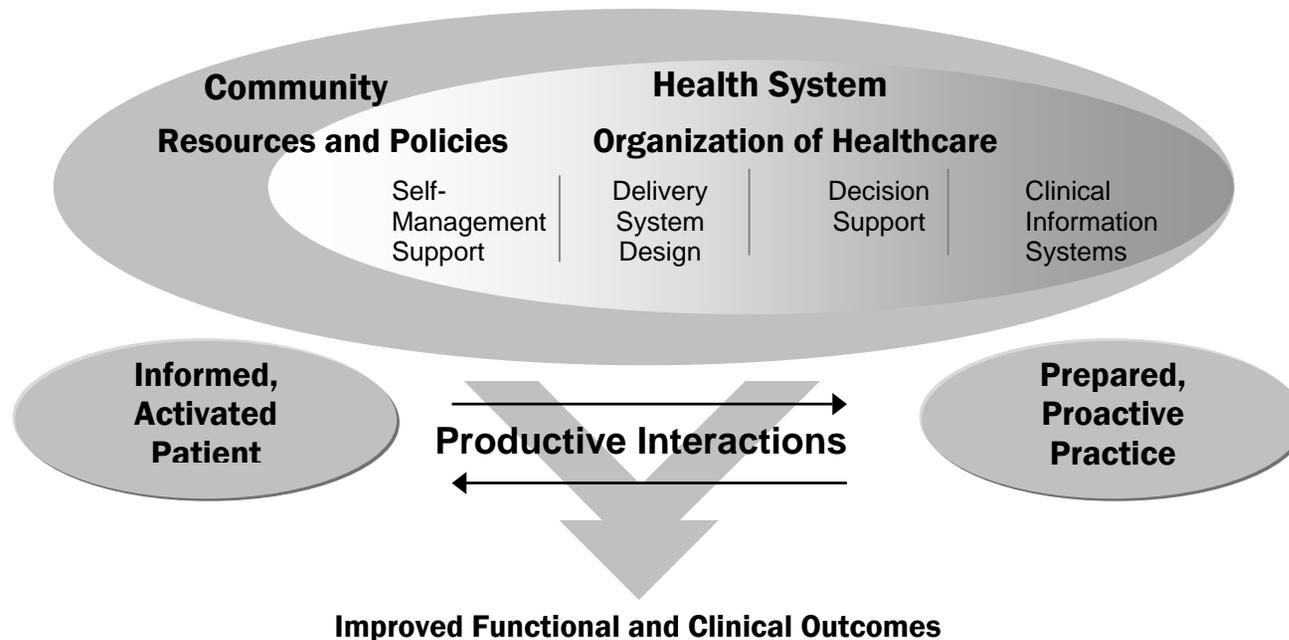


Care Model

The **Care Model**: A unique and proven approach for implementing proactive strategies that are responsive to both patient and practitioner needs. Developed by Improving Chronic Illness Care (ICIC), a national program of the Robert Wood Johnson Foundation, the model integrates community, organizational, practitioner, and patient systems. Based on published results, the Care Model promotes “continuous healing relationships” characterized by planned sets of interactions and interventions over time to optimize quality and delivery of more efficient and effective healthcare.

(1,2)

Six Key Elements are Defined in the Model



Using the **Care Model** is a common sense and practical approach to improving care management. The following testable ideas support the implementation of each of the six components of the Care Model.

(1,2): Bodenheimer T,Wagner EH, Grumbach K. Improving Primary Care for Patients With Chronic Illness.JAMA.2002;288:1775-1779.
Bodenheimer T,Wagner EH, Grumbach K. Improving Primary Care for Patients With Chronic Illness. The Chronic Care Model, Part 2.JAMA.2002;288:1909-1914.

1

Care Model Component: Delivery System Design

Transform a reactive system to a proactive one by clarifying roles, delegating tasks, and organizing patient visits to enhance continuity of care.

