

2015 National Institutes of Health Clinical Center Strategic and Annual Operating Plan

Warren G. Magnuson Clinical Center
Mark O. Hatfield Clinical Research Center

Message from the Clinical Center Director

As we enter the mid-point of the decade, the National Institutes of Health Clinical Center sees remarkable opportunities to contribute to medical discoveries in important new ways, standing stronger than ever as a “House of Hope” for the nation and, in many respects, for the world. We set our goals with careful attention to the needs of our Institute colleagues and to the input of our key advisory bodies while staying abreast of contemporary trends in biomedical research and health care delivery. We are keen to develop our workforce in a manner that aligns to our goals, with a key focus on training the next generation of clinical researchers and generating outcomes that improve the health of the nation and the world.

With our proud history of taking on the world’s toughest public health challenges, the Clinical Center begins 2015 at the forefront of addressing the Ebola crisis. Housing a unique isolation facility known as the Special Clinical Studies Unit, the Clinical Center is poised to continue to provide state-of-the-art care for patients with Ebola who are participating in research protocols to mitigate this deadly outbreak. Also, the Clinical Center will continue to support the work of NIAID developing new vaccines such as its recent first-in-human clinical trials of two promising Ebola vaccines.

In the new year, the Clinical Center looks to expand its use of genetic mapping and sophisticated diagnostic tools. Our goal is to better understand not just how to manage and treat chronic diseases, but to undertake interventions that prevent diseases. This effort requires a growing emphasis on pediatric research to preempt conditions that manifest in adulthood. In addition to genomics and pediatrics, the Clinical Center will blaze new trails in immunotherapy, diagnostics, and in supporting the clinical neurosciences. With both patient and physician online portals, we will empower our patients and staff with access to faster and better information-sharing tools. The Clinical Center’s exciting new partnership program between intramural and extramural researchers continues to gain momentum while our training programs are reaching new continents. Clearly, the year ahead will bring no pause in our determination to serve as a model research hospital.

Many of the health challenges we face change over time, but the Clinical Center’s resolve to fight them never diminishes. Our strategies evolve and we embrace innovation and more efficient powerful technologies, but our core commitment to providing safe, top notch patient care and excellent training to new researchers is steadfast. I invite you to review our 2015 operating plan in the pages to follow knowing that our lofty aims become reality due to a workforce with unparalleled expertise and tireless dedication.

John I. Gallin, M.D.
Director, NIH Clinical Center

Planning Framework

[Graphic: Planning Framework]

This is a circular graphic that depicts the Clinical Center planning framework, which represents a continuous improvement model. The outside circle encompasses Environmental Influences, including Internal & External Stakeholder Input, Key Influencing Factors, and Governance & Advisory Groups depicted as a continuous loop.

The interior circle reflects the strategic components of the plan, including Vision & Mission, Guiding Principles, and Long Term Goals. The vision and mission feed into the core processes which then inform the long term goals.

The middle circle represents the operational components of the plan, and has at its heart the annual targets. The annual targets are encircled by a plan-do-check-act cycle.

Planning/Budget Review Process

[Chart: Planning/Budget Review Process]

October/November

- Institute Research Plans Submitted to Clinical Center (this is a programmatic requirement)

December

- Clinical Center Identifies Priorities for Hospital Infrastructure and Institute Support (this is a programmatic requirement)

January/February

- Clinical Center Develops Draft Budget (this is a programmatic requirement)

February/March

- NIH Advisory Board for Clinical Research (Reviews)

April/May

- NIH Clinical Center Governing Board (Reviews)

May/June

- NIH Steering Committee (Reviews)

July

- IC Directors (Review)

September

- NIH Director (Reviews)

Vision Statement

A vision statement answers the question: "What do we strive to be?" and is a shared view that defines what the organization wants to do or become.

As America's research hospital, we will lead the global effort in training today's investigators and discovering tomorrow's cures.

Mission Statement

A mission statement answers the question: "What is our fundamental purpose?"

The NIH Clinical Center provides a model environment for:

- clinical research
- patient care
- training

Guiding Principles

Guiding principles are the values underpinning the activities undertaken by an organization.

Respect for the Individual

At the heart of the NIH Clinical Center mission is a deep and abiding respect for the rights, preferences, and values of the individuals and communities we serve.

Innovation

The NIH Clinical Center encourages and promotes innovative practices in clinical research, patient care, training, and operations.

Diversity and Inclusion

By bringing diverse individuals together, the NIH Clinical Center addresses the issues facing the global community of patients and staff while promoting an inclusive environment.

Dissemination of Information

The NIH Clinical Center fosters global communication to disseminate innovations.

Judicious Use of Resources

Through efficient practices, the NIH Clinical Center maximizes resources dedicated to clinical research and patient care.

