A partnership approach to delivering health education in remote Indigenous communities

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Introduction

Australia’s young adults are facing a grim future with reports showing that one in three people from Generation Y will develop type 2 diabetes during their lifetime and children as young as five years of age are now being diagnosed with type 2 diabetes.1 Lifelong healthy eating habits start at an early age. Poor nutrition, which includes low consumption of fruit and vegetables and high consumption of energy dense foods containing saturated fats and added sugar, significantly increases the risk of developing diabetes.2,3 Diabetes Queensland is passionate about curbing the rising rates of diabetes and as a result has developed an innovative, hands on cooking and nutrition program for adolescents, called Need For Feed. Evidence suggests that cooking and nutrition interventions targeted at school aged children can create behaviour change as well as positive nutrition knowledge gains and flow on effects to family leading to healthier meals being prepared in the home.1,4-8

The Need For Feed program teaches future generations the essential life skills of cooking and nutrition and helps them to nurture lifelong healthy eating behaviours by providing an opportunity to prepare foods, master cooking skills, taste new recipes, and enhance understanding and enjoyment of healthy foods. The program consists of 20 hours of engaging tuition and fosters an informal and supportive learning environment where participants cover topics such as food safety, knife skills, key nutrients required for good health, food budgeting, label reading, and meal planning.

Diabetes Queensland is funded to deliver the Need For Feed program to 120 schools across Queensland between 2011 and 2015 under an agreement with Queensland Health as part of the Queensland Healthy Children Implementation Plan, under the National Partnership Agreement on Preventative Health. The program is available to school aged students in grades seven to ten in public and private schools across Queensland, utilising existing school facilities and home economics teachers, however delivered outside of school hours (i.e.: after school, in school holidays or on a Saturday).

The prevalence of type 2 diabetes among Aboriginal and Torres Strait Islander people is nearly four times the prevalence reported by non-Indigenous Australians.2 The rate of type 2 diabetes mortality for the Cape York Health Service District is 289 per cent higher than the rest of Queensland.9 Apunipima Cape York Health Council is the lead agency representing the health needs of the people of Cape York. Apunipima is a community controlled organisation providing local people in Cape York the ability to have their say about what services they want and need. Apunipima has a responsibility to be responsive and adaptive to community needs and input as to ensure that quality services are provided and well received.

In May 2012, the Apunipima Nutrition team received a request from Lockhart River community (Picture 1 to deliver a nutrition education program to secondary school students in an effort to encourage students to re-engage in school. The Need for Feed program was identified as an appropriate program that had the potential to meet community needs. Through consultation, Diabetes Queensland agreed to fund the program and worked collaboratively with Apunipima to deliver the first Need for Feed program in a remote Indigenous community.
The program was run out of Lockhart River State School tuck shop with assistance from health staff, teachers and community members. Benefits to the community as a result of the program include: increased school attendance; increased cooking skills for participants and assistants; increased community capacity to support future cooking and/or nutrition programs; increased engagement between service providers and community members; and increased opportunities for community members to express service needs. There were however many challenges to delivering the program in a remote community, including: limited cooking venues and facilities; limited access to running hot water; high costs and limited availability of foods; lack of appropriate footwear; diverse learning needs of students; and poor school retention rates.

Evaluations and reflections throughout the program identified that the current program materials including recipes, educational activities and evaluation tools were not meeting the needs of Cape York participants. Qualitative feedback indicated that program resources and structure failed to: suit the cultural needs of community; accommodate specific learning needs of Aboriginal and Torres Strait Islander participants; allow for adaptability to local available ingredients; and facilitate responsiveness to unforeseen circumstances requiring cultural understanding, such as Sorry Business. These findings highlighted the need for flexible program structure, content and materials that suited the diverse needs of Cape York communities. Recognition of this need resulted in the formation of a collaborative partnership between Apunipima and Diabetes Queensland with the aim of reviewing and redesigning program materials.

Diabetes Queensland allocated funding for a further ten programs to be delivered across Cape York from August 2012 to July 2013. To cover additional costs associated with delivering the programs in remote communities, Apunipima’s Tackling Smoking and Healthy Lifestyles team provided supplementary funding for food, equipment, staffing and travel. Program materials were modified and entered a continuous improvement cycle where modified versions are re-trialed throughout the delivery
of programs with process evaluations and reflections from each successive program informing continual enhancement.