Change Concepts and Strategies**	Evidence Based Interventions and Testable Ideas**
<p>(1.1) Complete a practice assessment to understand your:</p> <ul style="list-style-type: none"> ▪ Patients ▪ Practice and staff ▪ Processes ▪ Patterns 	<ol style="list-style-type: none"> a. Assess your practice to identify opportunities for improvement (use project tools and surveys including www.improveyourmedicalcare.org - Dartmouth) b. Identify your patient population and clinical needs c. Define the work necessary to meet the population needs d. Understand access and demand for services: <ul style="list-style-type: none"> • Measure capacity for all providers and staff • Measure demand for all services e. Define staff roles and responsibilities f. Map and flowchart processes g. Measure processes and develop a ‘data wall’ to display measures and ideas for change h. Involve your staff in the redesign of processes
<p>(1.2) Proactively plan care management</p>	<ol style="list-style-type: none"> a. Individualize care based on patients’ needs b. Predict, identify, and plan for needs of patients (<i>See Clinical Information System, pg. 4</i>) <ul style="list-style-type: none"> • Discuss and agree on visit agenda for each encounter • Pre-arrange telephone or e-mail follow-up at a face-to-face visit c. Use planned visits to provide support for self-management d. Use group visits to deliver care to appropriate and interested patients and optimize resources e. Utilize role of a clinical case manager f. Define care team roles and responsibilities: “the right person doing the right thing at the right time” <ul style="list-style-type: none"> • Inform patients of appropriate staff to contact for each aspect of care • Provide patients with relevant phone/fax/e-mail information
<p>(1.3) Improve efficiency through use of technology (<i>See Clinical Information System and Decision Support; pgs. 4 & 5</i>)</p>	<ol style="list-style-type: none"> a. Select and implement an EHR system b. Use EHR systems to proactively review care, plan visits, contact patients for follow-up, and utilize disease management reminders c. Use continuous flow of clinical data to inform every member of the team

Change Concepts and Strategies**	Evidence Based Interventions and Testable Ideas**
<p>(1.4) Improve efficiency through eliminating waste and improving workflow</p>	<ul style="list-style-type: none"> a. Reduce appointment types by standardizing types and lengths of appointments b. Standardize exam room(s) set-up and equipment c. Synchronize patient, information and provider to appointment time <ul style="list-style-type: none"> • Schedule staff to arrive in sufficient time to prepare for first patient • Use huddle to ensure charts and staff are ready for patient visits d. Move steps in the process closer together or to the optimum point in a process <ul style="list-style-type: none"> • Locate all members of the care team together • Avoid batching work (e.g., enter patient data into computer at time of encounter) e. Find and remove bottlenecks <ul style="list-style-type: none"> • Perform analyses and practice walk-through to identify constraints, causes and solutions • Move work away from the constraint f. Do tasks in parallel (e.g., have NP interview parents while MA does vitals on child)
<p>Enhance Access</p> <p>(1.5) Shape the demand for office appointments and staff interactions</p>	<ul style="list-style-type: none"> a. Reduce the backlog: <ul style="list-style-type: none"> • Measure extent of backlog and make plan for reducing • Distinguish between planned care and same-day needs of patients b. Manage demand: <ul style="list-style-type: none"> • Increase non-visit interaction (e.g., Use email or phone to report normal labs, test results, and give advice) • Maintain continuity of care with primary provider • Maximize activity at the visit to reduce future demand • Offer alternatives to 1-to-1 visits (e.g., group visit) • Determine appropriate provider for each encounter (office staff, primary care provider, specialist)
<p>(1.6) Match capacity to demand</p>	<ul style="list-style-type: none"> a. Manage demand variation in pro-active fashion <ul style="list-style-type: none"> • Add more appointment times when high demand can be predicted (e.g., seasonal increases) • Develop flexible, multi-skilled staff b. Improve balance in day-to-day workload <ul style="list-style-type: none"> • Create a master schedule for staffing, vacation, and physician coverage • Distribute elective/scheduled appointments evenly throughout the week • Move elective/scheduled appointments to the time of day with the lowest random/walk in demand • Standardize appointment length for different kinds of visits (e.g., chronic conditions vs. routine screening) • Strive to see patients on the day they call or at their requested time and day

2

Care Model Component: Clinical Information Systems

Optimize care management and outcomes measurement by utilizing effective systems to collect, categorize and monitor patient data and provide timely provider feedback.

