## Improving West Coast access to care and the journey for individuals and families with prediabetes and diabetes

#### Primary Care Improvement Facilitators Pauline Ansley February 2018



HEALTH QUALITY & SAFETY COMMISSION NEW ZEALAND



## A little bit about me...

• Pauline Ansley



Proof that the sun shines on the West Coast and Westport is paradise (NZs best kept secret)

- Clinical Manager WCPHO
- Registered Nurse
- Rural General Practice and hospital background
- One of the smaller PHOs
- The only PHO on the West Coast



## The West Coast PHO...

- 7 Practices (plus 8 rural clinics)
- 6 VLCA, 1 non VLCA
- 4 are WCDHB owned
- ≈ 30,000 patients
- Covering 513 Kms

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- Coast Medical 1231
- Buller Medical (Karamea and Ngakawau rural clinics) 6219
- Reefton Medical 1532
- Greymouth Medical (Moana rural clinic) 9204
- High Street Medical 4578
- Westland Medical 5552
- South Westland Area Practices (Hari Hari, Whataroa, Franz Josef, Fox Glacier, Haast clinics) 1439





## The West Coast PHO...

### West Coast DHB Population

33,190 (2016/17)

- Tends to be older
- Lower proportion of Māori, almost no Pacific
- Proportionally more deprivation than nationally
- Poverty, poor literacy, unemployment, isolation and difficulties accessing health care
- Significant travel distances to main centres
- High level of disease burden
- Transient healthcare workforce







## **Project Overview**

Improving the health care experience of those in our community who have been identified as having (Pre-diabetes) and Diabetes
Together
I'm Not Diabetic...





## **Improvement Team**

- 2x General Practices (~ 6,300 / 4500 patients (n=10,800)
- Project teams:
  - 2 Enrolled Nurses
  - 2 Kaupapa Maori Nurses
  - 2 Kaiawhinas
  - 2 PHO Health Navigators
  - 3 RNs (2 Practice Nurse, 1 Diabetes Nurse Specialist)
  - 2 Consumers
  - 1 GP





## **Problem Statement**

- Review of WC Diabetes care against the National Standards identified areas for improvement, supported by:
  - Lower than target DAR rates (77%)
  - Inequitable engagement (82% Maori, 65% Indian/Asian)
  - Significant number of people with poor diabetes control (HbA1c >64)
  - No structured programme for pre-diabetics





## Impact

 Large numbers of diabetics not being reviewed and having minimal contact unless having emergencies / complications



- Suboptimal clinical care 47% elevated HbA1c, 67% raised cholesterol – 58% on statins, 60% elevated bp, 45% elevated urine creatinine – 63% appropriately medicated
- ≈1200 pre-diabetics
- Not able to prevent progression from pre-diabetes to diabetes



# To reduce the average hbA1c level of Buller Medical diabetes patients with hbA1c above 64mmol/l by 10% from 82.7% to 74.4% by April 2019





## **Diagnose the problem - Data**

- Quantitative data
  - Karo reports: register, demographics, ethnicity, hbA1c, cholesterol, bp, renal, medications. retinal screening, DAR, CVRA,
  - Query Build: NHI level



- Qualitative data
  - Stakeholder workshop Ishikawa Diagram
  - Process mapping Local Diabetes Team (LDT) workshop
  - LDT review of Diabetes National standards
  - Consumer voice



## **Diagnose the problem- Ishikawa Diagram**

### • Fishbone Diagram

#### Patient Staff Environment fear locums – lack continuity lack of understanding uncomfortable in clinical cultural responsiveness not having support from family environment misdiagnosis system not user friendly location base shortages more education distance non-judgemental denial Weather level of communication 9-5 hours plain speak supervision Trust 15min appt Factors training financial barrier contribute to continual low annual review rates, inequity and poor diabetes control **Processes Equipment/resources** Training/education referral pathway reliable patient,/whanau time constraints accessible staff Accessing IT systems difficult insulin start experience lack of integration confusion for patients poor QI transport



## **Diagnose the problem- Affinity Diagram**

- Improved care coordination and delivery
  - Wrap around services
  - Quality of appointment
- Timely access
- Improved patient experience and relationship
- Accurately identified population





## **Driver Diagram**





## **Diagnose the problem**

 Diabetes review and retinal screening have a 10-20% gap from 93-95% retinal screening and only 75-85% of DARs being completed



 Question: what motivates/enables people to access retinal screening that could be applied to Diabetes care?