Long Term Goals: 2014-2018

Long range goals translate the vision, mission and guiding principles into performance-based action plans intended for the next five years.

Clinical Research

Realize the NIH clinical research vision for precision medicine including such techniques as comprehensive phenotyping and genomics, pediatrics, emerging infectious diseases, clinical neurosciences, and translational therapeutics such as cell therapy, vector development, and immunologic interventions.

Patient Care

Strengthen the culture of patient safety by minimizing adverse events, engaging patients, and leveraging health information technology.

Training

Maintain a robust and diverse training program that employs emerging technologies to deliver innovative training programs in clinical research, patient safety, and service excellence.

Annual Targets

[Chart: Annual Targets]

Annual targets are key initiatives identified to support the long range goals. Each target is assigned to a member of the executive team who is held accountable for leadership, strategy development, and results.

Core Process: Clinical Research

Long Range Goals: Realize the NIH clinical research vision for precision medicine including such techniques as comprehensive phenotyping and genomics, pediatrics, emerging infectious diseases, clinical neurosciences, and translational therapeutics such as cell therapy, vector development, and immunologic interventions.

2015 Annual Targets:

- Catalyze NIH's vision for pediatrics
- Activate new cell therapy facility
- Activate new PET GMP facility
- Develop integrated genomic and phenomic reporting for translational research
- Enhance capabilities of the Special Clinical Studies Unit

Core Process: Patient Care

Long Range Goals: Strengthen the culture of patient safety by minimizing adverse events, engaging patients, and leveraging health information technology.

2015 Annual Targets:

- Implement new strategies to improve culture of patient safety
- Plan and pilot the Referring Physician Portal
- Implement secure messaging and access to radiology images for Patient Portal
- Establish formal program in antimicrobial stewardship
- Implement imaging technology innovations for:
 - 3D tracking of disease status
 - Monitoring radiation exposure

Mission Element: Training

Long Range Goals: Maintain a robust and diverse training program that employs emerging technologies to deliver innovative training programs in clinical research, patient safety, and service excellence.

2015 Annual Targets:

- Complete rollout of patient safety and clinical quality training module
- Stabilize intramural funding commitment to Medical Research Scholars Program (MRSP) for medical, dental and veterinary students
- Expand international clinical research training by initiating a new African site and supporting programs for visiting clinical investigators
- Establish NIH partnerships to support pipeline of Native American nurse scientists
- Expand comprehensive educational program for clinical fellows synchronous with Joint Commission and ACGME requirements

Note: These annual targets are undertaken in support of the collective NIH intramural clinical research programs. The Clinical Center identified these targets, with the input of the Institutes and key external advisors, to assure provision of an outstanding hospital for clinical research. Perhaps the most pressing challenge facing the Clinical Center at the time of this plan's drafting is the issue of the declining inpatient census. Recognizing that this is a trans-NIH issue, the Clinical Center is working with its governing bodies, including the Clinical Center Governing Board and the NIH Advisory Board for Clinical Research, to assure that an optimal patient census is achieved to ensure a vibrant intramural clinical research program.

Financial Assessment of Annual Targets

[Chart: Financial Assessment of Annual Targets]

Clinical Research

Annual Target 1: Catalyze NIH's vision for pediatrics

Financial Impact for 2015: Existing resources

Annual Target 2: Activate new cell therapy facility

Financial Impact for 2015: \$1.25M in FY14 carryover funding; \$750K to be identified in FY15

Annual Target 3: Activate new PET GMP facility

Financial Impact for 2015: Funded previously

Annual Target 4: Develop integrated genomic and phenomic reporting for translational research

Financial Impact for 2015: Existing resources

Annual Target 5: Enhance capabilities of the Special Clinical Studies Unit

Financial Impact for 2015: To date, \$1M for equipment/facility renovations and \$1M for staffing/training; possible reimbursement pending

Patient Care

Annual Target 1: Implement new strategies to improve culture of patient safety

Financial Impact for 2015: Existing resources

Annual Target 2: Plan and pilot the Referring Physician Portal

Financial Impact for 2015: Software funded previously; contract support of \$100K to be funded in FY15

Annual Target 3: Implement secure messaging and access to radiology images for Patient Portal

Financial Impact for 2015: Existing resources

Annual Target 4: Establish formal program in antimicrobial stewardship

Financial Impact for 2015: 1 FTE to hire PharmD in FY15

Annual Target 5: Implement imaging technology innovations for:

- 3D tracking of disease status
- Monitoring radiation exposure

Financial Impact for 2015: Existing resources

Training

Annual Target 1: Complete rollout of patient safety and clinical quality training module