Change Concepts and Strategies**	Evidence Based Interventions and Testable Ideas**
(2.1) Assess your practice and plan for transition from paper to paperless office	<ul style="list-style-type: none"> a. Assess advantages and disadvantages of current paper based vs. automated methods of patient tracking, reports management and reminder systems b. Identify clinical, operational and financial criteria for selection of EHR systems c. Define system/practice requirements d. Develop processes for use of the EHRs including designating personnel to enter data, assure data integrity, and maintain the EHR systems e. Assess staff competency, computer and keyboarding skills, and provide training to achieve a baseline level of computer skills f. Identify a task-oriented team to oversee transition g. Use a buddy system to promote mentoring and staff development h. Introduce concepts of office redesign (see <i>Delivery System Design</i>; pg. 1)
(2.2) Select information systems to promote quality and efficiency in all clinical care delivery sites	<ul style="list-style-type: none"> a. Purchase an appropriate EHR product that will be user friendly and allow maximum flexibility b. Use EHR reports to contact patients with overdue services c. Use EHRs to facilitate timely sharing of information d. Access integrated database for online ordering of medications, lab, radiology, procedures, immunization, supplies, etc e. Use decision rules linked to referral system in shared EHRs f. Use clinical outcome data to provide feedback to care team
(2.3) Implement EHR systems for proactive patient-centered care (see <i>Decision Support</i> , pg. 5)	<ul style="list-style-type: none"> a. Use the EHRs to review and plan needed care for individuals and populations b. Give individual and population-based feedback to providers and staff c. Provide patient secure access to their EHR records d. Generate care-planning tools for individual patients
(2.4) Improve population management	<ul style="list-style-type: none"> a. Establish population management processes to identify patients and track core measures on the population b. Produce automated reminders to physicians and patients c. Standardize documentation and care protocols
(2.5) Use EHRs to improve patient safety	<ul style="list-style-type: none"> a. Prescribe medications electronically to decrease prescription processing and conflict errors b. Generate master problem list and medication list c. Link to lab to obtain accurate and timely lab reports

DOQ-IT: Change Package

EHRs = Electronic Health Records

**Tools and Resources will be given throughout the Collaborative.

3

Care Model Component: Decision Support

Incorporate proven guidelines, tools, and strategies into daily clinical practice to improve quality of care, communication and collaboration.

Change Concepts and Strategies **	Evidence Based Interventions and Testable Ideas**
<p>(3.1) Implement EHR systems to provide explicit decision support for evidence-based care (See <i>Clinical Information System</i>; pg 4)</p>	<ul style="list-style-type: none"> a. Embed evidence-based guidelines that include risk assessment into EHR systems b. Use EHR alerts to improve utilization of best practices c. Agree upon decision rules in EHRs for most common diagnoses d. Update decision rule templates to reflect changes in current guidelines e. Create systems to reference updated formularies and identify drug interactions f. Implement protocols and preprinted orders for preventive tests and vaccinations
<p>(3.2) Incorporate evidence-based guidelines into daily clinical practice</p>	<ul style="list-style-type: none"> a. Incorporate guidelines into flow sheets and EHR templates b. Provide pocket cards with guidelines c. Use standardized phone or e-mail follow-up protocols to identify patients needing stepped-up care d. Use standing orders to assure delivery of evidence-based interventions and prevent errors e. Develop and place template for standing orders for routine labs, diagnostic tests and immunizations on the chart for patients with chronic condition(s)
<p>(3.3) Educate patients about guidelines (See <i>Self Management Support</i>; pg. 6)</p>	<ul style="list-style-type: none"> a. Involve patients in setting care expectations: clarify patient’s role in making sure recommended tests and exams are completed according to guidelines b. Develop “patient-friendly” guideline handouts or wallet cards and distribute to patients c. Review a customized care pathway with patients as part of action planning
<p>(3.4) Integrate specialist and primary care management through improved communications</p>	<ul style="list-style-type: none"> a. Provide alternate ways to communicate between specialists and primary care (e.g., establish templates for communication via secure e-mail) b. Establish service agreements and referral guidelines
<p>(3.5) Use proven provider education methods</p>	<ul style="list-style-type: none"> a. Focus ongoing education on current guidelines and skill acquisition b. Practice patient goal-setting skills during team meetings using role-play exercises c. Use academic detailing to provide updates on clinical topics

4

Care Model Component: Self-Management Support

Develop a care team that emphasizes the patient’s active and central role in managing illness, preventing complications and motivating effective behavioral change at every patient contact.

