of a more consumer-focused, -educated and -empowered healthcare system. These barriers include: limited recall and understanding of blood test numbers; lack of easy access to blood tests results; and deficiencies in clear communication between HCPs and healthcare consumers.

According to the results of our national survey, there are signs that consumers welcome the opportunity to manage their personal health and desire deeper, more meaningful conversations with their healthcare providers about test results. The findings also highlight opportunities to improve health literacy around blood test results, specifically to educate consumers on basic personal medical information and provide means for them to better understand their lab test results (e.g., how to read a lab report and how to use lab tests to make decisions that result in improved wellness and better chronic disease management.)⁶

We further explored these themes at the *Fundamentals to Wellness* summit with representatives from 14 organizations, including consumer advocacy organizations, HCP groups, policymakers, insurers, research institutions, public health organizations and clinical laboratory organizations. The goal of the event was to foster dynamic conversations about the opportunities and barriers that exist to advancing health literacy around blood tests and to identify paths to progress.

During discussions thought leaders were clear about two major points. First, the results of appropriate blood tests – those based on an individual’s health-risk profile – can and should be used in a national effort to raise

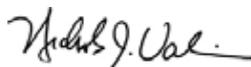
the level of health literacy among American healthcare consumers. Second, deriving the optimal utility in terms of wellness and improved health from blood test results will require a cross-functional, multi-faceted effort that looks across the healthcare continuum.

An integrated approach will allow all those in the healthcare community, including payers and employers who provide health coverage to workers, to develop and prioritize strategies that will have the most impact on the consumers we are trying to reach. To be successful, these strategies will need to take into account the best approaches to encouraging stakeholders, optimal methods for communicating with consumers and methods to promote best practices, as well as the best means to track results.

We are encouraged by the participation of key organizations in the summit, and by the groups’ interest in working together, to chart a path forward in addressing these issues.

One thing is certain: blood tests have the potential to be a powerful tool in redefining the “care” in healthcare. But if we are to be successful in improving the health literacy of Americans and make the transition from a treatment-focused to prevention- and wellness-focused healthcare system, action is required. And that action must begin now, focusing on improvements in blood test literacy.

This *Fundamentals to Wellness & Prevention* report is an important first step. We encourage you to read through this report, share it with others and explore ways to engage with the ideas. While it will take the time and talents of many of us to make genuine progress, the ultimate outcomes are worth all of our efforts: better health, better care, at lower cost.



Nick Valeriani,
Company Group Chairman, Ortho-Clinical Diagnostics, Inc.



John Robitscher,
CEO National Association of Chronic Disease Directors

THE ISSUE

Leading healthcare professionals (HCPs) and advocates agree that diagnostic blood test results can promote a more efficient and effective healthcare system by playing a major role in monitoring wellness, promoting disease prevention and managing chronic diseases.

However, they also agree that a leading impediment to progress is a lack of health literacy on the part of patients and healthcare consumers. It is estimated that inadequate health literacy among all Americans costs the healthcare system between \$106 billion to \$236 billion, annually.⁷

THE BARRIERS

A number of government and private sector reports and studies – including the U.S. Health and Human Services' *National Action Plan to Improve Health Literacy*; Center for Advancing Health's *Snapshot of People's Engagement in Their Health Care*; a recent national consumer survey, as well as discussions from the *Fundamentals to Wellness* summit – suggest three primary barriers preventing consumers from maximizing the use of blood tests to help maintain and/or improve their health:

Lack of awareness and clear information: Today's health information is presented in a way that is not usable by most Americans, and nearly nine out of 10 adults have difficulty using the everyday health information that is routinely available in our healthcare facilities, retail outlets, media and communities.⁸ Further, two-thirds of Americans do not actively and consistently perform many of the actions directly linked to the healthcare information available to them.⁹ With respect to blood tests in particular, there is a low level of consumer awareness of the value of blood tests, what the results mean and how to use them in wellness efforts or the prevention and management of disease.¹⁰