**Program aims**
The goals and objectives set by Apunipima for the delivery of *Need for Feed* across Cape York communities from August 2012 to July 2013 are as follows:

**Goal**
- To increase the number of Cape York *Need for Feed* participants consuming the recommended two (2) serves of fruit and five (5) serves of vegetables by 30% measured six (6) months post program
- To reduce the number of energy dense foods consumed by Cape York *Need for Feed* participants by 30% measured six (6) months post program

**Objectives**
- By the end of the program to obtain a 20% improvement in the number of participants that indicated they were confident to prepare foods, when compared to pre-program measures
- By the end of the program to obtain a 15% improvement in the number of participants assessed as being able to prepare and cook healthy food, when compared to pre-program measures
- Increase capacity to support future nutrition/cooking programs by training ten (10) Cape York community members and ten (10) local professional staff to support delivery of the *Need for Feed* program and future cooking and nutrition education programs by July 2013

Strengthen partnerships within and across Cape York organisations by ensuring a minimum of five (5) internal departments, five (5) health action team staff and eight (8) external partner organisations participate in program planning or delivery by July 2013

**Method**
The partnership between Apunipima and Diabetes Queensland began with the development of a Memorandum of Understanding (MoU) between the two organisations. The MoU acknowledges the working relationship between the two parties and guides collaboration, cooperation and mutual assistance in the delivery and redevelopment of materials for *Need for Feed* programs in Cape York. A Project Officer and Coordinator were appointed at Apunipima to be responsible for the review and redevelopment of resources as well as the coordination and delivery of programs.

A communication strategy was developed to facilitate the transfer of information with key program stakeholders. This included the formation of a reference group to facilitate communication amongst lead professional organisations, consisting of representatives from: Diabetes Queensland; Apunipima Nutrition and Tackling Smoking and Healthy Lifestyle teams; Queensland Health; Queensland Aboriginal and Islander Health Council; Education Queensland; Chronic Disease Resources Online; and Queensland University of Technology. A Terms of Reference was agreed upon by the reference group to provide guidance and expertise for the revision of program materials and implementation of the program across Cape York. To further facilitate communication at the local level, working groups were established according to community clusters with representation from local service providers and community members. Working groups provide community feedback on resources as well as guidance for the planning and delivery of programs which is then filtered back to the reference group.

Program planning was also guided by consultation and engagement with community members including community elders, health action teams, health workers, school teachers and other local service providers. A three month planning phase was set as the minimum requirement to enable thorough community consultation and engagement to determine the following:
if the program would suit community needs

the number of children in the community in the target age group

an appropriate venue with kitchen facilities

which program format would work best

proposed dates the program could be run

community members that could assist with the program planning and delivery

and how the program could be promoted.

Need For Feed programs are delivered according to community capacity. Programs are facilitated by Community Dietitians or Nutritionists, Nutrition Health Workers, Healthy Lifestyles Workers, Health Promotion Officers, School Health Nurses, Teachers and where possible final year Nutrition and Dietetic students from Queensland University of Technology. Assistants from local community members is also sought to develop community capacity for ongoing nutrition programs.

Evaluations are undertaken throughout each program through process evaluations (reflections, issues logs and program feedback) and impact evaluations (questionnaires both pre and post program). Reflections and evaluations on program delivery and the resources trialled are recorded in the weekly working groups and reported back to Diabetes Queensland and stakeholders through the reference group.

Results

The modifying of program materials to meet the specific needs of communities across Cape York has been guided by evaluations from each successive program trial. Since August 2012, twenty seven (27) pictorial recipe sets, ten (10) education support materials and three (3) evaluation tools have been developed and trialled across programs. Qualitative feedback from field testing of these resources has indicated high satisfaction rates. Where participants have been provided with the option of written or pictorial resources, all participants have indicated that the pictorial resources are preferred. Process evaluations have revealed a need for continuous program flexibility, which has resulted in the transition of program materials from a set manual to a recommended range of resources that could be used to meet each session’s objectives, subject to facilitator discretion.