Financial Impact for 2015: Existing resources

Annual Target 2: Stabilize intramural funding commitment to Medical Research Scholars Program (MRSP) for medical, dental and veterinary students

Financial Impact for 2015: Scientific Directors will fund 19 positions in FY15 and with committed funding from the Doris Duke Charitable Foundation and pending funding from NIMHD there will be an increase in class size to 55 from 43

Annual Target 3: Expand international clinical research training by initiating a new African site and supporting programs for visiting clinical investigators

Financial Impact for 2015: Funded by South African Medical Research Council and existing resources

Annual Target 4: Establish NIH partnerships to support pipeline of Native American nurse scientists

Financial Impact for 2015: Funding for two trainees to be identified in FY15

Annual Target 5: Expand comprehensive educational program for clinical fellows synchronous with Joint Commission and ACGME requirements

Financial Impact for 2015: Existing resources

Other Ongoing and New Activities

[Chart: Ongoing and New Activities]

In addition to the Annual Targets, the Clinical Center has plans to pursue a number of important ongoing and new activities not included in this plan. All activities, whether or not included as priorities in this plan, are evaluated regularly and adjustments are made to the Clinical Center's portfolio of activities to ensure that adequate resources are allocated to continue important baseline activities as well as Annual Targets.

Clinical Research Support

Activity Outside of this Plan: Research participant perception surveys (Ongoing)

Comments: Collaborating with Clinical Translational Science Awards (CTSA) network to assess the perceptions of clinical research participants about their experiences

Activity Outside of this Plan: Inducible pluripotent stem cell (iPSC) and embryonal stem cell initiative (Ongoing)

Comments: Creation of a facility to support clinical translation of science using these techniques

Activity Outside of this Plan: Traumatic Brain Injury/Post Traumatic Stress Disorder collaboration (Ongoing)

Comments: Providing clinical assistance and clinical research support for this joint initiative with Walter Reed National Military Medical Center

Activity Outside of this Plan: Translation Research In Pediatrics Program (TRIPP) (Ongoing)

Comments: Developing with Children's National Medical Center

Activity Outside of this Plan: NIH/FDA Center for Drug Evaluation and Research (CDER) collaboration (Ongoing)

Comments: Training and ready access to FDA for clinical investigators

Activity Outside of this Plan: Evaluate clinical protocol metrics relating to INDs (Ongoing)

Comments: Collaborating with IC Clinical Directors to track IND metrics from protocols developed by institute investigators

Activity Outside of this Plan: Continue current and pursue additional outside collaborations in clinical research (New and Ongoing)

Comments: Additional opportunities for collaboration will be based on outcomes from the Advisory Committee to the Director Report from December 2014

Patient Safety/Clinical Care

Activity Outside of this Plan: Clinical Research Nursing-setting the leadership agenda (Ongoing)

Comments: The Nursing Department is expanding its work on advancing clinical research as a nursing subspecialty to include development of core metrics and defining the role of leadership in a clinical research environment

Activity Outside of this Plan: Management of the hospital environment to prevent outbreaks of multiply-resistant organisms (Ongoing)

Comments: The Clinical Center is continuing to monitor existing and new organisms

Activity Outside of this Plan: Clinical Dashboards (Ongoing)

Comments: Consolidate and automate collection and analysis of clinical quality and patient safety performance data

Activity Outside of this Plan: Implement a framework for assessing performance of clinical research units (New)

Comments: Conduct detailed unit level assessment of each patient care unit.

Training

Activity Outside of this Plan: Core Clinical Research Curriculum (Ongoing)

Comments: Principles and Practice of Clinical Research course – preparation for Cape Town, South Africa, May 2015

Activity Outside of this Plan: Medical Research Scholars Program (MRSP) (Ongoing)

Comments: Pursuing sustained public and private funding for program

Activity Outside of this Plan: Assessment of Training Program Alumni Productivity (New)

Comments: Determining metrics of success and program output for alumni of NIH one- year training programs (CRTP, MRSP); received OMB approval of alumni survey to be distributed annually; updating electronic process for disseminating survey

Activity Outside of this Plan: Clinical and Translational Research Course for Ph.D. Students (Ongoing)

Comments: Expose young basic scientists to the collaborative nature of clinical and “bench-to-bedside” research to stimulate research partnerships and increase awareness of career options

Activity Outside of this Plan: Patient Safety Training (Ongoing)

Comments: Develop formal patient safety training program for Clinical Center staff with a particular focus on fellows and other trainees

Activity Outside of this Plan: Hospital Administrative Officer (New)

Comments: Develop new training program to optimize the delivery of consistent services, and human resource and business solutions in support of departments within the Clinical Center

Information Technology

Activity Outside of this Plan: Clinical Research Information Systems (Sunrise Clinical Manager/SCM) upgrade (New)

