Alleviating Emergency Demand Pressure – the HARP Effect

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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

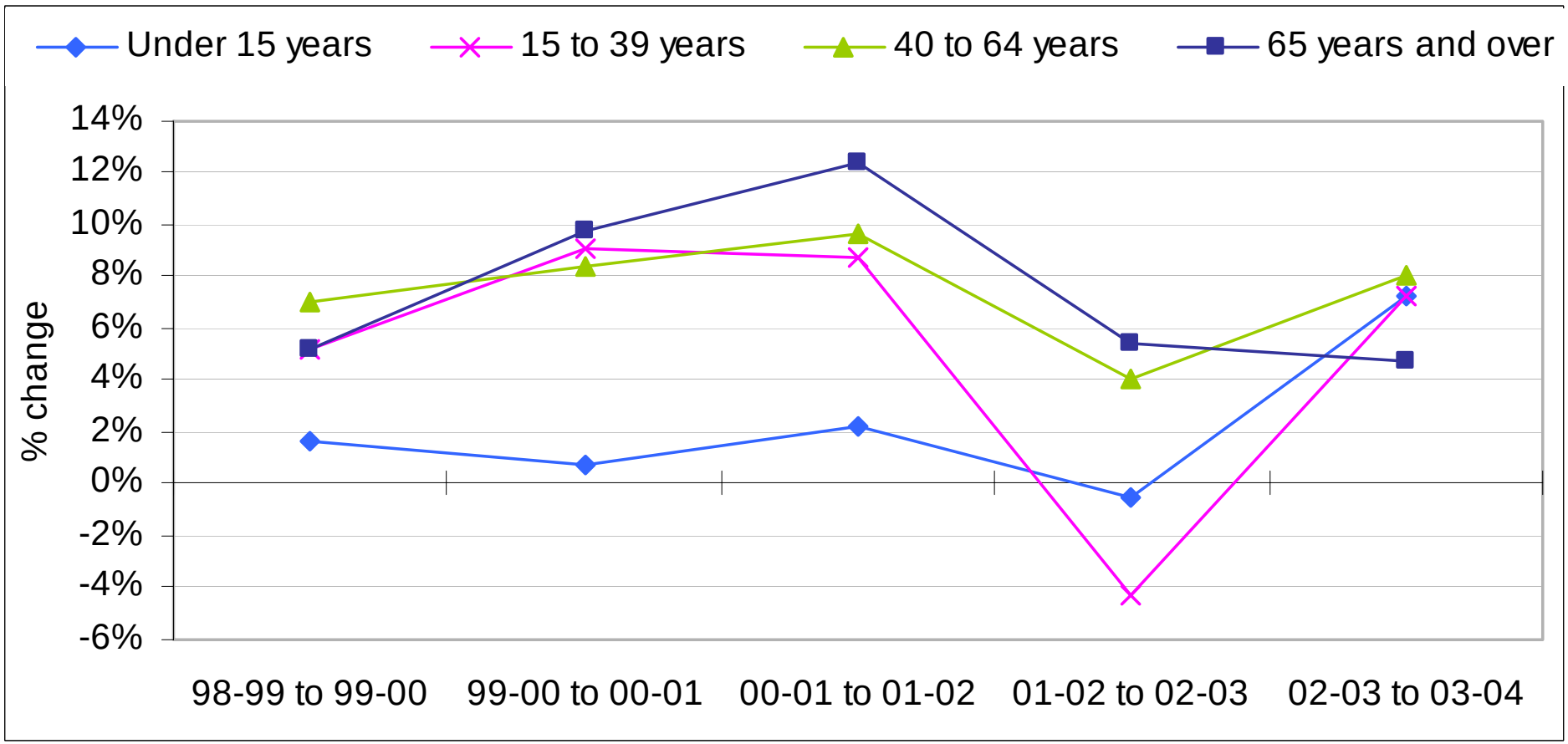
- **Emergency department presentations:**
  - Numbers increased each year
  - 16.8% increase (1999-00 to 2003-04); 5.8% increase since 2001-02
  - Annual change ranged from 7.0% to 1.3% (most recent)
- **Emergency admissions**
  - Numbers increased each year
  - 34% increase (1998-99 to 2003-04); 8.5% 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