## **Baseline Measurement**

- 109 people with a latest hbA1c reading > 64mmol/l (in the last year)
  - Of which the average hbA1c is 82.7mmol/l
  - Of which 15 Maori and 1 Pacifika have an average hbA1c of 93mmol/l





## **Baseline Measurement**

| Diabetes over 16 w   | ith HBa1C over | 65 in the last y       | ear to 20 A                      | pr 2018           |                   |                                    |         |              |
|----------------------|----------------|------------------------|----------------------------------|-------------------|-------------------|------------------------------------|---------|--------------|
| Number of people     |                |                        |                                  |                   |                   |                                    |         |              |
| QB                   |                | Karo (from             | Karo (from DAR advanced form)    |                   |                   |                                    |         |              |
| 110 / Apr - Apr 2018 | ?              | 66 with HbA1c above 64 |                                  |                   |                   |                                    |         |              |
|                      |                | 226 annual             | 226 annual reviews Apr 17-Mar 18 |                   |                   |                                    |         |              |
|                      |                | Type<br>1              | Туре<br>2                        | Other<br>Diabetes | Total<br>Diabetes | As %<br>Total<br>Annual<br>Reviews |         |              |
|                      |                |                        |                                  |                   |                   |                                    | Smokers | %<br>Smokers |
|                      | NZEuro         | 18                     | 163                              | 12                | 193               | 85%                                | 30      | 13%          |
|                      | Maori          | 2                      | 12                               | 4                 | 18                | 8%                                 | 8       | 4%           |
|                      | Pacific        | 0                      | 0                                | 0                 | 0                 | 0%                                 | 0       | 0%           |
|                      | Indian         | 0                      | 4                                | 0                 | 4                 | 2%                                 | 0       | 0%           |
|                      | Other          | 0                      | 11                               | 0                 | 11                | 5%                                 | 1       | 0%           |
|                      | Total          | 20                     | 190                              | 16                | 226               | 100%                               | 39      | 17%          |



## **Baseline Measurement**

|   |   | TC<br>>=4                                   | % TC<br>>= 4                                     | > =4 &<br>on Statins                                 | % > = 4<br>on<br>Statins   | Systolic<br>>130                                 | Diastolic<br>>80                                   | % Sys<br>greater<br>than 130                                   | % Dias<br>greater<br>than 80  |
|---|---|---|--|--|--|--|--|--|---|
|   | NZEuro  | 128   | 87%  | 75   | 59%  | 104  | 33   | 54%  | 17%   |
|   | Maori   | 12  | 8%   | 5  | 42%  | 9  | 6  | 50%  | 33%   |
|   | Pacific                                       | 0   | 0%   | 0  | 0  | 0  | 0  | 0  | 0   |
|   | Indian  | 3   | 2%   | 3  | 100%   | 0  | 0  | 0  | 0   |
|   | Other   | 4   | 1%   | 1  | 25%  | 5  | 4  | 45%  | 36%   |
|   | Total   | 147   | 65%  | 84   | 57%  | 118  | 43   | 52%  | 19%   |
|   |   |   |  |  |  |  |  |  | % Annual  |
| PMS/Q B                                 |   | HbA1c<br>>64                                | %<br>HbA1c<br>>64                                | Urine<br>Creat<br>ratio >4                           | %<br>Greater<br>than 4   | > 4 &<br>on Ace<br>Inh                           | % > 4<br>on Ace                                    | Retinal<br>Exam in<br>Past<br>2yrs                             | Reviews<br>receiving<br>Ret<br>Exams                                |
| <b>PMS/Q B</b><br>89                    | NZEuro  | HbA1c<br>>64<br>52                          | %<br>HbA1c<br>>64<br>23%                         | Urine<br>Creat<br>ratio >4<br>56                     | %<br>Greater<br>than 4<br>25%  | > 4 &<br>on Ace<br>Inh<br>36                     | % > 4<br>on Ace<br>64%                             | Retinal<br>Exam in<br>Past<br>2yrs<br>179                      | Reviews<br>receiving<br>Ret<br>Exams<br>79%                         |
| <b>PMS/Q B</b><br>89<br>14              | NZEuro<br>Maori                               | HbA1c<br>>64<br>52<br>8                     | %<br>HbA1c<br>>64<br>23%<br>4%                   | Urine<br>Creat<br>ratio >4<br>56<br>4                | %<br>Greater<br>than 4<br>25%<br>2%  | > 4 &<br>on Ace<br>Inh<br>36<br>4                | % > 4<br>on Ace<br>64%<br>100%                     | Retinal<br>Exam in<br>Past<br>2yrs<br>179<br>17                | Reviews<br>receiving<br>Ret<br>Exams<br>79%<br>8%                   |
| PMS/Q B<br>89<br>14<br>1                | NZEuro<br>Maori<br>Pacific                    | HbA1c<br>>64<br>52<br>8<br>0                | %<br>HbA1c<br>>64<br>23%<br>4%<br>0%             | Urine<br>Creat<br>ratio >4<br>56<br>4<br>0           | %<br>Greater<br>than 4<br>25%<br>2%<br>0%  | > 4 &<br>on Ace<br>Inh<br>36<br>4<br>0           | % > 4<br>on Ace<br>64%<br>100%<br>0%               | Retinal<br>Exam in<br>Past<br>2yrs<br>179<br>17<br>0           | Reviews<br>receiving<br>Ret<br>Exams<br>79%<br>8%<br>0%             |
| PMS/Q B<br>89<br>14<br>1<br>1           | NZEuro<br>Maori<br>Pacific<br>Indian          | HbA1c<br>>64<br>52<br>8<br>0<br>1           | %<br>HbA1c<br>>64<br>23%<br>4%<br>0%             | Urine<br>Creat<br>ratio >4<br>56<br>4<br>0<br>0      | %<br>Greater<br>than 4<br>25%<br>2%<br>0%<br>0%  | > 4 &<br>on Ace<br>Inh<br>36<br>4<br>0<br>0      | % > 4<br>on Ace<br>64%<br>100%<br>0%               | Retinal<br>Exam in<br>Past<br>2yrs<br>179<br>17<br>0<br>4      | Reviews<br>receiving<br>Ret<br>Exams<br>79%<br>8%<br>0%<br>2%       |
| PMS/Q B<br>89<br>14<br>1<br>1<br>1<br>5 | NZEuro<br>Maori<br>Pacific<br>Indian<br>Other | HbA1c<br>>64<br>52<br>8<br>0<br>1<br>1<br>4 | %<br>HbA1c<br>>64<br>23%<br>4%<br>0%<br>0%<br>2% | Urine<br>Creat<br>ratio >4<br>56<br>4<br>0<br>0<br>0 | %       Greater       than 4       25%       2%       0%       0%       0%       0%       0%       0%       0% | > 4 &<br>on Ace<br>Inh<br>36<br>4<br>0<br>0<br>0 | % > 4<br>on Ace<br>64%<br>100%<br>0%<br>0%<br>100% | Retinal<br>Exam in<br>Past<br>2yrs<br>179<br>17<br>0<br>4<br>9 | Reviews<br>receiving<br>Ret<br>Exams<br>79%<br>8%<br>0%<br>2%<br>4% |