Obstacles to access (access to tests and their results): Even the best health interventions are not valuable if they are not accessible. Blood tests currently represent a low priority on the federal and state agenda, and are undervalued under health care reform. Even for those who do have access to optimal blood testing, numerous barriers exist to obtaining and interpreting results in a way that is consistent with prevention paradigms. For example, in many instances, federal and state laws restrict sharing of testing results across medical record systems – and even who can report test results to consumers – thus delaying easy access to findings and understanding of how specific test results are trending over time.¹¹

Communication gaps between HCPs and consumers: Today's HCPs are fortunate to have a wealth of information and resources available to help patients prevent and treat disease. However, when and how to educate patients about blood test results has not been a priority in training, and time constraints during patient visits often means that communication is further limited.¹²

A CALL TO ACTION

Increasing rates of chronic disease and the corresponding burden on the healthcare system have led to a call for a patient-centered approach to healthcare. The time is now for the healthcare community, which includes providers, insurers, advocates, employers and consumers, to work together to increase the public's understanding of and access to blood tests, and to foster a greater ability by consumers to act on the information provided by these results.

To achieve this goal, the healthcare community must:

- Increase consumer awareness of the importance of blood tests as an integral part of a person's health narrative – an individual's personal health story that comprises all relevant healthcare information, including family history and lifestyle. This narrative underpins a person's motivation to change behavior to improve health status.
- Ensure access to blood tests and test results.
- Encourage consumers to know and understand their test result "numbers."
- Help consumers translate their test results into action.

THE CASE FOR INCREASING BLOOD TEST HEALTH LITERACY

Diagnostics, including routine blood tests, currently make up less than five percent of hospital costs and less than two percent of all Medicare costs, and can influence as much as 60 percent to 70 percent¹³ of healthcare decision-making.¹³ These tests are a valuable cornerstone in comprehensive patient care, playing a critical role in determining how we can keep people well or improve their conditions if they are sick.

When viewed as tools to prevent or manage chronic disease – one of the biggest burdens to today's healthcare system – the value of diagnostic tests becomes even more pronounced. Nearly half of all Americans today are living with a chronic disease, such as diabetes, cardiovascular disease or cancer, or a risk factor for chronic disease, such as high cholesterol or high blood pressure, which often can be detected and managed through appropriate use of blood tests.¹⁴ Identifying patients "at risk" before they reach the more complex, intensive and expensive stage of "complications" ultimately results not only in a more efficient system from a cost perspective, but also in improved health outcomes.

Simply put, blood tests can:

- Provide a cost-effective means of early detection, identification and treatment of illnesses.
- Improve the way healthcare services are delivered.
- Significantly improve the quality of patient care and health outcomes.
- Empower consumers with information to motivate positive health behaviors.
- Enable providers to make better-informed decisions for more accurate and efficient diagnoses and less expensive treatment.

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...THERE IS A STRONG
CASE TO BE MADE THAT
BLOOD TEST RESULTS
ARE INSTRUMENTAL
COMPONENTS
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AND MANAGING
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INCLUDING COSTLY,
HIGH-MAINTENANCE
CONDITIONS SUCH
AS DIABETES AND
HEART DISEASE.

It also is estimated that the lack of health literacy among all Americans costs the healthcare system between \$106 billion to \$236 billion annually.¹⁵ This lack of consumer health literacy around blood tests, threatens the nation's ability to realize important wellness goals, health management benefits and cost savings within the healthcare system.

Currently, there is limited research related to consumer understanding of blood tests and how to make best use of blood test results.

On January 13, 2011, the National Association of Chronic Disease Directors and Ortho-Clinical Diagnostics, Inc. convened national thought and advocacy leaders in Washington, D.C. to a summit titled *Fundamentals to Wellness*. The summit hosted leaders from consumer advocacy, healthcare professional groups, policymakers, insurers, research institutions, public health and clinical laboratory groups. This program included presentations (including a keynote featuring insights from the U.S. Department of Health and Human Services (DHHS) report delivered by Rear Admiral Penelope Slade-Sawyer, P.T., M.S.W., (Deputy Assistant Secretary, Health, Disease Prevention and Health Promotion and director, Office of Disease Prevention and Health Promotion), interactive sessions and small group discussions designed to identify the barriers and opportunities for increasing blood test literacy. At the conclusion of the summit, participants agreed there is a strong case to be made that blood test results are instrumental components of monitoring wellness, promoting disease prevention and managing chronic diseases, including costly, high-maintenance conditions such as diabetes and heart disease.

