



Ballarat Health
Services

Diabetic Audit

Some Interesting
Findings

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Brief Introduction

- Retrospective audit
- Ballarat Health Services
- Type 1 diabetic paediatric patients

Where are we?



A little about Ballarat Health

- Bed Capacity: -16 bed Paediatric ward
-12 bed special care nursery
- ~200 admissions in 1/12
- Try to manage patients locally
- Diabetic Educator, Paediatricians
- Visiting endocrinologist every 3/12
- No public social work services

Why do it?

- No previous comparative data
 - Geelong, Royal Children's Hospital, Australia wide
 - Private v Public
- Gives a universal goal to diabetic Mx in addition to individual patient aims
- Diabetic Care was noted as having perceived inadequacies on a hospital risk register

Why Present Today?

- The impact of social and psychological difficulties
- Differences in outcomes based on CSII use



Patient Population

- Inclusions:

- Diagnosis of Type 1 Diabetes
- Currently Mx in Ballarat
- 18 years and under

- Exclusions:

- Age over 18
- Pregnant
- Most recent results obtained on diagnosis
- Discharged from BHS

Data Collection

- **Main Outcome Measure:**

 - Most recent HbA1c

- **Other information collected:**

 - Patients age

 - Year of diagnosis

 - Weight/Height

 - Insulin regime and device used

 - TDD, Units/kg

 - Complications and Co-morbidities

Sample Size

- **Public Patients:**

n=48

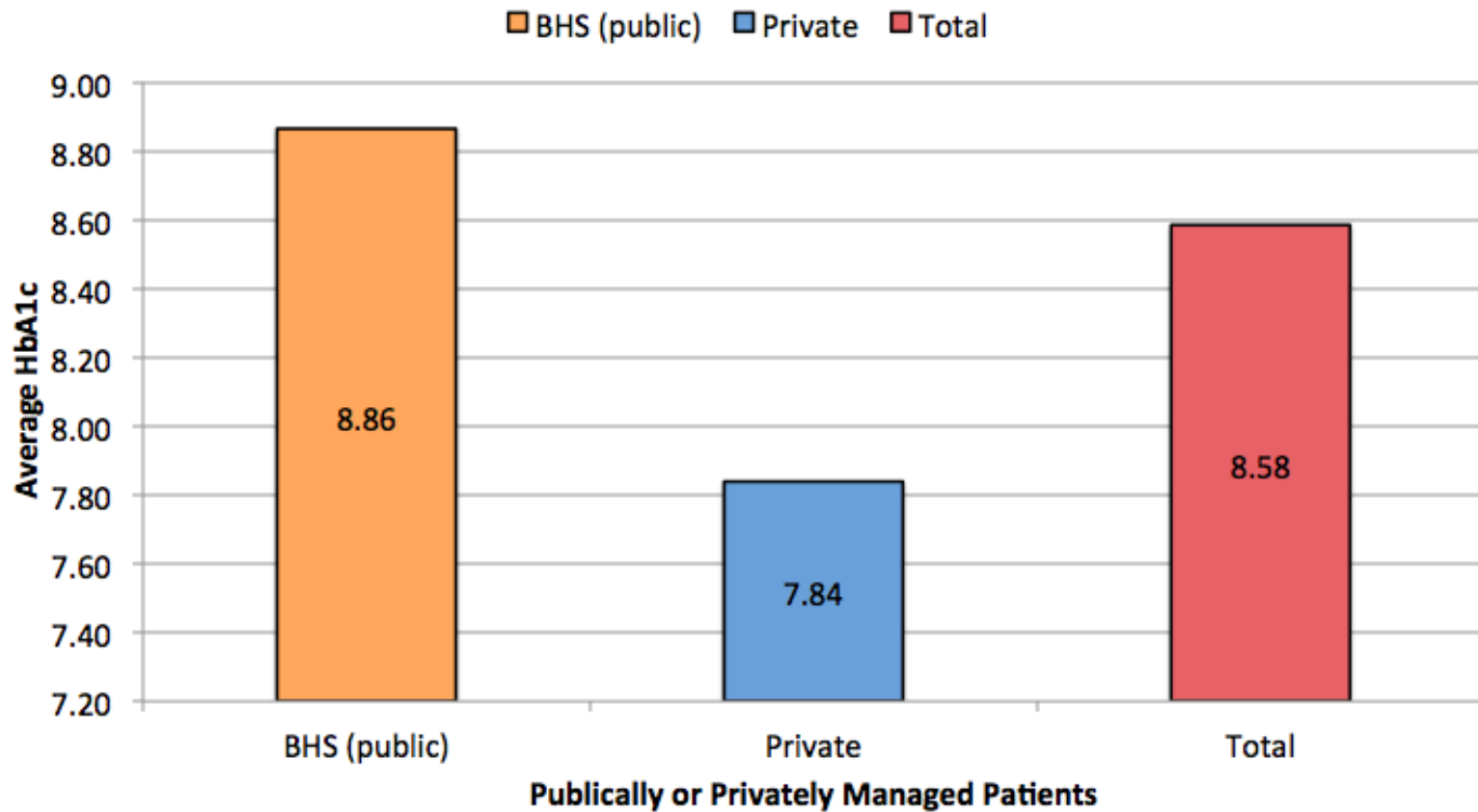
- **Private Patients:**

n=18

- **Total= 66 patients**

Public v Private

Average HbA1c results in Ballarat



Comparative Data

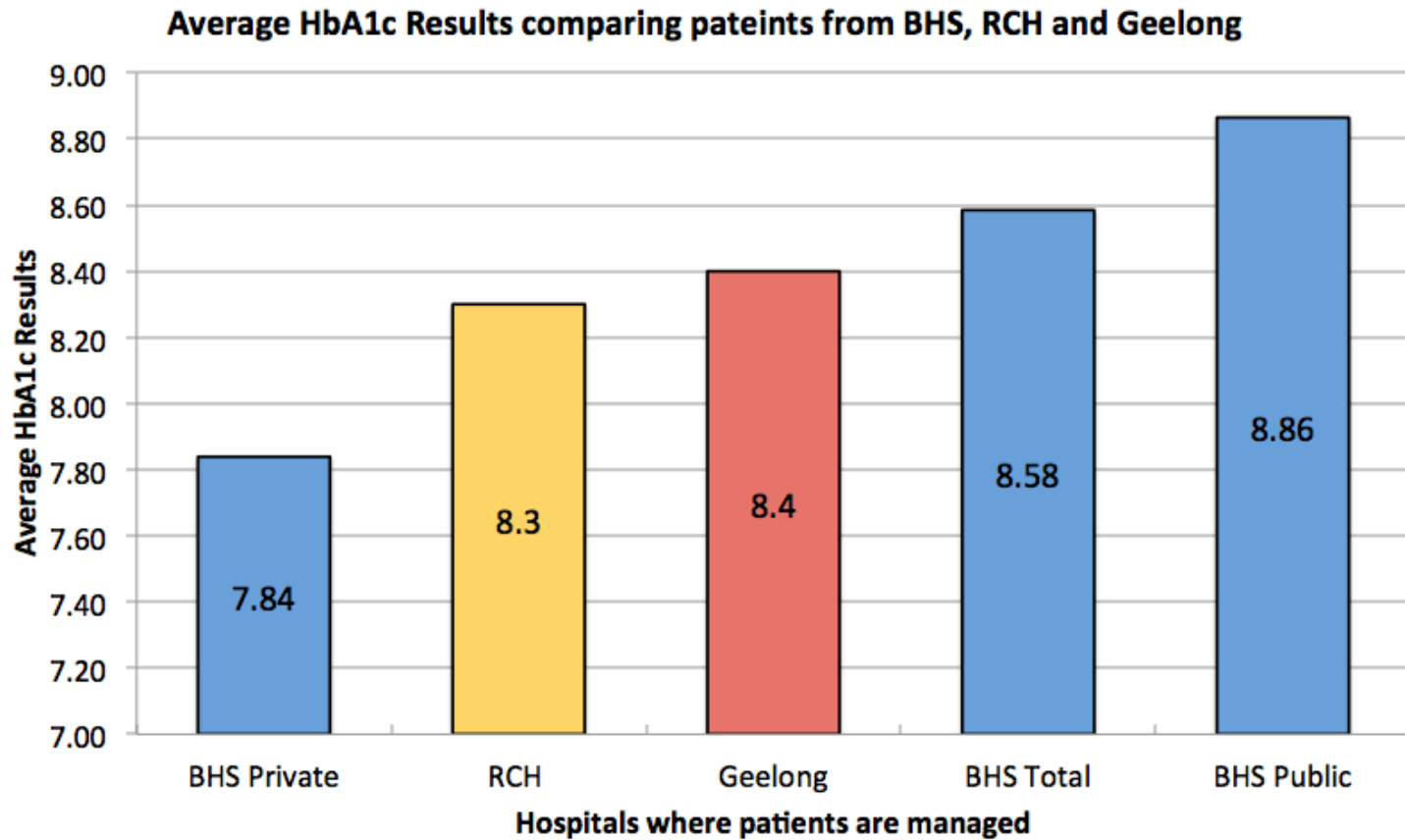
- ◎ **Royal Children's Hospital Data:**
-Rural outreach program