## **Project Measurements**

| Measure Name:      | Operational Definition: | Data Source(s) | Data Collection:<br>Schedule<br>Method | <b>Baseline:</b><br>Period<br>Value | <b>Goals:</b><br>Short Term<br>Long Term |  |  |  |
|--------------------|-------------------------|----------------|--|-------------------------------------|--|--|--|--|
| Outcome measures   |                         |                |  |                                     |  |  |  |  |
|                    |                         | 1              |  |                                     | Short term goal:                         |  |  |  |
|                    |                         |                |  |                                     | Long term goal:                          |  |  |  |
| Process Measures   |                         |                |  |                                     |  |  |  |  |
|                    |                         | 1.1            |  |                                     | Short term goal:                         |  |  |  |
|                    |                         |                |  |                                     | Long term goal:                          |  |  |  |
| Balancing Measures |                         |                |  |                                     |  |  |  |  |
|                    |                         |                |  |                                     | Short term goal:                         |  |  |  |
|                    |                         |                |  |                                     | Long term goal:                          |  |  |  |



## **Capturing the Patient Experience**

- Whakakotahi regional meeting consumers present - 2 local diabetic patients one who is chair of local consumer working group
- 2 consumers on LDT
- 2 consumers on project teams





## **Voice of the Customer**

- Keen to be involved
- Enjoyable
- Access problems
  - Transport
  - Time and communication
  - Availability of services
  - Family/whanau involvement for support
  - Respect
  - Cultural awareness and competency





## Stakeholder / Consumer co-design

- Stakeholder analysis and communication plan
  - Stakeholders invited to HQSC site visits/workshops
  - Regular meetings with support team for project team
  - Patient survey for DAR consumers PDSA
  - Participate in any relevant training
  - Communication
  - Teamwork using key provider groups e.g. Poutini Waiora, health navigators
  - Transalpine diabetes support
  - LDT support
  - Consumer co-design