However, participants also agreed that an overwhelming number of Americans do not know how to obtain, understand and use their blood test results to make meaningful changes in their lives – changes that could enable consumers to more effectively safeguard their wellness and/or manage a chronic disease. This lack of knowledge holds serious implications for individuals who may wish to manage their personal health, and could have a direct adverse impact on healthcare costs for all Americans.

The private sector also recognizes the important role diagnostic blood tests play in prevention and wellness. Kaiser Permanente, for example, sees consistently high consumer traffic to the section of its website that delivers blood test results online.¹⁶ Results of our consumer survey reveal that consumers want more information about blood tests and how they can be used to promote better health.¹⁷

Additionally, medical practice management expert Dr. Christine A. Sinsky, M.D. has advocated for completing blood tests prior to appointments as a path to more efficient practice management, the goal of which she states as “a well-organized office system that fosters sound medical decision making, minimized error and creates an atmosphere that patients, staff and physicians can enjoy.” Eighty-five percent of the patients seen in Sinsky’s practice complete tests prior to attending an appointment, which she claims “enhances our chronic disease management and preventive care because test results are available for interpretation and care planning at the time of the visit.” Ultimately, she says, “the goal is for the physician to review the data [from blood and other lab tests] only once, in context and in person, so that the patient and physician can together forge a treatment plan.”¹⁸

That said, we believe the survey findings (outlined on the following pages), summit outcomes and this report serve as catalysts for more in-depth research and a continuing national discussion on the roles that healthcare providers, insurers, advocates, employers and consumers can play to improve Americans’ understanding of the

value of blood tests and how to use them for optimal prevention, wellness and disease management. In turn, improved consumer health literacy will support a more effective and efficient healthcare system, better health outcomes at lower cost and a healthier population.

Headway is already being made on this front, including four major initiatives from the Federal government. First, the 2010 publication of the *National Action Plan for Improving Health Literacy* highlights a focus on promoting changes in the healthcare system that improve health information, communication, informed decision-making and access to health services.¹⁹ Second, the passage of the *Plain Writing Act* in October 2010 further reinforces the importance of making health information – like blood test results – accessible to the average consumer, and contains important health literacy provisions.²⁰ Third, mandates in the *Affordable Care Act* demonstrate that the government understands that educated and informed consumers have an important role to play, if current health reforms are to succeed. Finally, the *Healthy People 2020* initiative includes an objective for improving health literacy.²¹

Despite the widely recognized importance of consumer health literacy around blood tests, numerous systemic, policy and other barriers exist toward advancing the goal

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...IMPROVED CONSUMER HEALTH LITERACY WILL SUPPORT A MORE EFFECTIVE AND EFFICIENT HEALTHCARE SYSTEM, BETTER HEALTH OUTCOMES AT LOWER COST AND A HEALTHIER POPULATION.

LIMITED HEALTH
LITERACY AFFECTS
PEOPLE OF ALL AGES,
RACES, INCOMES AND
EDUCATION LEVELS, BUT
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SOCIOECONOMIC AND
MINORITY GROUPS.

THE BARRIERS

There are a variety of factors that affect consumers' understanding of "the numbers" in their blood test results, and their subsequent ability to use those numbers to improve their wellness and better manage their health. Our review of the literature and distillation of discussions at the summit suggest these barriers can be grouped into three broad areas.

1) LACK OF AWARENESS & CLEAR INFORMATION

According to the *National Action Plan to Improve Health Literacy*, a 2010 report published by DHHS,²² nearly nine out of 10 adults have difficulty using the every day health information that is routinely available in our healthcare facilities, retail outlets, media and communities.

This lack of "health literacy" pertains to the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions. This includes numeracy, which is the degree to which individuals have the capacity to access, process, interpret, communicate and act on numerical, quantitative, graphical, biostatistical and probabilistic health information needed to make effective health decisions.²³

The DHHS *National Action Plan* adds that today's health information is presented in a way that is not usable by most Americans and that without clear information and an understanding of prevention and self-management of conditions, people are more likely to:

- Skip necessary medical tests;
- End up in the emergency room more often; and
- Have a hard time managing chronic diseases, such as diabetes or high blood pressure.