Geography does not limit optimal diabetes care: Use of a tertiary centre model of care in an outreach service for type 1 diabetes mellitus

Peter J Simm,^{1,2} Nicole Wong,¹ Lynne Fraser,³ John Kearney,⁴ Judy Fenton,⁵ Kim Jachno⁶ and Fergus J Cameron^{1,2}

- ◎ **Geelong Hospital**

HbA1c averages by Hospital



An alternate outcome measure

Short report: Care for children and adolescents with diabetes in Australia and New Zealand: Have we achieved the defined goals?

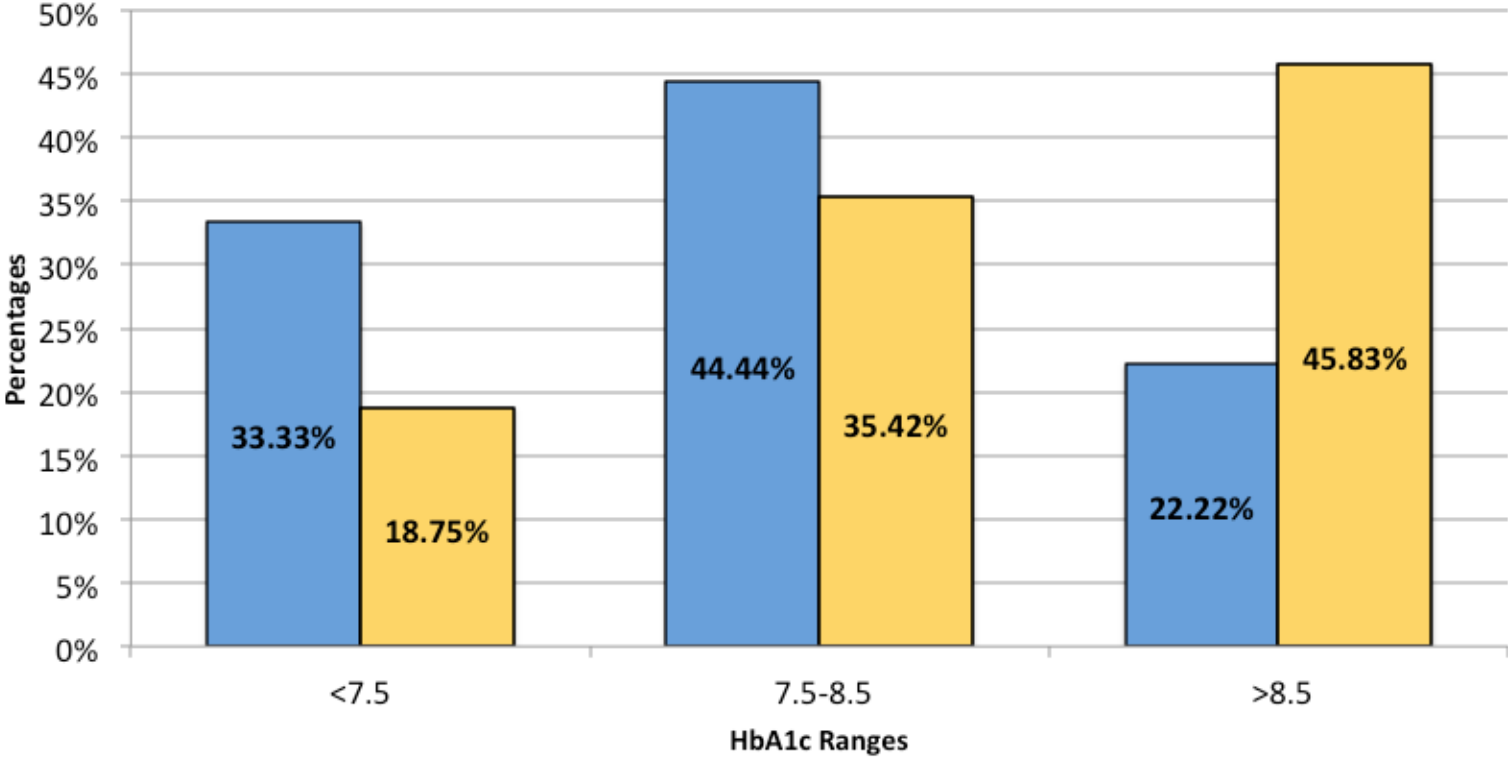
Fergus Cameron,¹ Andrew Cotterill,² Jennifer Couper,³ Maria Craig,^{4,5,6} Elizabeth Davis,^{9,10} Kim Donaghue,^{4,5}
Timothy Jones,^{9,10} Bruce King^{7,8} and Barbara Shell¹⁰

