



Alleviating Emergency Demand Pressure – the HARP Effect

Jenni Leigh, June 2005

Challenge of Attributing Changes to HARP



The evaluation approach to this challenge -

- Multiple levels of analysis
 - system, cluster, project
- Both quantitative and qualitative analytical methods
- Multiple sources of data
 - VEMD and VAED data (linked)
 - HARP projects' reports
 - HARP client dataset

The case for a HARP Effect

System Level Data – HARP Hospitals



- **Emergency department presentations:**
 - Numbers increased each year
 - 16.8% increase (1999-00 to 2003-04); 5.8% increase since 2001-02
 - Annual change ranged from 7.0% to 1.3% (most recent)

- **Emergency admissions**
 - Numbers increased each year
 - 34% increase (1998-99 to 2003-04); 8.5% increase since 2001-02
 - Annual change ranged from 12.4% to 4.8% (most recent)

- **Rate of growth lower than expected**

HARP Hospitals: 65 yrs+ Cohort



- **Emergency department presentations**

- Increased by 26% between 1999-00 and 2003-04 but only by 8% since 2001-02
- Annual change ranged from 9.9% to 2.8% (most recent)

- **Re-presentations within 28 days**

- Annual reductions in the rate of growth for 'same' and 'any reason'
- Lowest growth rate for 'any reason' between 2002-03 and 2003-04

- **Number of people presenting who are admitted**

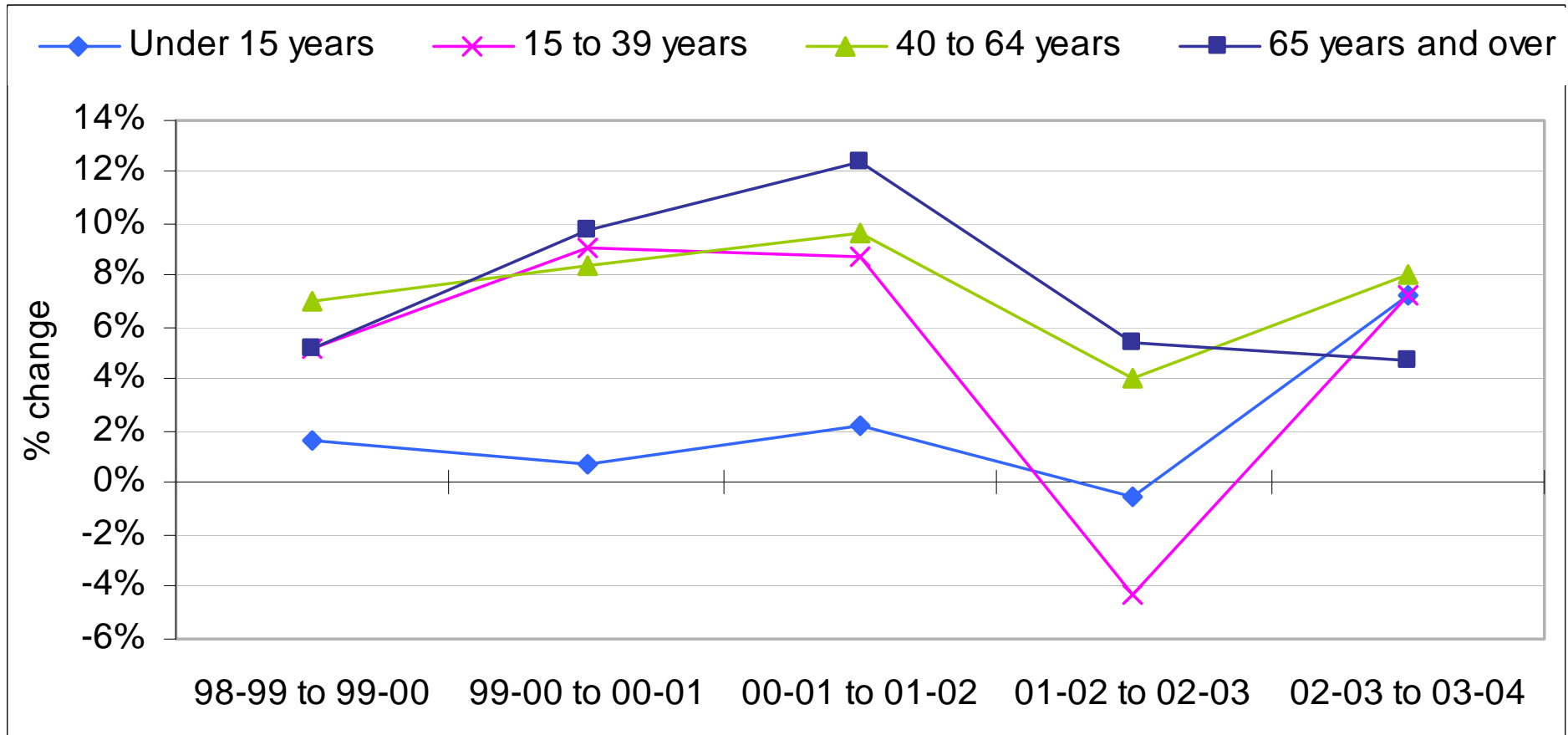
- Reducing rate of growth since 2001-02
- Lowest growth rate of all age cohorts between 2002-03 and 2003-04