Limited health literacy affects people of all ages, races, incomes and education levels, but the impact of limited health literacy disproportionately affects lower socioeconomic and minority groups.

The Center for Advancing Health report similarly found that two-thirds of Americans do not actively and consistently

perform many of the actions directly linked to benefiting from the healthcare information available to them.²⁴

Focusing on blood tests in particular, summit attendees agreed that there is low consumer awareness of the value of blood tests in managing one's personal health, likely because there is lack of consumer- and HCP-directed resources addressing the topic of blood test literacy.

2) OBSTACLES TO ACCESS (TESTS & TEST RESULTS)

The fact that blood tests are generally considered a “routine” part of annual physical exams in the United States has created an interesting paradox in which their value may be underestimated by both consumers and the healthcare delivery system. In the public sector, blood tests are currently a low priority on federal and state agendas, even though such tests could advance the goals of the health reform law. For example, the free preventive care visit offered under Medicare covers blood glucose and lipid screening, but omits important and age-appropriate markers such as complete blood count to look for anemia and BUN/creatinine to look for early signs of kidney disease. Further, there are policies in some states that limit the types of providers authorized to report and discuss blood tests with consumers.

In the private sector, insurance coverage for blood tests is not standardized, meaning that some consumers may be denied testing or may be charged significant co-pays if blood work is ordered. Certain plans also require use of a specific laboratory for testing, burdening consumers with the need to make arrangements for a separate visit.

Access to the test results is also a formidable barrier, as in many cases results aren't shared readily with consumers on a consistent basis. Further, the reporting of results is not standardized, which means that a lab report from one source will likely look different from another, requiring consumers to analyze reports each time tests are conducted and preventing easy interpretation of the information presented. Lack of standardization also means that labs may use various methods resulting in inconsistent results from lab to lab, and potentially from test to test.

3) COMMUNICATION GAPS BETWEEN HCPS AND CONSUMERS

A consumer's level of health literacy impacts the ability to understand and carry out HCP instructions, and therefore has the potential to negatively impact health outcomes. The DHHS report calls for improved HCP-consumer conversations, including the need to apply principles of health literacy in communications tools used with consumers.²⁵

Summit participants echoed this sentiment, stating that lack of clear, constructive communication between HCPs and consumers is a barrier to consumer understanding of health information, including blood tests. Yet, efforts to improve communication around blood tests are challenging on multiple fronts, not the least of which is the fact that healthcare professionals are facing increasing time constraints in their practice of medicine.

An omnibus survey of more than 1,000 healthcare consumers in the U.S. (sponsored by Ortho-Clinical Diagnostics, Inc. and the National Association of Chronic Disease Directors), conducted in October 2010, found that there is a need to educate healthcare consumers about the value of personal medical information related to blood-test results.²⁶

Specifically, the findings suggest opportunities to improve awareness and knowledge in areas such as:

- How to interpret blood test results;
- How blood test results can be associated with risk factors for disease;
- What blood tests individuals should be getting based on age, gender and family history; and
- How test results can help maintain wellness and/or prevent or manage chronic disease.

SURVEY

These survey findings also suggest consumers' desire to have blood testing completed prior to a visit with an HCP, so the results can be reviewed and discussed during their appointments and how the test results can be used by consumers to monitor their health. This finding indicates the need for practice-based system designs that foster meaningful patient/provider discussions around blood test results.

The survey also found that just over one-half (52 percent) of those who had a recent blood test knew their cholesterol level compared to 8 percent of those who were not tested, and 35 percent of a recently tested group knew their glucose level vs. the 5 percent not

tested.²⁷ Although the percentage of recently tested consumers who knew their test values was relatively low, these figures suggest that routine testing and resources that encourage consumers to track their numbers over time can improve knowledge of important blood tests.

After hearing their test results, 35 percent of those surveyed said they took some action or changed their behavior based on those results.²⁸ Considering that many test results will not require behavior change, this finding suggests that consumers are ready and willing to make behavior changes based on these scores should they be needed.

