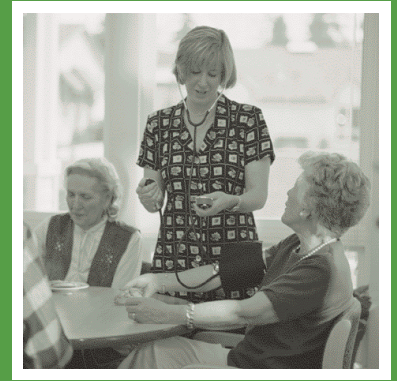


# NSW Chronic Care Collaborative



Improving the diagnosis and management of chronic obstructive pulmonary disease and heart failure

## Introduction

The increasing incidence of chronic disease is a challenge facing health services nationally and internationally. By 2020 it is anticipated that 80 per cent of the disease burden in Australia will be contributable to chronic disease. In 2000 NSW Department of Health embarked upon the NSW Chronic Care Program, which sought to improve the quality of life of people with chronic and complex conditions and their carers and families and to prevent unplanned and avoidable hospital admissions.

Phase one of the NSW Chronic Care Program (2000 - 2003) focused on the priority health areas of respiratory disease, cardiovascular disease and cancer. Statewide initiatives included the development of Clinical Service Frameworks and the distribution of *My Health Record*, a patient held record. The cornerstone of the Program was the implementation of 60 local priority health care programs in each Area Health Service across NSW. Outcomes included 56,000 bed days saved, substantial reductions in emergency department presentations and hospital admissions and readmissions and enhanced patient satisfaction and quality of life.

Phase two of the NSW Chronic Care Program (2003-2006) was established to extend the initiatives and lessons learned during phase one. The NSW Chronic Care Collaborative was a key activity of this phase and was developed in collaboration with the Clinical Excellence Commission, formerly the Institute for Clinical Excellence.

This paper draws on the findings of an independent evaluation of the NSW Chronic Care Collaborative undertaken by the Centre for Health Services Research at Westmead.

## Achievements

Key achievements from the NSW Chronic Care Collaborative in 2004 include:

- approximately 300 clinicians and managers from acute and community health services across NSW actively engaged in improving care and outcomes for patients with chronic disease
- estimated 16,000 inpatient bed days saved through decreased hospital admissions of patients with chronic obstructive pulmonary disease
- estimated 9,000 inpatient bed days saved through decreased hospital admissions of patients with heart failure
- significant improvements in the diagnosis and management of chronic obstructive pulmonary disease and heart failure, including increased referral to rehabilitation for patients with chronic obstructive pulmonary disease and increased dose titration for patients with heart failure
- improved understanding for clinicians and managers in the principles of chronic care management
- increased ability of clinicians and managers to implement clinical practice improvements for patients with chronic disease
- enhanced communication and team work across health services
- catalogue of resources to support health services in improving care for patients with chronic disease.

## NSW Chronic Care Collaborative

The NSW Chronic Care Collaborative was a clinical improvement program established to enhance implementation of NSW Clinical Service Frameworks for chronic obstructive pulmonary disease and heart failure.

Twenty-two multidisciplinary teams from rural and metropolitan health services across NSW participated in the Collaborative between early 2004 and November 2004. The Collaborative used breakthrough series methodology to facilitate uptake of best practice.

Collaborative teams were supported by an orientation session and four learning sessions, along with site visits, teleconferences and an email-based listserv to promote skills development and information sharing.

The Collaborative was successful in improving the skills of team members to introduce clinical practice improvements and consequently improved the care of patients with chronic obstructive pulmonary disease and heart failure.

## Evidence based care

The Clinical Service Frameworks provided the basis for the NSW Chronic Care Collaborative. Diagnostic and management bundles drawn from the Frameworks were the focus of the Collaborative teams' interventions.

The Collaborative teams collected data on progress on a monthly basis through medical record audits of patients with chronic obstructive pulmonary disease and/or heart failure across three points in the patient journey in an emergency department, at discharge from hospital and in a community setting including general practice or first rehabilitation appointment.

