

# NGATI AND HEALTHY: DIABETES PREVENTION IN ACTION

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## BACKGROUND

- Ngati and Healthy is a community-based diabetes prevention programme set in the rural Maori community of the East Coast of New Zealand where about half of the adults in the tribal (Ngati Porou) community have a glucose metabolism disorder.
- Ngati Porou inhabit and own most of the East Coast. Community life is based around dozens of hapu (sub-tribal groups) and family life around whanau (extended family). Approximately 6,000 people live in the area.
- A strident demand from the community for proactive action around diabetes, a positive working relationship between our Team Leader and diabetes researchers and the knowledge that Te Rooopu Matehuka (the Maori Diabetes Group) were advocating for a preventive approach to diabetes ignited a collective enthusiasm and initiated the diabetes prevention project.
- **The Ngati and Healthy Prevent Diabetes Project** is a collaboration between a Maori owned Primary Health Care provider (Ngati Porou Hauora) and a university-based research team (the Edgar National Centre for Diabetes Research).
- **The aim** is to reduce the prevalence of insulin resistance in the short term, and thus reduce type 2 diabetes and its complications the long term.
- **The key strategy** is to work closely with tribal health workers and local organisations using local resources and talents so that the programme will become embedded into everyday community life.

## INTERVENTION

- The intervention, begun in 2004, has a **population-based approach** and long term success is entirely dependent on community buy-in and ownership of the programme's components.
- A baseline survey in 2003 informed the **3 key messages**:
  - (i) Increase consumption of fruit and vegetables
  - (ii) Increase consumption of wholegrain foods
  - (iii) Increase exercise levels
- Ngati Porou Hauora kaiawhina (community health workers) have been the critical link between the health professional/research team and the community at every step of the project from the outset, including the prevalence surveys. Their knowledge of the community is invaluable and their dedication to achieving the project goal is unremitting.
- Community initiatives were designed to support the 3 behavioural changes at all levels in the community. For example:
  - 1. Health Promotion:**
    - Radio Ngati Porou ads, jingles and interviews
    - Messages based around local survey data
    - Posters featuring local personalities and scenery
  - 2. Structural change programme:**
    - Working with schools to develop 'water only' and 'healthy lunchbox' policies
    - Development of community gardens
    - Retailer promotions of healthy options
    - Employer (fisheries and forestry) collaboration
  - 3. Community-based education opportunities**
    - Community-based exercise classes
    - Supermarket label reading and cooking/nutrition classes
    - Weigh-ins and menu swaps



## EVALUATION

- Formal evaluation is a critical part of our community intervention research and the community have embraced the evaluative process.
- We deliberately chose not to use a sample/control group; we considered this to be unethical in a community context given current knowledge about diabetes prevention.
- We are using interrupted time series prevalence surveys of glucose metabolism disorders and health behaviour, as well as formative and process evaluation methods. Prevalence surveys are being carried out at baseline, 2 years, 5 years and 10 years.
- **Key pre-intervention survey results were:**
  - age-standardised prevalence rates of diabetes = 10.6%;
  - impaired glucose tolerance or impaired fasting glucose = 4.5%;
  - insulin resistance = 37%.
  - of the population surveyed, 67% had a BMI >30kg/m<sup>2</sup> and 47% had a family history of diabetes.
- Formative evaluation and process evaluation have been extremely important to the ongoing development and re-shaping of the programme components and activities. It has revealed that:
  - some clinic staff were not informed of the programme's aims and methods.
  - young men were not taking part in the education opportunities.
  - the importance of intervention team infrastructure, co-ordination and management support had been neglected.
  - the long term public health vision needed constant reinforcement.
  - we had often underestimated the work that parts of the project would entail.

## INSIGHTS

- The challenge of this community-based lifestyle change project is huge, but the common goal and trusting partnership forged between the community and professional groups holds the project in good stead.
- Success of this intervention is entirely reliant on the involvement of local people at every stage of implementation.
- We believe that the principles of embedding a programme in a local community are highly transferrable.
- We are clear that this project must continue for at least 10 years before desired health behaviour changes lead to long term health gains.
- We look forward to a successful, long term intervention that truly survives by embedding Ngati and Healthy into various parts of the resident and professional communities and by creating a leadership that is not centred on the health provider, but is owned by the Ngati Porou community.

## ACKNOWLEDGEMENTS

We would like to acknowledge the many other individuals and groups who have contributed to Ngati and Healthy; making it an enormously dynamic programme. Special thanks to the participants and volunteers.