OF THOSE WHO CHANGED THEIR BEHAVIOR, THE MOST COMMON CHANGES WERE:



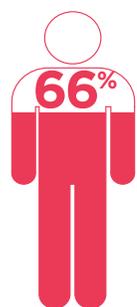
CHANGES TO EATING HABITS



MAINTAINING REGULAR HEALTH CARE PROVIDER VISITS



PAYING MORE ATTENTION TO RESULTS



STARTING OR CONTINUING TAKING MEDICATION



STARTING TO EXERCISE

The thought leaders convened at the *Fundamentals to Wellness* summit also observed that, over time, changes in blood-test scores within acceptable ranges can be an indicator of needed behavioral and/or biomedical interventions to prevent the development of a chronic disease. So that trends in blood-test results can be monitored, easy provider and consumer access to historical health records may require practice-system changes to help assure that this information is used most effectively to prevent the development of chronic diseases and to better manage the conditions should they develop.

OTHER KEY FINDINGS OF THE CONSUMER SURVEY INCLUDE:

- Of those who got a blood test, respondents are most likely to know their blood type (72%), followed by their blood pressure number (70%). **Yet, less than half say they know their cholesterol level, blood glucose level or BMI (52 percent, 35 percent and 30 percent, respectively).**
- Nine in 10 Americans say it would be better if blood test results could be discussed during a doctor's visit (88 percent). **Yet, fewer than four in 10 report discussing their results in person, primarily because: (1) results were either mailed or emailed to the patient; (2) the provider told the patient to assume everything was okay if the patient wasn't notified of their results (i.e., test results were not available at visit); or (3) the patient never received the results.**
- Almost four in five survey respondents (79 percent) had blood work done in the past two years, primarily as part of a regular physical exam (76 percent). **This finding suggests that physical examinations offer an important time for educating consumers about blood tests and their value to personal health and disease management.**²⁹

A CALL TO ACTION

Rates of chronic disease in America continue to rise, placing a significant burden on the healthcare system.

Our nation's fiscal and other resource limitations have challenged policymakers, HCPs and consumers to think about new ways to do more with less. While there are several paths forward to improve health literacy around blood tests, consensus is growing among a variety of sectors that suggest a self-driven approach to wellness and prevention is required.

This principle was a key component of the *Affordable Care Act of 2010 (ACA)*,³⁰ which called for a more prevention-oriented, consumer-centered care approach and a corresponding higher level of consumer engagement in their health management.

The convergence of these issues presents a significant opportunity for the healthcare community: to implement a concerted and sustained effort to bolster health literacy around the fundamentals to any wellness effort – blood tests.

The recommendations in this report provide a roadmap to achieving the promise of better health and better care at lower cost. It's not a simple issue to tackle, but it is critical to realizing the principles of health reform.

ADVANCING
HEALTH LITERACY
AROUND BLOOD
TESTS IS A
FUNDAMENTAL
COMPONENT TO
TRANSFORMING
OUR NATION'S
HEALTHCARE
SYSTEM...

RECOMMENDATIONS

Advancing health literacy around blood tests is a fundamental component to transforming our nation's healthcare system from one focused on a reactive treatment model of care to a model focused on wellness and prevention. Based on discussions among national thought leaders and current research, consensus is building around four areas that are critical to the health literacy effort: awareness, access, knowledge and action.

AWARENESS

- Improved health literacy can become the foundation of a national effort that promotes improved use of blood tests as an integral component of health and wellness. This will require efforts to increase awareness of the importance of blood tests as part of a person's individual health narrative, which will necessitate a model that better informs consumers about how they should use blood tests for health maintenance and management of chronic disease. It also may require an advocacy effort to make comprehensive blood tests part of the ACA "healthcare package."
- Further research and discussions need to take place among all stakeholders, including consumers, healthcare providers, health plans, hospitals, government agencies and consumer advocates to identify evidence-based strategies that will effectively lower barriers to improving health literacy around blood tests.
- Specifically, awareness improvements will require consumer education around: clarifying how blood test results can be used to help prevent disease; how results can indicate whether medications and treatments are effective in managing disease; how to advocate for appropriate tests based on an individual's health risk profile; and what to do with test result reports. Equally important is a paradigm shift so that consumers begin to see that they can collaborate with their healthcare provider to take action and positively improve their overall wellness. Inherent in creating and applying personal context is ensuring that resources are culturally relevant and linguistically appropriate.