This allowed teams to monitor progress and to tailor interventions to specific components of the diagnostic and management bundles (refer to table 1).

**Table 1. Diagnostic and management bundles for the NSW Chronic Care Collaborative**

<b>Diagnostic bundle</b>	<ul style="list-style-type: none"><li>■ clinical assessment</li><li>■ spirometry</li><li>■ echocardiography</li></ul>
<b>Management bundle</b>	<ul style="list-style-type: none"><li>■ baseline investigations</li><li>■ smoking cessation</li><li>■ medications</li><li>■ referral to rehabilitation</li><li>■ self-management support</li><li>■ vaccinations</li><li>■ after hours point of contact</li><li>■ GP review</li><li>■ advanced care directives</li></ul>

## Improving diagnosis of chronic obstructive pulmonary disease and heart failure

Teams implemented a range of initiatives to ensure patients received full clinical assessments and that the uptake of spirometry and echocardiography was increased.

Key strategies included:

- development of checklists and pathways highlighting key elements of assessment and diagnosis
- education and training of acute and community health staff in the use of spirometers, combined with the development of user guidelines
- purchase of new spirometers and maintenance of existing machinery
- streamlining reporting processes for echocardiography test results.

## Improving management of chronic obstructive pulmonary and heart failure

Teams were successful in improving the management of patients with chronic obstructive pulmonary disease and heart failure through implementation of a range of interventions. These interventions led to improved care and quality of life for these patients.

Key strategies included:

- increased dose titration for heart failure patients through educating of acute and community health staff. This was supported by the development and use of guidelines and protocols
- development of referral pathways between general practitioners and smoking cessation programs using the Quitline
- assessment of smoking status on admission to the emergency department combined with referral to smoking cessation programs.

### Increasing spirometry – Sydney South West Area Health Service

The Collaborative team from the former Central Sydney Area Health Service used a partnership approach to increase the number of patients receiving spirometry in general practice.

The team focused interventions on raising awareness of evidence to support the use of spirometry and up-skilling clinicians in the use of spirometry equipment.

The team held spirometry training for general practitioners and practice nurses and invited companies to display their products. The uptake of spirometry, by those who attended the training courses, increased by 30 per cent.

### Improving communication of echocardiography results – North Coast Area Health Service

The Collaborative team from the former Northern Rivers Area Health Service facilitated communication of echocardiography results through development of an echo-specific reporting form for tests performed in hospital. For patients receiving echocardiography in private rooms, the teams introduced a system to communicate results to the hospital, general practitioner and heart failure liaison nurse.

These initiatives led to a 55 per cent improvement in the documentation of echocardiography results, thereby improving communication and reducing duplication.

- streamlined resources to develop combined pulmonary and cardiac rehabilitation programs
- awareness raising and promotion of rehabilitation and self-management programs across acute and community health facilities
- development and introduction of individualised action plans for patients with chronic obstructive pulmonary disease and heart failure
- streamlined referral to general practitioners for patients requiring vaccination, along with the introduction of opportunistic vaccination.

## Critical factors for implementing improvements for chronic obstructive pulmonary disease and heart failure

The Collaborative identified a number of key factors that are essential to ensuring sustainable improvements in the care and outcomes of patients with chronic disease.

### Increasing referrals to smoking cessation programs – Greater Southern Area Health Service

The Collaborative team from the former Greater Murray Area Health Service increased the rate of patients referred to smoking cessation interventions at Griffith Base Hospital. The team assessed smoking status and preparedness to quit of all patients arriving in the emergency department over the age of 14.

Referrals to the Quitline were subsequently made for patients expressing a desire to quit smoking.

The initiative led to 100 per cent of eligible patients being assessed for smoking history in the emergency department. Following this success, the initiative has been spread across the hospital and to other facilities within the Area Health Service.

### Medical champions

Identification and involvement of medical champions is crucial for improving care and outcomes for patients with chronic disease. Not surprisingly visible medical leadership was a key factor contributing to Collaborative team success and the achievement of sustainable improvements. Collaborative teams involving hospital medical officers demonstrated greater team morale and integration and were more likely to report sustainability and spread of successes.