Percentage of Patients Reaching Targets
HbA1c <7.5

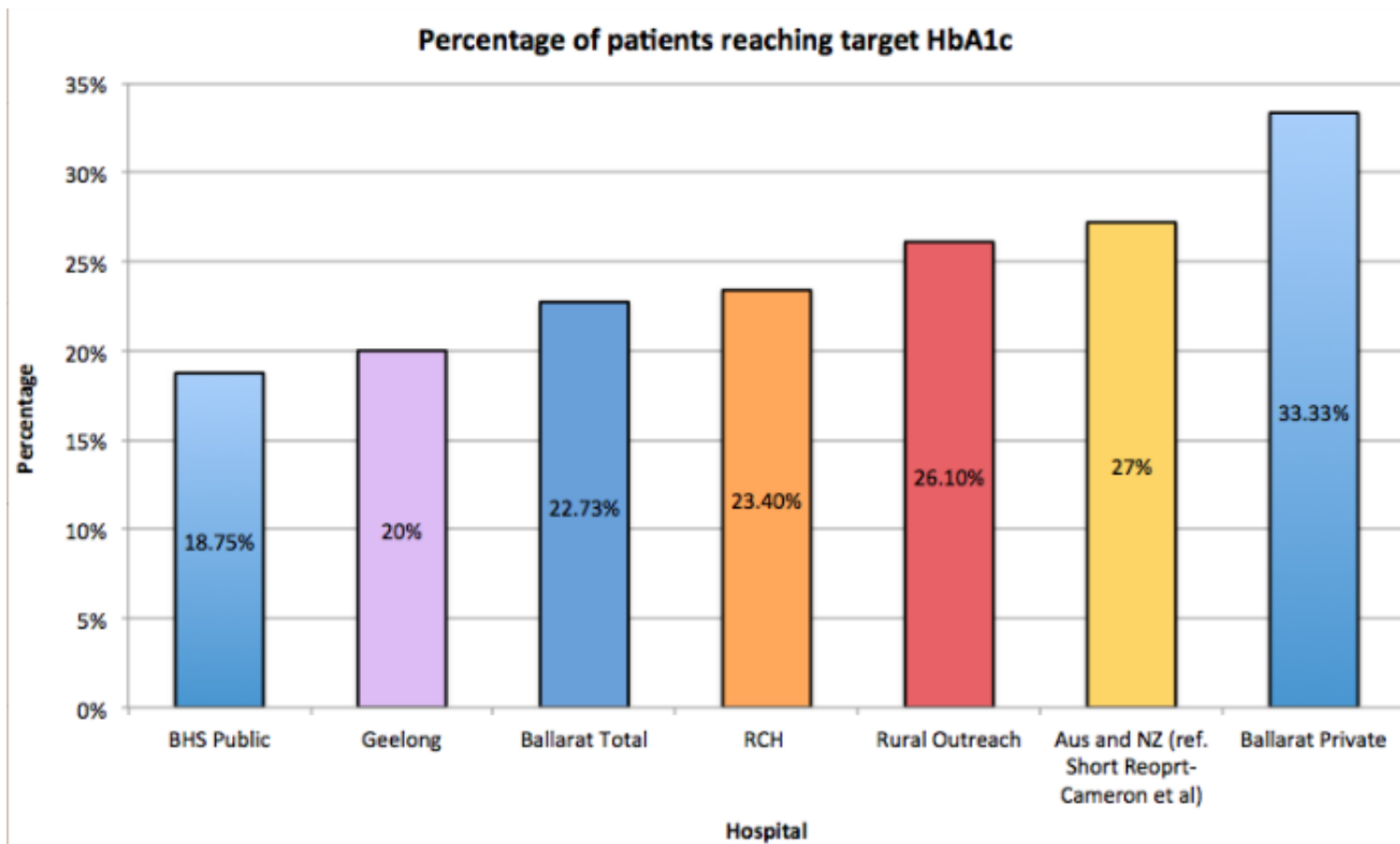
Reaching targets in BHS

Percentage of patients in each HbA1C range