Change Concepts and Strategies**	Evidence Based Interventions and Testable Ideas**
(4.1) Empower patients to manage their self-care by involving them in all goal setting and health decisions	<ul style="list-style-type: none"> a. Assess stage of patient readiness for change acknowledging patient/family values, beliefs, and learning style b. Consider patient’s confidence level in their ability to achieve behavioral change c. Measure the level of self-confidence using a pictorial scale where 10 is “extremely confident” and 1 is “extremely unconfident” d. Teach proven problem-solving methods and communication skills to instill sense of self control e. Develop process to create, document and follow-up on self-management goals at each visit f. Have patient education materials, self-management tools, and reminders visible/accessible in reception and exam rooms g. Teach health care navigation skills to patients/families
(4.2) Introduce and reinforce EHR capacity to facilitate education and support	<ul style="list-style-type: none"> a. Use email to communicate with patients about goals, action plans and follow-up b. Refer patients to credible on-line sources of information and support c. Track self-management goals in the EHR system d. Give patients printouts of their laboratory results with relevant explanations
(4.3) Introduce the self-management model to care team	<ul style="list-style-type: none"> a. Educate about the five components of self-management model <ul style="list-style-type: none"> • 5 A’s - Assess, Advise, Agree, Assist, Arrange (Wasson) b. Determine team roles and train providers to effectively perform the 5 As
(4.4) Educate patients about guidelines and emphasize their central role in adhering to recommended guidelines	<ul style="list-style-type: none"> a. Distribute guideline handouts or wallet cards using appropriate age and literacy level materials b. Elicit potential barriers and clarify patient understanding of the guidelines c. Reinforce shared responsibility for completion of recommended tests/exams during each encounter d. Utilize tools that facilitate teaching of self-empowerment skills e. Routinely refer patients to community-based education/support and self-management classes
(4.5) Offer group visits to educate and provide support	<ul style="list-style-type: none"> a. Implement a multi-disciplinary program for chronic care conditions b. Confirm coverage/reimbursement for group visits with appropriate payers c. Use group visits to link patients with peers, buddy systems or phone partners

5

Care Model Component: Healthcare Organizations (Physician Practice)

Develop leadership support for improvement of chronic care conditions and preventive services through visible and measurable goals in the organizational business and strategic plans, including evidence-based provider incentives.

Change Concepts and Strategies**	Evidence Based Interventions and Testable Ideas**
(5.1) Recruit effective and enthusiastic leaders/managers	<ul style="list-style-type: none"> a. Offer self-assessment tools to evaluate and enhance leadership, management and communication skills b. Identify a champion to take ownership of performance improvement projects
(5.2) Develop and maintain highly functioning work teams	<ul style="list-style-type: none"> a. Conduct regular staff meetings to promote effective communication, constructive conflict resolution and methods to provide appropriate and timely feedback b. Create a plan for regular in-services, sharing journal articles, or other interventions to maintain staff interest and morale c. Identify and correct errors/deficiencies openly and respectfully d. Recognize and reward staff role models
(5.3) Incorporate a commitment to improving systems in the organizational mission statement and business plan	<ul style="list-style-type: none"> a. Visibly support systems improvement from top down and bottom up levels of staff b. Provide regular updates to employees and medical staff c. Develop a business case for performing practice improvement d. Develop improvement plans that are consistent with the strategic and business goals e. Use provider and staff incentives to reward success
(5.4) Create an organizational culture that fosters performance improvement and cultural diversity	<ul style="list-style-type: none"> a. Make participation in performance improvement a key part of the job descriptions and evaluations b. Hire staff members who reflect the cultural diversity of the community c. Revise orientation and procedure manuals as indicated

6

Care Model Component: Community

Build partnerships with community-based organizations to provide access to key services, avoid duplication and promote evidence-based health programs.

Change Concepts and Strategies**	Evidence Based Interventions and Testable Ideas**
(6.1) Identify effective community programs and available resources	<ul style="list-style-type: none"> a. Designate a staff member in your practice to become a community resource liaison b. Make a resource guide and provide it to patients/families c. Elicit patient feedback to evaluate effectiveness of programs
(6.2) Identify barriers and address socioeconomic, cultural and linguistic opportunities to improve care management	<ul style="list-style-type: none"> a. Use an assessment tool that addresses socioeconomic and cultural factors b. Create a procedure to assess financial barriers and refer to patient assistance programs c. Prescribe generic or low-cost medication when appropriate d. Improve ability to obtain needed supplies and services (e.g., transportation, nutrition) e. Develop policies to address cultural needs related to literacy, language or customs f. Identify and link to community translation services

Change Package References

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Change Package References

Bagley, B: EMR Implementation—Designing a Strategy That is Right for the Organization. DOQ-IT Electronic Health Record and Practice Redesign Forum, San Francisco, February 2004.

Batalden PB, Nelson EC, Edwards WH, Godfrey MM, Mohr JJ: Microsystems in Health Care: Part 9. Developing Small Clinical Units to Attain Peak Performance. *The Joint Commission Journal on Quality and Safety*. Volume 29 (11):575-585.