### Executive leadership

Executive leadership was a further critical factor contributing to sustainable improvements and was a core driver of Collaborative team success. Executive commitment to Collaborative teams facilitated change from the top down as well as from the bottom up.

### Improving care for people with heart failure – South East Sydney/Illawarra Area Health Service

The heart failure Collaborative team at St George Hospital took a multi-pronged approach to improving the diagnosis and management of patients with heart failure.

Strategies included development of guidelines for angiotensin-converting enzyme (ACE) inhibitor and beta-blocker titration schedules for use in hospital and general practice settings, promotion and awareness raising of heart failure best practice on the hospital intranet, via regular meetings with junior medical officers and with general practitioners, aged care and palliative care staff.

By the end of the Collaborative 60 percent of heart failure patients were leaving hospital with dose titration schedules in place and 100 per cent of heart failure patients were leaving hospital with ACE inhibitors prescribed.

## Involving general practice

General practice plays a pivotal role in achieving sustainable outcomes for patients with chronic disease. The Collaborative teams recognised the importance of involving general practice and engaged both individual general practitioners and Divisions of General Practice to enhance team achievements.

## Sharing knowledge and best practice

Networking between teams was crucial for sharing knowledge and information regarding best practice and improvement strategies to enhance care for people with chronic disease. Networks were facilitated through regular face-to-face meetings at learning sessions and through communication via the email-based Collaborative listserve. The Collaborative facilitated information sharing across disease groups and clinical settings, leading to enhanced communication and teamwork and an increased understanding of the principles of chronic disease management.

### Enhancing teamwork

Area Director of Population Health and Planning

“there was a sense of a team... there was a sense that we were doing it together and that we were learning.”

## Sustainable improvements

A range of factors was identified by Collaborative teams as important to sustaining and spreading improvements including redistribution of existing resources and allocation of new resources to provide staffing for new services and to drive improvement. Ultimately sustainability requires a systems approach so that improvements are not dependent on individuals. Leadership and engagement of key stakeholders is a critical factor in this. Where improvements remain dependent on individuals to drive and support them, they are likely to prove unsustainable.

Systematising changes into daily processes, such as incorporating best practice standards of care into existing assessment tools and spreading improvements to other chronic diseases and facilities within an Area Health Service are examples of how Collaborative teams made sustainable change. Ongoing support for improvements in chronic disease at both a state and local level will facilitate sustainability.

### Involving general practice – Northern Sydney/ Central Coast Area Health Service

The Collaborative team from the former Central Coast Area Health Service adopted a range of strategies to involve general practice in improving the diagnosis and management of patients with chronic obstructive pulmonary disease.

Key strategies included audit of spirometers in general practice, regular articles in the Division of General Practice newsletter, follow-up letter and spirometry results for patients diagnosed with chronic obstructive pulmonary disease following an initiative held on World No Tobacco Day, education events and provision of a chronic obstructive pulmonary disease Information Kit for all general practitioners.

Ownership of the strategies by general practitioners was facilitated by co-location of the Collaborative team coordinator in the Division of General Practice.

## Future directions

The NSW Chronic Care Collaborative has demonstrated what can be achieved when diverse groups come together to achieve a common aim – to improve the diagnosis and management of patients with chronic obstructive pulmonary disease and heart failure.

The achievements made within the Collaborative will continue to be built upon by a range of initiatives led by the Chronic Care Unit, NSW Health including:

- continued implementation of the NSW Clinical Service Frameworks
- development and implementation of NSW Chronic Disease Strategy Phase 3 (2006 - 2009)
- ongoing engagement of general practice through partnerships with Divisions of General Practice and general practitioners
- increased emphasis on self-management and rehabilitation
- identifying and enhancing uptake of models of care coordination, care planning and multidisciplinary care for people chronic disease
- improving data to monitor chronic care.

For more information on the NSW Chronic Care Collaborative and for access to a range of resources and strategies developed by Collaborative teams refer to: [www.health.nsw.gov.au](http://www.health.nsw.gov.au)

## Suggested citation:

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