- **Differential trends in the annual rates of emergency admissions**

HARP Hospitals: Emergency Admissions



Emergency Admissions to HARP Hospitals - % change from previous year



- **87 HARP projects**

- Diverse range of preventive models and activities (552 core components)
- Wide range of target groups
- Project determined indicators
- Common evaluation reporting framework

- **The HARP Schema**

- A matrix comprising:
 - HARP strategy areas
 - HARP objectives

HARP Strategy Areas



Distribution of core components (N=552)

- **Stopping Events Occurring – 44%**
- **Pre-hospital Event Management – 15%**
- **ED Event Management – 17%**
- **Post-hospital Event Management – 24%**

Distribution of core components (N=552)

- Improve management of people 'at risk' – 24%
- Improve supported management and/or self-management – 8%
- Improve responsiveness to people's needs – 14%
- Improve proactive management – 12%
- Increase health system capacity – 11%
- Improve continuity of care – 11%
- Improve communication and cohesion between services – 16%
- Improve resource efficiency – 4%

HARP Projects – reported improvements



Core components

- Wide range of indicators
- Multiple indicators for each component
- 95% reported improvements
 - spread across all HARP strategy areas and objectives

Linkages between improvements and HARP outcomes

- Direct evidence
- Indirect evidence
- Evidentiary linkages
- Logical reasoning

Characteristics of HARP client dataset

- HARP clients linked to VAED and VEMD in de-identified manner
- 30 projects contributed information for compilation of this dataset
- 10,358 individual de-identified clients within dataset

Methods and levels of analysis

- 'Whole of HARP' and clusters
 - 12 months pre-post analysis – HARP clients only
 - 12 months pre-post comparative analysis – HARP and non-HARP cohorts
- Individual projects
 - 6 or 12 months pre-post analysis – HARP clients only