KNOWLEDGE

- Creating informed patients who appreciate the importance of knowing and understanding the trends in their blood test results will require involvement and alignment from employers, as well as other healthcare purchasers. These groups must work together to motivate consumers to get tested and to provide personal context for the results.
- Efforts to improve the use of blood test results should inform and encourage employers to lead by example when purchasing health insurance – assuring that appropriate tests are available to their employees – and should engage them in programs to educate their employees.

ACCESS

- Consumers need improved access to their blood test results, resources to help interpret these results, information about how these results are associated with their risks for chronic diseases and access to effective strategies for health behavior changes.
- Comprehensive and integrated efforts to improve reimbursement are also needed to advance access.
- Embracing new technologies that provide rapid, cost-effective test results may also be a key to progress.

ACTION

- Making test results more standardized, accessible and understandable will require development of policies and programs that influence and incentivize both consumer and healthcare provider behaviors.
- Undertaking pilot programming that tests various approaches to progress and identifies activities that result in maximum impact on literacy around blood tests.

MAKING TEST RESULTS MORE STANDARDIZED, ACCESSIBLE AND UNDERSTANDABLE WILL REQUIRE DEVELOPMENT OF POLICIES AND PROGRAMS THAT INFLUENCE AND INCENTIVIZE BOTH CONSUMER AND HEALTHCARE PROVIDER BEHAVIORS.

The following strategic recommendations, which represent a distillation of summit presentations and discussions, provide more detail about how these four areas could become actionable tactics to improve health literacy around blood tests. In doing so, they suggest ways to strengthen education, research and training practices and activities on this topic.

STRATEGY #1: INCREASE AWARENESS OF THE IMPORTANCE OF BLOOD TESTS AS AN INTEGRAL PART OF A PERSON'S HEALTH PROFILE

- 1) Identify information resources that are currently available to consumers and determine how consumers can easily access these resources – to include government websites, insurance and provider information, advocacy group resources, etc.
 - 2) Conduct a content analysis to determine the effectiveness of existing information resources (strengths and weaknesses with regard to issues such as literacy level and cultural appropriateness) and make recommendations as to how this information can be improved for greater understanding of blood test results.
 - 3) Create a population-based public education awareness campaign to help consumers understand the importance of blood tests—and get them to act!
- Engage people in their health and find the common ground among patients, providers and payers, and how they communicate about blood tests using multiple media channels appropriate to various populations – particularly targeting lower socioeconomic and minority groups.
 - Create actionable educational resources on the value of blood tests with an emphasis on reaching populations with low health literacy.
 - Conduct a research-based demonstration program to show how a health literacy campaign focused on blood testing can improve consumer use of these tests to advance wellness and prevention, and disease management.
- 4) Stress to employers the potential return on investment (ROI) if they engage and incentivize their employees to become better stewards of their health, including appropriate use of blood test results.

STRATEGY #2: ENSURE ACCESS TO BLOOD TESTS AND TEST RESULTS

- 1) Ensure awareness of and access to the use of blood tests to track health and wellness.
- 2) Make blood tests a part of our healthcare discourse and agenda for chronic disease prevention and wellness.
 - Incorporate blood tests into wellness routines, both in private healthcare practices and public health-based service delivery.
 - Advocate for broad-based access to blood tests and results, as well as standardized test results and report formats.
 - Develop and use incentives to reinforce positive provider and consumer behaviors.
 - Engage public health professionals in efforts to encourage policy makers to enact policies that enhance consumer and provider use of blood tests to track wellness and prevent and control chronic diseases.
- 3) Work with insurers to adopt progressive policies that assure access to age- and health risk profile-appropriate blood tests and to educate their health plan members about the value of blood tests.
- 4) Encourage use of technology (e.g., electronic health records, smart phone apps) and development of consumer tools (e.g., a personalized “P-score” [prevention] and/or other virtual health education tools [graphics]). These efforts could help improve consumer and provider access to blood test results, their tracking of blood test progress and understanding of effective behavioral strategies to maintain wellness and prevent or control chronic disease.