Since the initial Need for Feed trial in Lockhart River in May 2012, the program has been delivered in a further four (4) communities across Cape York, including Aurukun, Napranum, Weipa and Cooktown. Community consultation and planning for delivery of programs in Mossman Gorge, Wujal Wujal, Pormpuraaw and Kowanyama in early 2013 has been under way since October 2012. To date, a total of thirty (30) Need for Feed sessions have been delivered across the four (4) programs ranging from three (3) to eight (8) sessions delivered per program. Participation increased across the programs with the highest number of participants recorded in Napranum (n=31). A total of eighty nine (89) Cape York students and four (4) community members have participated in the programs so far. Three (3) of the programs have been delivered in the ‘after school’ format and another two (2) in the ‘holiday’ format.

A total of sixteen (16) staff from partner organisations have participated in program delivery, including four (4) students from the Queensland University of Technology, five (5) Education Queensland staff and seven (7) health professionals including five (5) Apunipima staff and two (2) Queensland Health staff members. Since August 2012 a total of seven (7) organisations including Diabetes Queensland, Apunipima, Queensland Health (including Weipa, Cooktown and Cairns Hinterland based services), Queensland University of Technology, Chronic Disease Resources Online, Queensland Aboriginal and Islander Health Council, Education Queensland and Island and Cape Retail Stores have partnered to assist with program planning and delivery. A total of five (5) Apunipima teams have engaged in the
Delivering the Need For Feed program in Cape York has presented unique challenges for reflection including: remoteness, Cape York is predominately classified as remote or very remote; limited food supply, food supply in Cape York is affected by seasonality, with road access being cut to some communities for approximately 5 months of the year with selected areas relying on emergency resupply on an annual basis; high food costs, in Queensland, areas greater than 2000kms away from Brisbane can expect to pay at least 30% more for food and 38.2% more for fruit, vegetables and legumes; limited food access, people living in Cape York experience limited resources and support to access healthy foods, such as adequate household infrastructure including working fridges, stoves, food preparation equipment and storage facilities to prepare healthy meals and keep food safe; low education, approximately 43% of persons over 15 years in Cape York did not complete year 10 or equivalent; high unemployment, only 60% of Aboriginal and Torres Strait Islander people aged over 15 years in Cape York are eligible for employment with very few ‘real’ jobs available; low income, the average personal income in Cape York is approximately 60% of the Australian average; high proportions of young people having children, in far north Queensland more than 25% of Aboriginal mothers are less than 20 years of age compared to less than 5% of non-Aboriginal mothers; overcrowded housing, approximately 27% of Aboriginal and Torres Strait Islander people in Cape York live in overcrowded conditions; and extraordinary rates of high risk behaviours, from 1999-2001 greater than 70% of people over 15 years of age in Cape York were smokers compared to 16% of people over 18 years old in the rest of Queensland. These unique challenges required special consideration in the remodelling of program content and structure as well as program delivery for Need for Feed programs in Cape York.

Qualitative feedback from the programs thus far has indicated high satisfaction with all communities requesting to have the program run again in the future. Community elders have specifically acknowledged the importance of the sense of pride gained when participants are able to feed their community with the food they have prepared. As a result of the programs, a number of communities have requested further services and support, such as assistance with healthy breakfast and lunch programs. The Need for Feed programs delivered across Cape York have proven to be a great opportunity to strengthen relationships between service providers and community as well as to offer service providers further insight into community needs.

Conclusion
The delivery of Need for Feed programs in Cape York demonstrates a successful partnership approach to delivering health education programs in remote Indigenous communities that meet community needs. The development of a productive partnership between lead organisations for the delivery of the programs ensued positive community level impacts, including: increased community capacity, strengthened relationships between local community members and service providers; improved school retention rates; and strengthened intersectoral collaboration.

This partnership models a translational research framework where communication has been fostered between community and researchers to encourage the development of health education tools that meet community needs. As a result of regularly sharing learnings from practical applications of programs with researchers, intervention methods have been continuously improved to facilitate transfer of culturally appropriate health information at the community level. Regular communication between stakeholders has proved fundamental to aligning organisational objectives, overcoming challenges and building strong partnerships.

We propose that using a partnership approach, modelling a translational research framework that fosters open communication amongst stakeholders can provide culturally appropriate and effective health education programs that meet the diverse needs of remote Indigenous communities. We
therefore recommend that future top-down style health education initiatives consider accommodating this flexibility to ensure programs offered to remote Indigenous communities meet community needs.

References
2. Contribution of chronic disease to the gap in mortality between Aboriginal and Torres Strait Islander people and other Australians. Australian Institute of Health and Welfare.