■ BHS Private ■ BHS Public



Reaching Targets against Comparators

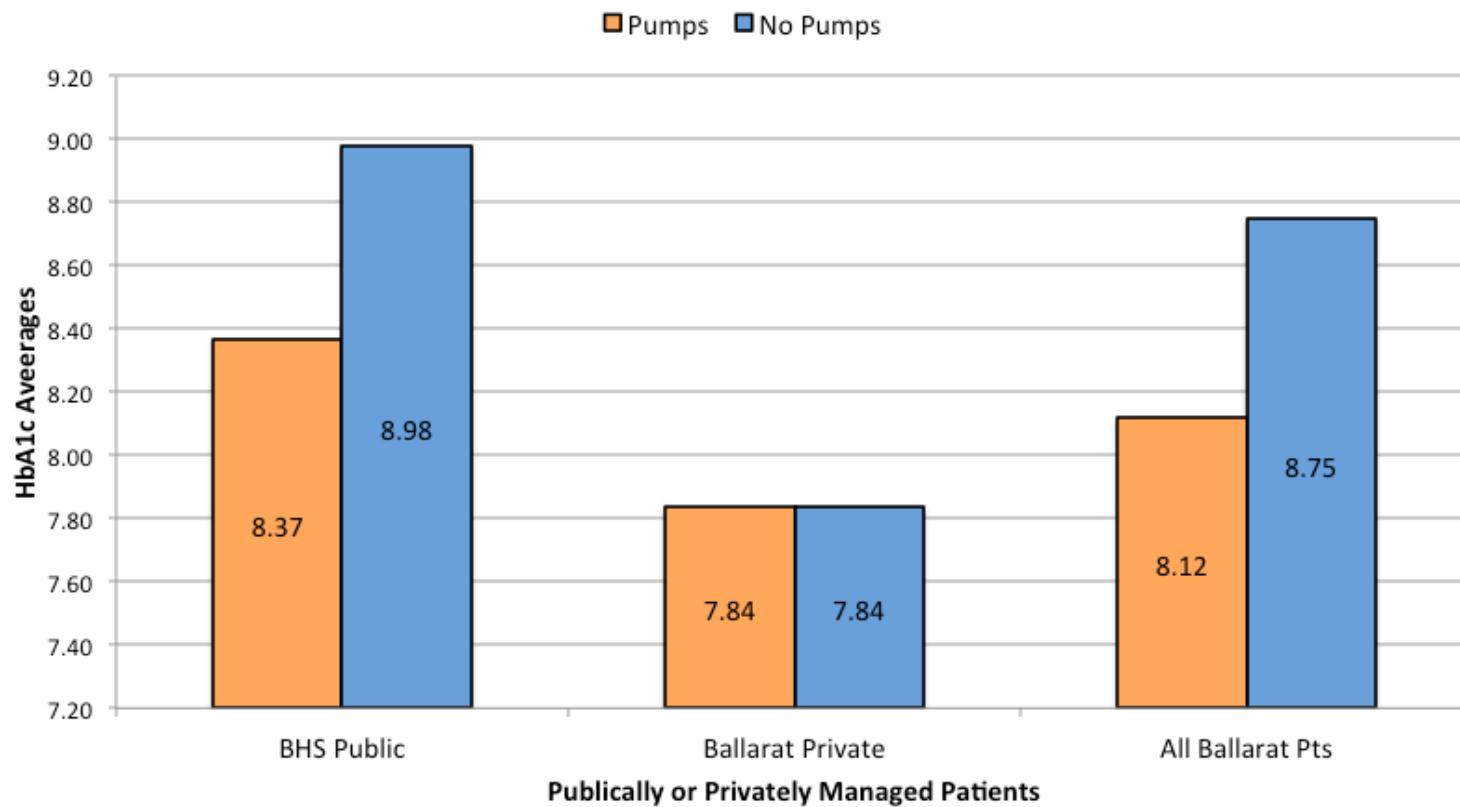




Why the discrepancies?