HARP Project Reports

- **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%**

HARP Objectives

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

HARP client dataset

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

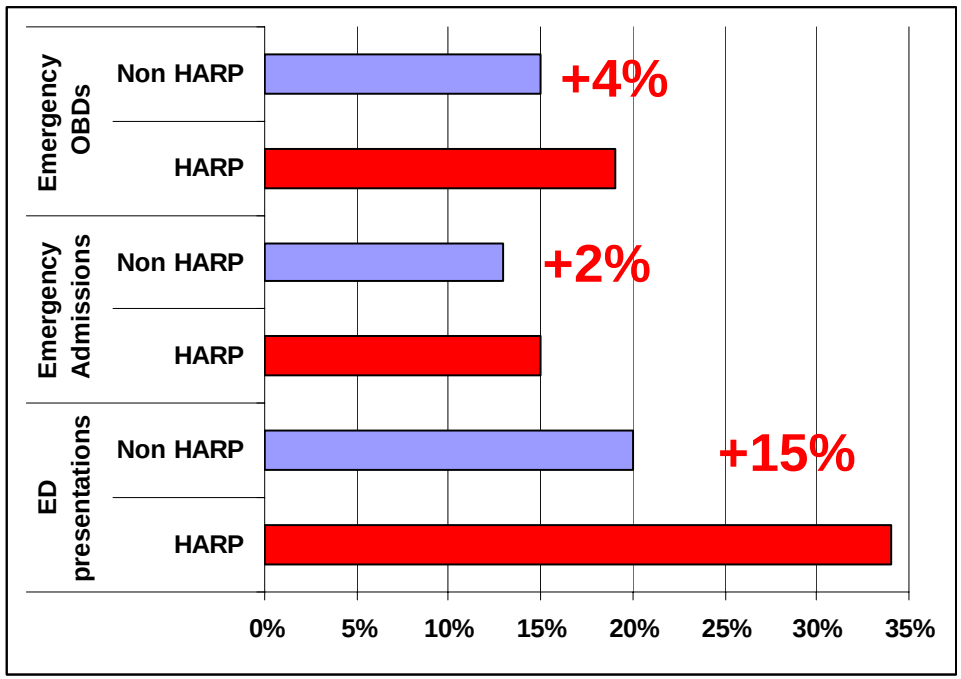
- 'Whole of HARP' and clusters
  - 12 months pre-post analysis – HARP clients only
  - 12 months pre-post comparative analysis – HARP and non-HARP cohorts
- Individual projects
  - 6 or 12 months pre-post analysis – HARP clients only