Batalden PB, Nelson EC, Mohr JJ, Godfrey MM, Huber TP, Kosnik L, Ashling K: Microsystems in Health Care: Part 5. How Leaders are Leading. *The Joint Commission Journal on Quality and Safety*. Volume 29 (6):297-308.

Chaufournier, R. and Lewis, A. Transforming clinical practice: The business case. Institute for Health Care Improvement. 5th Annual International Summit on Redesigning the Clinical Office Practice. San Francisco, March 29-30, 2004.

Davis C. Planned care overview. Institute for Health Care Improvement. 5th Annual International Summit on Redesigning the Clinical Office Practice. San Francisco, March 29-30, 2004.

Fraser, S. Stock, flow and trigger mapping; Surfacing the office practice system. Institute for Health Care Improvement. 5th Annual International Summit on Redesigning the Clinical Office Practice. San Francisco, March 29-30, 2004.

Godfrey, MM, Nelson, E. C., Batalden, PB Idealized Design of Clinical Office Practices. Improving Clinical Microsystems and Outcomes. Assessing your practice “the Green Book”. Dartmouth College, Institute for Healthcare Improvement. 2004. Available at: www.clinicalmicrosystem.org

Godfrey MM, Nelson EC, Wasson JH, Mohr JJ, Batalden PB: Microsystems in Health Care: Part 3. Planning Patient-Centered Services. *The Joint Commission Journal on Quality and Safety*. Volume 29 (4):159-170.

Kilo, C.M. and Crane, S. C. Optimizing your practice resources to improve operational efficiency. Institute for Health Care Improvement. 5th Annual International Summit on Redesigning the Clinical Office Practice. San Francisco, March 29-30, 2004.

Kosnik LK and Espinosa JA. Microsystems in Health Care: Part 7. The Microsystem as a Platform for Merging Strategic Planning and Operations. *The Joint Commission Journal on Quality and Safety*. Volume 29 (9):452-459.

Huber TP, Godfrey MM, Nelson EC, Mohr JJ, Campbell C, Batalden PB. Microsystems in Health Care: Part 8. Developing People and Improving Worklife: What Front-Line Staff Told Us. *The Joint Commission Journal on Quality and Safety*. Volume 29 (10):512-522.

Institute of Medicine. Crossing the Quality Chasm: A New Health System for the 21st Century. Washington: National Academy Press, 2001.

Mohr JJ, Barach P, Cravero JP, Blike GT, Godfrey MM, Batalden PB, Nelson EC: Microsystems in Health Care: Part 6. Designing Patient Safety into the Microsystem. *The Joint Commission Journal on Quality and Safety*. Volume 29 (8):401-408.

Moore LG. Transforming the medical practice. Institute for Health Care Improvement. 5th Annual International Summit on Redesigning the Clinical Office Practice. San Francisco, March 29-30, 2004.

Murray, M., and Tantau, C. Same-Day Appointments: Exploding the Access Paradigm. *Family Practice Management* - September 2000

Nebeker JR, Hurdle JF, Bair BD: Future history: medical informatics in geriatrics. *J Gerontol A Biol Sci Med Sci*. 2003 Sep;58(9):M820-5.

Nelson EC, Batalden PB, Homa K, Godfrey MM, Campbell C, Headrick LA, Huber TP, Mohr JJ, Wasson JH: Microsystems in Health Care: Part 2. Creating a Rich Information Environment. *The Joint Commission Journal on Quality and Safety*. Volume 29 (1): 5-15, 2003.

Nelson EC, Batalden PB, Huber TP, Mohr, JJ, Godfrey MM, Headrick, LA, Wasson, JH: Microsystems in Health Care: Part 1. Learning from High-Performing Front-line Clinical Units. *The Joint Commission Journal on Quality Improvement*. Volume 28 (9): 472-493, 2002.

Scott, J. and McKenzie, M. Group visits—The basis. Institute for Health Care Improvement. 5th Annual International Summit on Redesigning the Clinical Office Practice. San Francisco, March 29-30, 2004.

Tantau, C. Advanced access: Beyond the basics. Institute for Health Care Improvement. 5th Annual International Summit on Redesigning the Clinical Office Practice. San Francisco, March 29-30, 2004.

Wasson JH, Godfrey MM, Nelson EC, Mohr JJ, Batalden PB: Microsystems in Health Care: Part 4. Planning Patient-Centered Care. *The Joint Commission Journal on Quality and Safety*. Volume 29 (5):227-237.