Comments: Required upgrade of the system to version 14.3 CU 5

Activity Outside of this Plan: Rollout Two-Factor Authentication to Nursing Inpatient Units and Outpatient Clinics, and areas with shared workstations including Radiology and Laboratory Medicine and Perioperative Medicine (Ongoing)

Comments: Mandated Workstation on Wheels (WOW), Shared Computer, Apple Two-Factor implementation: September 2015

Activity Outside of this Plan: Protocol Order Set Service Center (Ongoing)

Comments: Supports development of protocol order sets in CRIS

Activity Outside of this Plan: Enterprise scheduling rollout (Ongoing)

Comments: The Enterprise Scheduling project is a multi-phased implementation to support a standard scheduling model throughout the Clinical Center for all patient appointments

Activity Outside of this Plan: CC Unified Communications (New)

Comments: As part of NIH-wide initiative, replacement of existing phone technology to Voice over Internet Protocol (VOIP), to achieve significant cost savings and provide enhanced communication capabilities

Activity Outside of this Plan: Electronic Procedure and Protocol Consents (New)

Comments: Provide electronic capture of signed consents in the patients electronic medical record enabling real-time access for clinical staff

Capital Equipment/Facilities

Activity Outside of this Plan: Major renovation of Clinical Center departments located in Ambulatory Care Research Facility (ACRF) (Ongoing)

Comments: Includes imaging, OR's, transfusion medicine, laboratory medicine, and PET. Funding requested from NIH Building & Facilities budget

Activity Outside of this Plan: Establish Facility Life Cycle Replacement Plan and funding (New)

Comments: Open for about 10 years, the Mark O. Hatfield Clinical Research Center is beginning to experience facility wear and tear. A systematic, multi-year refurbishment cycle is underway to improve the appearance of areas (units, clinics, public spaces) throughout the Clinical Center

Activity Outside of this Plan: Wayfinding Using Mobile Devices (New)

Comments: Pursuing additional application capabilities to enhance wayfinding using mobile devices within the Clinical Center complex

Activity Outside of this Plan: Renovate Patient Care Unit Waiting (New)

Comments: Partner with Friends of Patients at the NIH for funding to improve these amenities

Activity Outside of this Plan: Replacement of Nurse Call System (New)

Comments: Existing system is nearing the end of its useful life and replacement is required to ensure timely communication between patients and staff

Business Processes

Activity Outside of this Plan: Workflow Documentation Tool (New)

Comments: To improve the efficiency of workflow for financial documents through use of an automated tool; initial pilot to be conducted with Memorandums of Understanding and Interagency Agreements

Activity Outside of this Plan: Financial modeling for predictive resource planning (New)

Comments: To enable the Clinical Center the ability to forecast financial and resource impacts for multiple scenarios

Workforce

Activity Outside of this Plan: Clinical Center Employee Survey (New)

Comments: Assess employee satisfaction in areas such as career development, management, work environment, employee engagement, and diversity

Activity Outside of this Plan: Comprehensive Workforce Data Reviews by Clinical Center Departments (New)

Comments: Conduct department-level workforce analysis and planning based on compensation and award history, turnover, retirement eligibility, diversity, and employee survey data including onboarding and separation surveys

Activity Outside of this Plan: Project SEARCH (Ongoing)

Comments: Identify new sites for placement of interns with intellectual disabilities

Measuring Success

[Graphic: Operational Metrics]

The Balanced Scorecard¹ approach below illustrates the operational metrics used by the Clinical Center to evaluate performance which are monitored and reported throughout the year.

Operational Metrics

Operational Management

- Cost Per Adjusted Patient Day
- CC Department Metrics

Clinical Research

- Protocol Activity
 - Active Protocols
 - Protocols by Type
- Clinical Activity
 - Hospital Census
 - Department Workload Indicators
- Training
 - Clinical Research Curriculum Participants
- Outside Collaborations
 - Applications and Awards
 - Bench-to-Bedside Program
 - U01 Collaborations Program

Workforce

- Staffing
 - FTE and Contract Utilization
 - Turnover
 - Recruitment/Departures
- Accountability/Performance Management
 - Awards
 - Compensation
- Leadership Development
 - Curriculum Participation
 - Competency/Mandatory Training Compliance
- Diversity
 - Underrepresented Minorities

Clinical Care and Patient Safety

- Patient Activity
 - Inpatient Days
 - Outpatient Visits
- Clinical Quality
 - Wait Times
 - Patient Falls
 - Hand Hygiene
 - Medication Errors
- Patient Perception
 - Ongoing Surveys

¹Developed in accordance with the Kaplan and Norton Balanced Scorecard Method.
www.balancedscorecard.org/ accessed January 4, 2015.