HARP Clusters: COPD

HARP Clients Pre-Post Analysis

ED Presentations	**↓ 29%**
Emergency Admissions	**↓ 29%**
OBDs	**↓ 15%**

HARP compared to Non HARP Cohorts

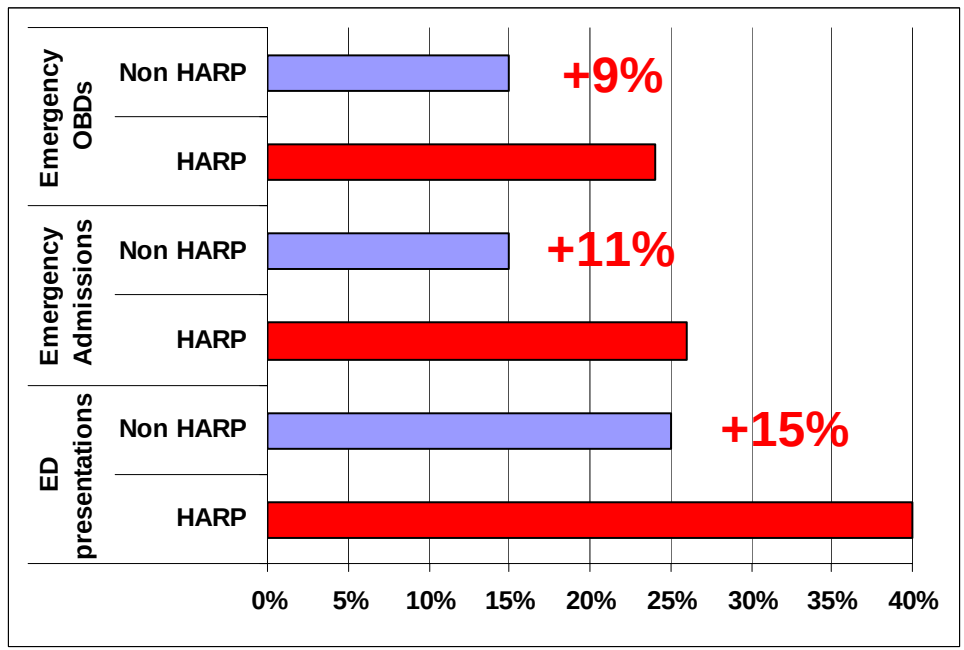


HARP Clusters: CHF

HARP Clients Pre-Post Analysis

ED Presentations	↓ 58%
Emergency Admissions	↓ 44%
OBDs	↓ 59%

HARP compared to Non HARP Cohorts

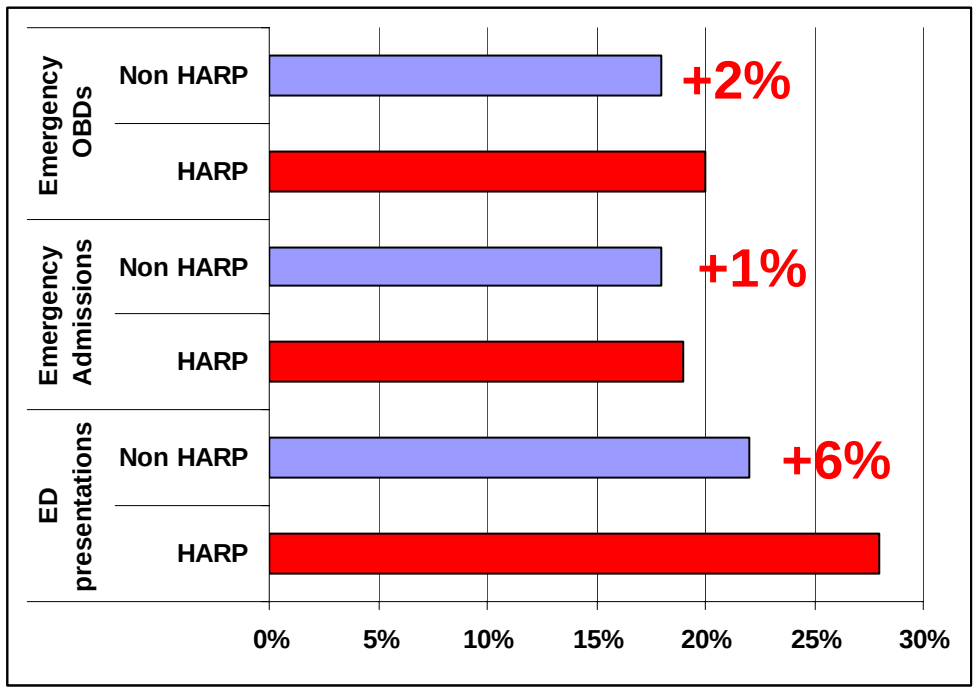


HARP Clusters: Diabetes

HARP Clients Pre-Post Analysis

ED Presentations	↓ 14%
Emergency Admissions	↓ 25%
OBDs	↓ 31%

HARP compared to Non HARP Cohorts

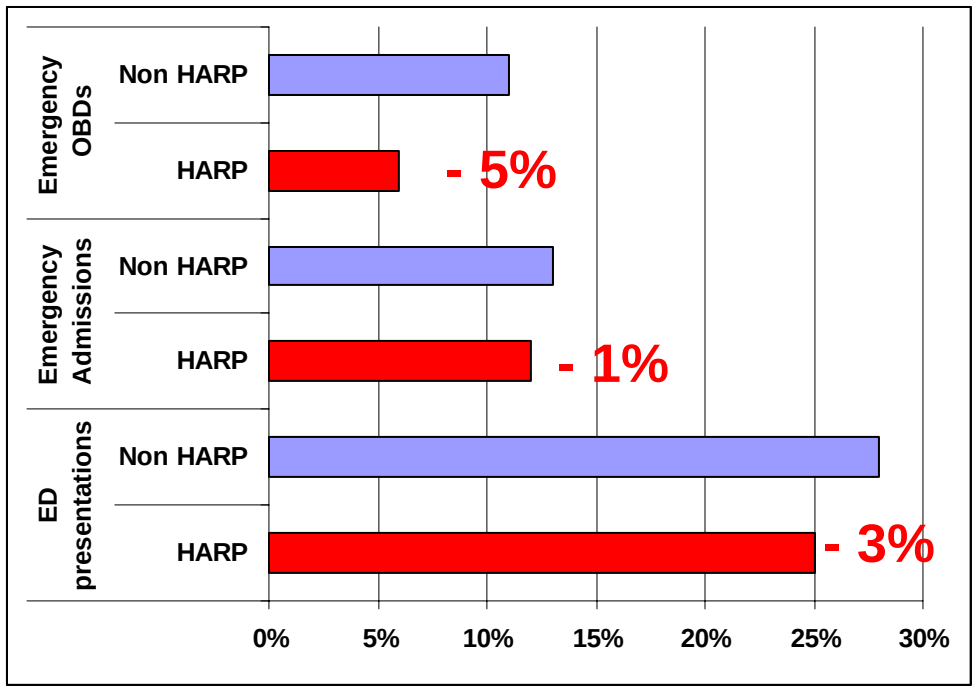


HARP Clusters: Complex needs (65yrs+)

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