STRATEGIC RECOMMENDATIONS

STRATEGY #3: ENCOURAGE CONSUMERS TO KNOW AND UNDERSTAND THEIR TEST RESULT “NUMBERS”

- 1) Conduct a consumer survey and/or focus groups to gather information on a variety of demographics, while probing deeper barriers to determine what would motivate different populations to become more engaged in their healthcare.
- 2) Conduct a survey of healthcare professionals to compare and contrast differences with the consumer survey, and to identify structural or systemic practice patterns that are barriers to effective communications regarding the importance and meaning of blood test results.
- 3) Increase knowledge on the purpose of blood tests and their results beyond knowing whether results are “normal.” For example, what cholesterol level should one have based on risk profile and age, and what could a trend over time mean?
- 4) Identify and broaden consumer utilization of existing information portals such as LabTestsOnline.org, that empower consumers to play a more active role in better understanding their blood test results as well as the role of blood tests in early detection of chronic diseases and improved quality of life.
- 5) Encourage the development and adoption of electronic medical records, online data systems and other health IT initiatives that can help ensure that healthcare professionals and consumers have timely access to individual blood test results and result trends over time.
- 6) Use government efforts such as the *Plain Writing Act* (Oct. 2010),³¹ as well as government-created, consumer-focused websites such as www.health.gov, to guide consumer education efforts.
- 7) Develop training programs for healthcare providers to help them improve their communications with patients around blood tests.
 - Create resources for healthcare providers who leverage proven health literacy methods, such as “teach back,” in which a provider checks that a consumer understands and knows how to carry out his or her particular self-care health plan.
 - Tailor educational messages using standardized language so that each type of healthcare provider that interacts with patients uses the same language for each respective blood test.
 - Develop and provide educational materials and strategies for HCPs so they can help consumers understand concepts such as how to interpret blood test results, how to associate results with risk factors for disease, what tests are appropriate based on personal health factors, and how test results can guide behaviors that maintain wellness and/or prevent or manage chronic disease.
 - Provide comprehensive training to the full HCP team – including physicians, nurses, physician assistants, nurse practitioners and others – on how to interpret and share test results in a way that is understandable by patients. This is a critical issue because while a physician may be ordering tests, it is frequently another member of the team who contacts a patient to report results.

STRATEGY #4: HELP CONSUMERS TRANSLATE THEIR RESULTS “NUMBERS” INTO ACTION

- 1) Ensure that healthcare providers offer consultations and follow-up appointments to track consumer health, and engage consumers to track their blood test results on an ongoing basis and over time.
- 2) Create relevant and appropriate tools that can be tailored to consumer risk factors, culture and education level, so blood-test results can be translated into age and culturally-appropriate, condition-specific actions.
- 3) Consider pilot-testing and evaluating various approaches to blood test delivery, namely, where (e.g., lab, doctors’ office or someplace else), when (e.g., before, during or after a doctor’s visit) and how (e.g., what educational tools would work best):
 - Test the resources mentioned above with proven health-literate approaches;
 - Incentivize providers (e.g., reimbursement for time spent informing patients about test results).
- 4) Create greater awareness, cooperation and collaboration among advocacy groups to help promote such efforts.

CONCLUSION

If our nation is serious about achieving better health and better care at lower cost, it is essential to leverage the use of screening and diagnostic blood tests so that consumers can better manage and maintain their own health. These tests – and healthcare consumers’ ability to obtain and understand the results – are fundamental to wellness, prevention and management of disease. Breaking down barriers to health literacy and maximizing the use of blood test results can help create a more efficient, effective healthcare system that ultimately results in better care and better outcomes for American healthcare consumers.

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- American Association for Clinical Chemistry
- American Academy of Physician Assistants
- American Clinical Laboratory Association
- American College of Preventive Medicine
- American Hospital Association
- American Medical Association Foundation
- American Public Health Association
- Association of Public Health Laboratories
- Association of State and Territorial Health Officials
- Center for Advancing Health
- National Consumers League
- National Urban League
- Partnership for Prevention

The organizations listed do not necessarily support or endorse the recommendations in this plan.

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