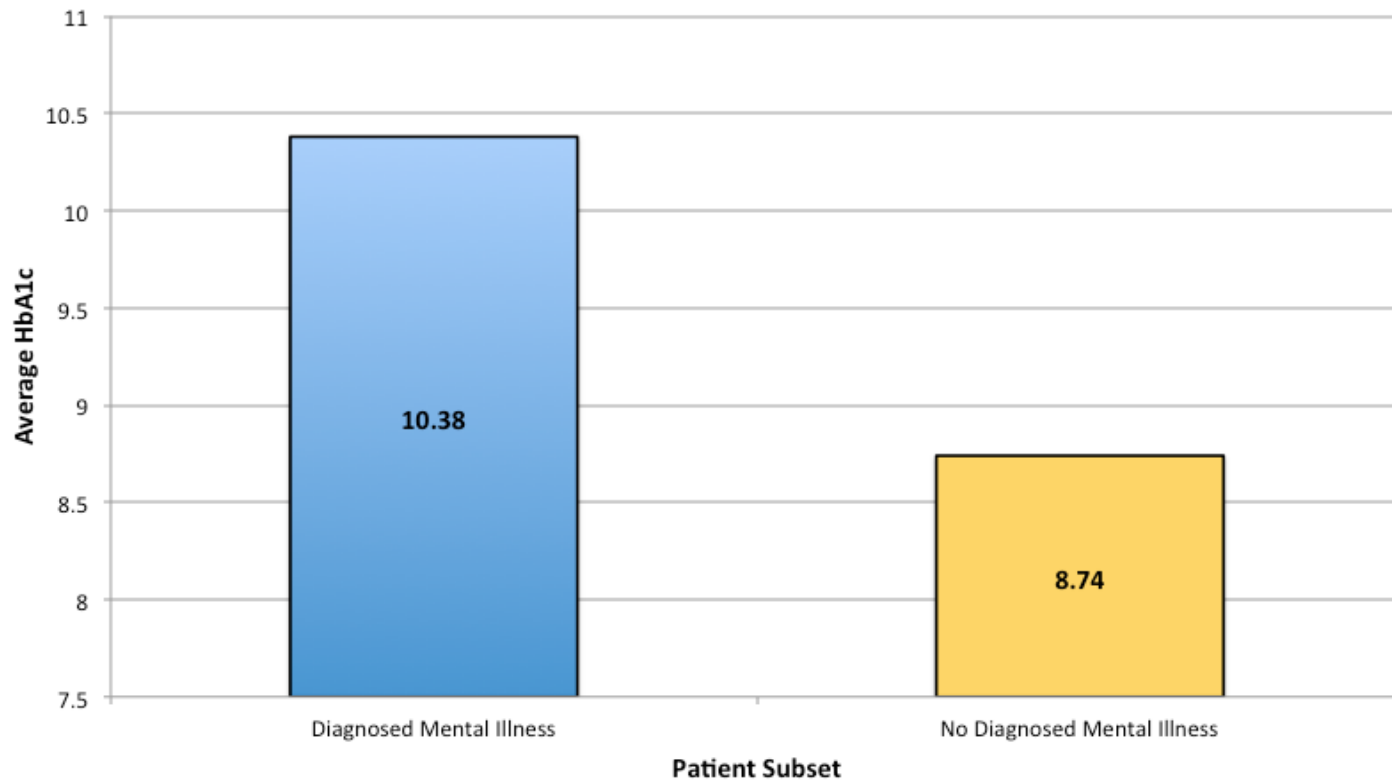
Influence of CSII

Average HbA1c results of patients on pumps v other regimes



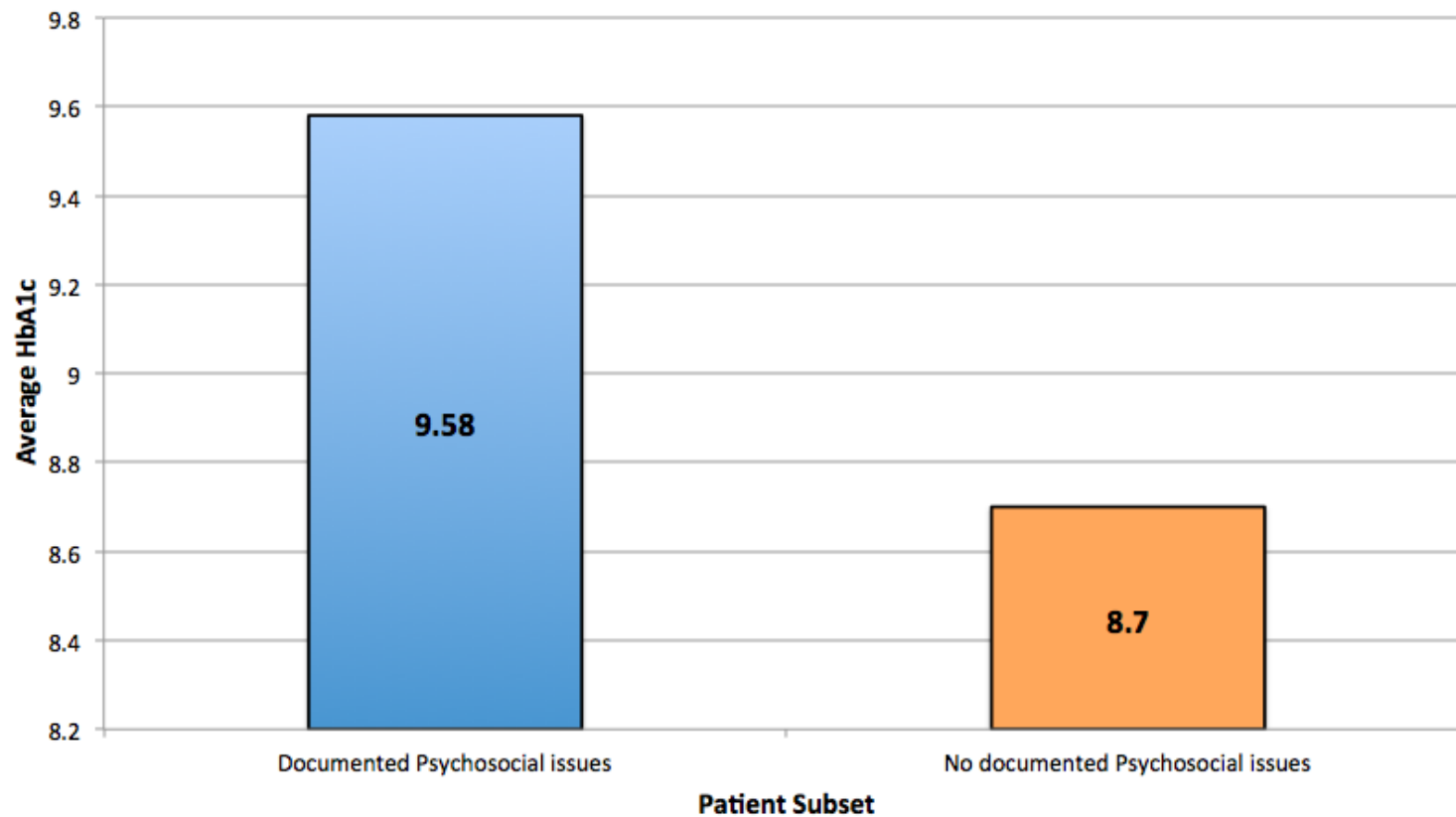
Impact of Mental Illness

The Impact of Mental Illness on HbA1c Averages



