

Cost-Benefit Analysis of the Children's Ground Approach

Date of Report: November 2021

Contents

Summary	1
Methodology	2
Appendix A: Government Expenditure Categories	6
Appendix B: Cost by Government Expenditure Type	9
Appendix C: Benefit-Cost Methodology	10



Summary

This report provides cost-benefit analysis (CBA) of the Children's Ground Approach and quantifies the net economic benefits. The Children's Ground Approach is comprehensive, long-term engagement and sustained investment into children's and their families' where they live to create life long sustainable opportunities and wellbeing. It is a 25-year program, designed to directly tackle inter-generational disadvantage by focussing on a new generation of children, empowering them and their families. It is led by First Nations people as a First Nations designed approach.

Children's Ground's approach directly invests in a child's education and health with the long-term view to prepare children for educational and employment opportunities when they become adults. It seeks to build social and economic capital in communities and engage communities and families in the governance and implementation of the model, creating ownership of outcomes.

The five service areas (learning, family health, economic development, community development and creative and cultural development and wellbeing) together respond to the social cultural and economic determinants for learning, health and lifelong wellbeing.

The cost-benefit analysis finds that there is substantial economic benefit flowing from reducing Indigenous disadvantage using the Children's Ground Approach. There are significant projected savings in government expenditure if disadvantage was reduced. In present value terms, the Commonwealth and Northern Territory governments would save over \$362,200 per participant if the Children's Ground Approach was successful over 25 years. There are also significant projected net economic benefits flowing from the Children's Ground Approach.

The estimated Net Present Value (NPV) the Children's Ground approach would generate is \$649,100 per participant, which includes the savings to Government (\$475,800) and estimated increase in participants' incomes due to increased employment of \$ 173,300¹. This ensures that the CBA comprehensively accounts for the benefits of avoided government expenditure and income received by the participants. This translates to a benefit-cost ratio (BCR) of 5.7.

Benefit: Cost Ratio (NPV over 25 years in 2021 dollars)

Benefits per participant	\$649,100
Cost (CG investment)	\$113,400
Benefit: Cost Ratio	5.7

Summary of savings by government expenditure area (\$)

NPV over 25 years in 2021 dollars

Early Child Development, Education & Training	\$89,400
Healthy Lives	\$126,000
Economic Participation	\$21,700
Home Environment	\$59,900
Safe and Supportive Communities	\$178,800
Total by expenditure area	\$475,800
Less CG investment	\$113,400
Saving to Government	\$362,400

Note: Numbers may not total due to rounding.

1. Employment increase is included from ages 18-25

Methodology

This report quantifies costs and benefits using an 'avoidable cost' framework as recommended by the Productivity Commission,² which estimates the opportunity costs of resources that could be used in alternative programs. An advantage of this framework is that it provides estimates to inform policy-makers on potential savings from reducing avoidable costs, rather than more contestable estimates of the costs of disadvantage.

The benefits are quantified as avoidable government expenditures, calculated as the difference between the Children's Ground impact which aims to reduce the gap in educational, health, social and economic outcomes from the counterfactual (NT Indigenous) to the level of the 'average' Australian (NT Non-Indigenous). Estimates for the NT Indigenous are an appropriate proxy for Children's Ground's key client groups. Using the NT non-Indigenous expenditure estimates for the 'average' Australian reflects the additional service delivery costs of the NT.

The analysis uses estimates of government expenditure from the Productivity Commission 2017 Indigenous Expenditure Report (PCIER).³ The cost (or government expenditure)⁴ categories follow the Productivity Commission cost classifications as follows:

- Early Child Development (child care and preschool), Education (school, university) and Training (VET/ TAFE)
- Healthy Lives (hospital, mental health, public and community health services, pharmaceuticals, medical aids and appliances)
- Economic Participation (labour/employment services and social security support)
- Home Environment (social housing, private market assistance, homelessness)
- Safe and Supportive Communities (police/ corrections/justice, child protection, family and youth services and support for people with a disability).

The data is disaggregated by Commonwealth and NT funding source and program areas, which allows identification of how a specific government stakeholder might be affected by Children's Ground activities.

Reduction in avoidable costs (government services expenditure) is a proxy for improvement in a participant's wellbeing as it indicates the person is in less need of those government services (for example, improved underlying health status leading to less use of health services). However, caution should be used in using government expenditure data as a proxy for need or demand as it is a measure of supply, which can include undersupply which often occurs in regional areas, and/or inefficient supply (technical and allocative⁵).

Expenditure data

The PCIER estimates of government expenditure are used as expenditure data is disaggregated into 'intensity of use' (reflects how frequently the service is used - i.e. volume related) and 'cost of provision' components (reflects additional costs of servicing due to remote location e.g. freight, diseconomies of scale, or providing culturally-sensitive service e.g. Indigenous liaison officers).⁶ This CBA only considers intensity of use component as the cost of provision component is unlikely to be affected by Children's Ground's activities.

Expenditure is estimated on a per person basis.⁷ Where expenditure data relates to a specific service cohort (e.g. primary education and primary school students), unit costs are derived using total PCIER expenditure and relevant service population (FTE enrolments in primary school). Where PCIER expenditure is not easily attributable to specific service cohorts such as police, housing, health expenditure,⁸ PCIER per person expenditure is used.