HARP Clusters: COPD



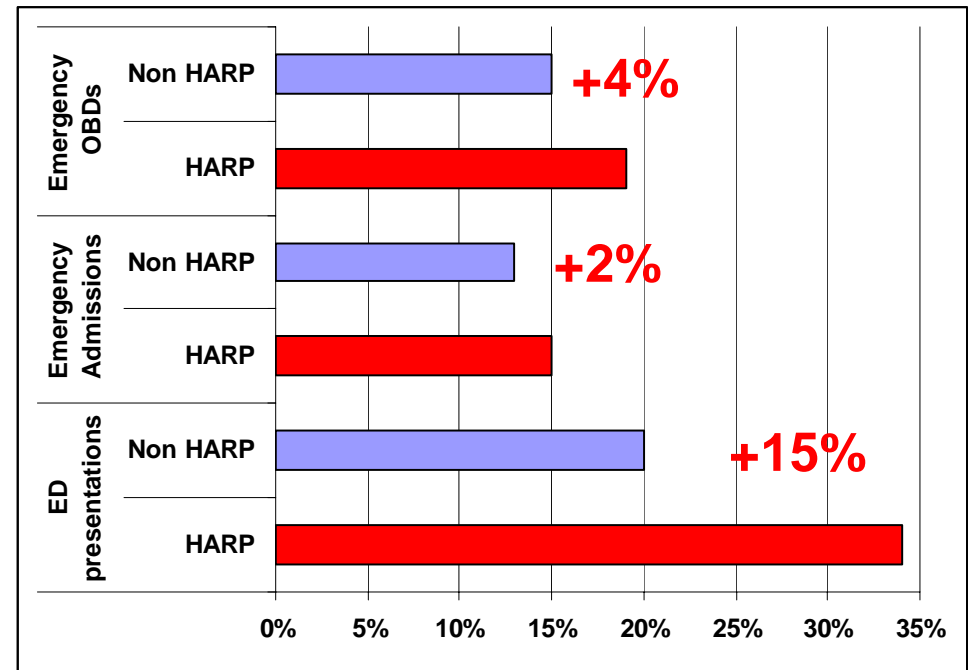
HARP Clients Pre-Post Analysis

ED Presentations ↓ 29%

Emergency Admissions ↓ 29%

OBDs ↓ 15%

HARP compared to Non HARP Cohorts



HARP Clusters: CHF



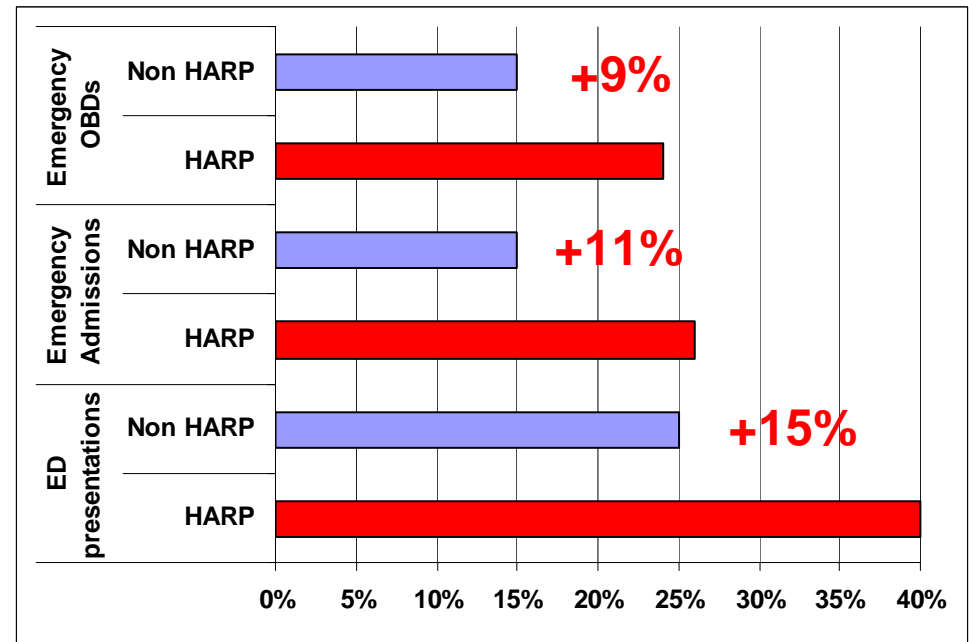
HARP Clients Pre-Post Analysis

ED Presentations ↓ 58%

Emergency Admissions ↓ 44%

OBDs ↓ 59%

HARP compared to Non HARP Cohorts



HARP Clusters: Diabetes



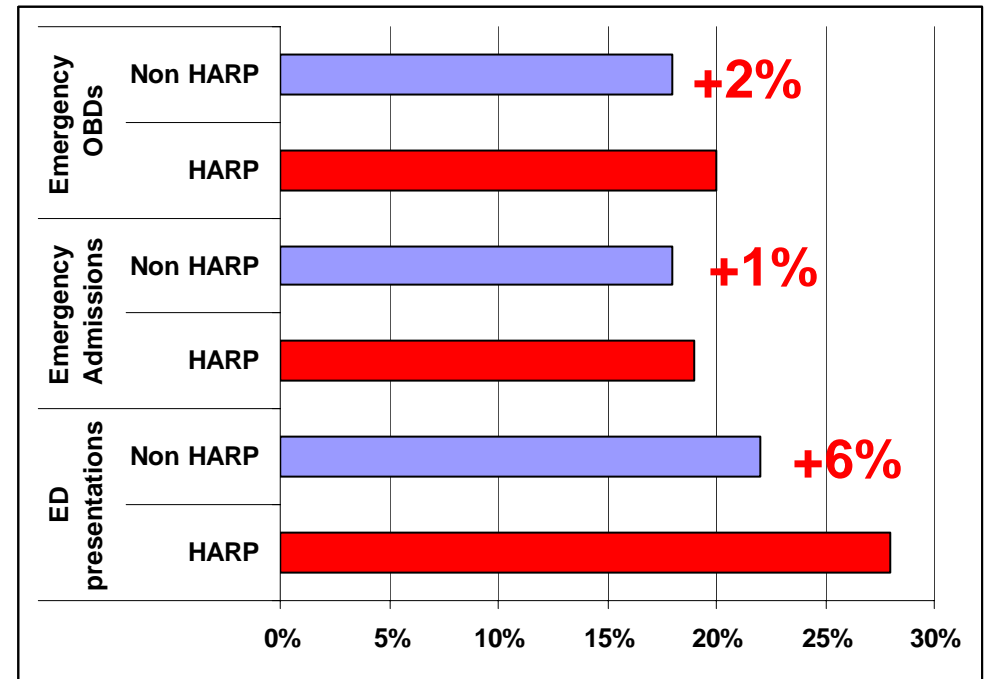
HARP Clients Pre-Post Analysis

ED Presentations ↓ 14%

Emergency Admissions ↓ 25%

OBDs ↓ 31%

HARP compared to Non HARP Cohorts



HARP Clusters: Complex needs (65yrs+)



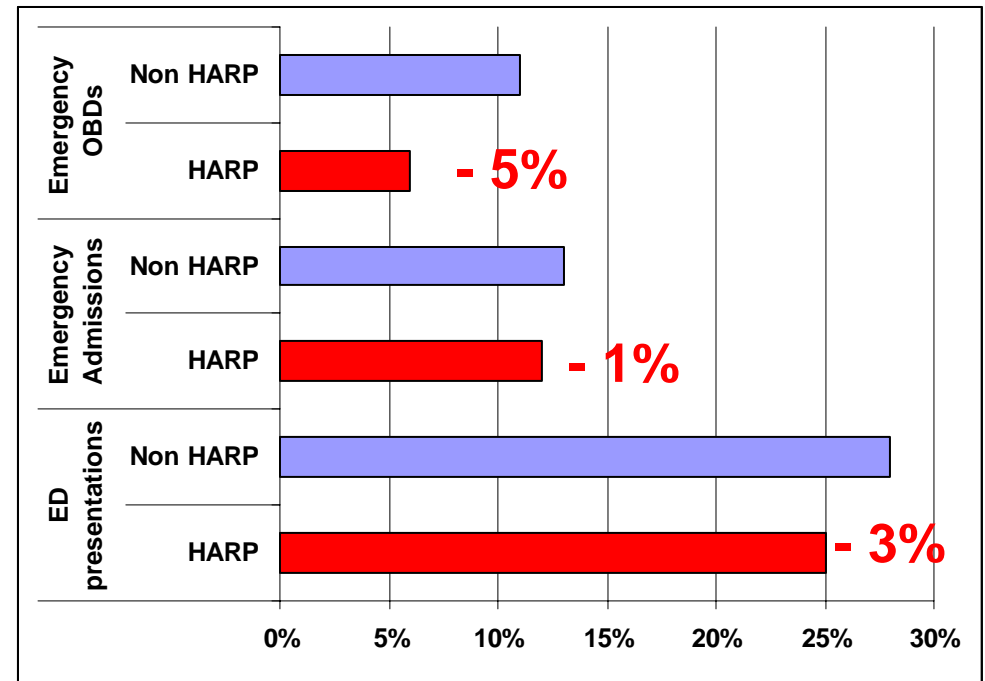
HARP Clients Pre-Post Analysis

ED Presentations ↓ 33%

Emergency Admissions ↓ 9%

OBDs ↓ 1%

HARP compared to Non HARP Cohorts



Evidence for a HARP Effect



The combined evidence from:

- Analyses of available system level data
- Projects' reported improvements
- Analyses of system level data for HARP clients

Clearly demonstrate that HARP clients had reduced emergency department presentations and emergency admissions, and HARP contributed to a reduction in demand pressure

Factors contributing to HARP Effect



- **Substantial investment in the potential of a ‘prevention’ initiative**
- **Collaboration between DHS and health services/agencies**
- **Broad parameters established for projects**
- **Requirement for joint model development – acute/community**
- **Creation of a learning culture**
- **Evolving nature of HARP in response to lessons learned**
- **Enthusiasm of collaborating stakeholders**
- **Commitment of project staff**