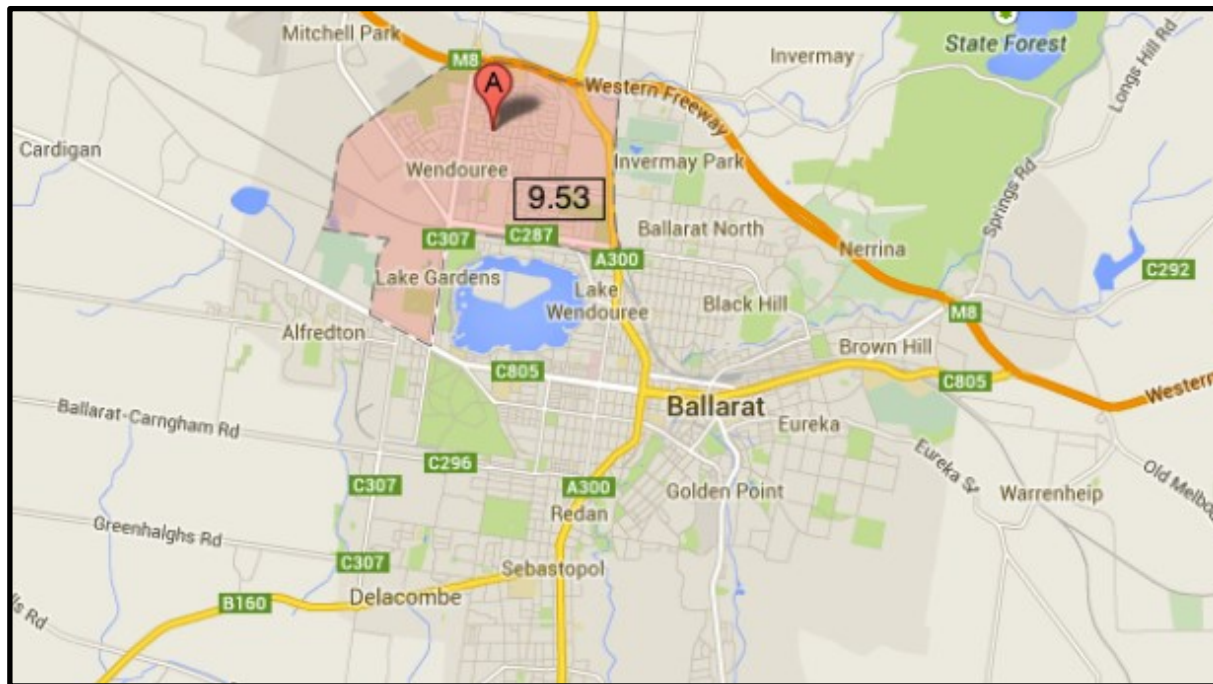
Impact of Social Dysfunction

The Impact of Social Circumstances on HbA1c Averages



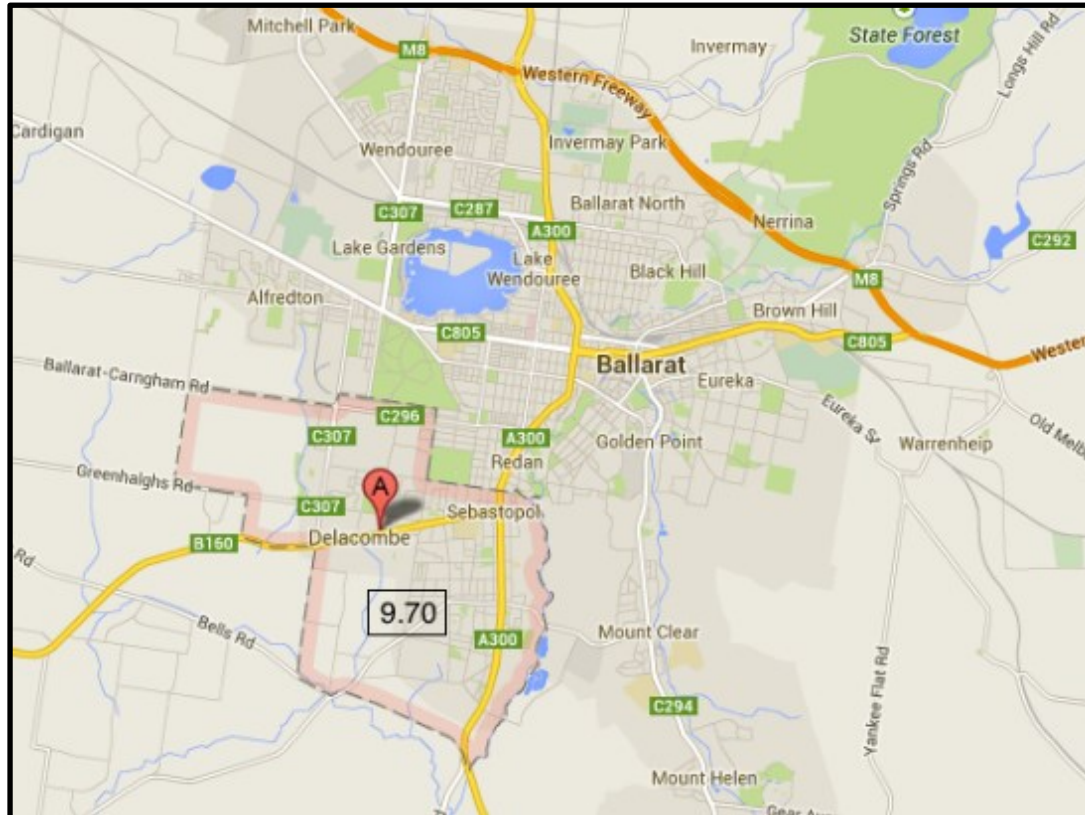
Post code?

Wendouree



BHS HbA1c Average: 8.86

Sebastopol, Delacombe



BHS HbA1c Average: 8.86

Implications

- Aim to increase Insulin Pump Use
- The role of Psychosocial component:
 - The implementation of social work and psychology services
 - targeting specific demographics?



Any Questions?