There is a limit to what indicators a framework can capture. Non-quantifiable outcomes such as changes in the level of cultural and racial acceptance or discrimination, feeling safe in your community or other indicators of wellbeing cannot be captured in this framework. While some outcomes may be construed, indicators may not adequately capture change in wellbeing or psychological variables.

2. The Productivity Commission undertook a comprehensive review of the literature on Australian disadvantage (McLachlan et al. 2013), which investigated competing methodologies of quantifying the economic impact of deep and persistent disadvantage, and recommended the avoidable cost framework as the most appropriate because it estimates the realistic reduction of disadvantage rather than assuming disadvantage will be eliminated altogether

3. <https://www.pc.gov.au/research/ongoing/indigenous-expenditure-report/2017>

4. Categories are linked to Government Purpose Classification (GPC) codes as the PCIER adopts the expenses definitions used by the ABS in the Government Finance Statistics (GFS) collection.

5. For example, an under-provision in some types health services (e.g. community mental health prevention, psychology) may increase use of acute services elsewhere (mental health unit stays, ED admissions, etc.).

6. Some elements of cost of provision would be applied to non-Indigenous services, particularly location related and full exclusion may underestimate the cost savings to government. Cost of provision ranges between 5-15% of total service costs different service areas for NT Indigenous expenditure.

7. per person (using relevant NT population cohort- i.e., NT Indigenous and NT Non-Indigenous)

8. Hospital expenditure is not clearly targeted to specific age groups. Similarly for community and public health services - refer Appendix A for descriptions of expenditure components.

Children's Ground Approach and Investment Costs

Children's Ground investment costs include consistent support for children's early development and learning (stage one of CG Approach), and early stage primary school learning (stage two) The modelling covers delivery to four communities (approx. 1000 participants). The involvement of families and community is an integral part of the Children's Ground support model. The principles of Children Ground are:

Iwenheke apeke unte lyernpenye unte anthetyeke

Expect the best and deliver the best.

This is what our kids and families deserve.

Akweke anthurre mapenge urrke arne mpwaremele urrkapetyeke

Start early with the little ones.

This is when their brains are developing, when good health and wellbeing is so important. If we start early, we have the best chance for getting our kids on the right track.

Akweke itnekenge akwete anetyeke itnenhenhe amangkelhe-ilenhemele

Stay with the children and grow with them until they are big.

It will take 25 years to see the changes we want to make. We want to follow the children we are working with now every step of the way and make sure they have every opportunity made available to them.

Tyerrtye ingkerrenyekenge urrkapetyeke

Work with everyone.

It is our aim to work with every child and family in our communities. If all families are supported and included, this will strengthen the whole community.

Mwarrentye arle arne mpwareme renhe tnaketyeke

Use and celebrate people's ability.

We celebrate people's abilities and their capacity to contribute, whether they are artists, translators, authors, healers, teachers or advisors. There is a wealth of talent and knowledge in our communities. We see the ability in people, not the deficits.

Arne ingkerrenyek anyentelhe iletyeke: tyerretye ngwenhe mwerre anetyeke, akaltye irremele, tyerrtye ngwenge artweye mapenge

Connect everything – education, health, culture, identity and economic wellbeing.

They are all connected, in the way that Aboriginal lore and society is connected.

Arne mpwaretyeke arrurle arle mpwarewarre tyarte ante nthakenhe arle lyete arne mpwarewarreme arteke

Always think about old ways and new ways of doing things.

You have to know your history to go forward – so we never forget the old ways – and we integrate new knowledge to make sure we are delivering the very best. This is innovation.

Anwenehe Ampe-kenhe Ahelhele iwerre arratye alhetyeke akwete community-ele arlike apentetyeke

We are led by the children, their families and community.

We are the directors, designers, deliverers and evaluators.

Ingkerrenyek apmerenye apurte-irreme apmerenge

Whole of community in community.

We are delivering where people live, building upon the social, cultural and economic capital for the whole community. We are making our communities places where kids are safe, with things to do, learn and be involved with, where they are happy and we as families are proud.

Arntarnte aretyeke tyerrtye mape ante iterrentye anwerne-kenhe nthenhele apeke anwerne warrke-irremele.

Culturally safe.

Look after our people wherever we are and wherever we work. Respect our way of doing things; our cultural practices and knowledge.

The main platforms of the approach are described below.

Learning & Wellbeing: Children have the best of both cultures in First Language and culture and in English, with both First Nations and Western trained educational staff from early childhood through to the end of primary.

Family Health & Wellbeing: Community and preventative health focusing on both individual and whole of community health in areas of: family health, maternal and child health, social and emotional wellbeing, environmental health and nutrition. First cultural health and western health practice are engaged. A key focus is health literacy, agency, mental health and wellbeing, positive health behaviours, early intervention and preventing chronic health issues. The team creates a bridge between the community and mainstream services supporting improved health engagement, compliance, access and efficient and effective health care. Providing health promotion in community, where people live, in their first language and within the reality of their social and cultural context improves individual and community health empowerment and health behaviours.

Community Development & Wellbeing: This is driven by placed based (in-community) design and delivery, and cultural leadership in governance with senior custodians and cultural leaders. Each community has its own leadership, strengths and a unique vision for the future that is supported. Each community leads their own community plans for the places they live.

Economic Development & Wellbeing: Local employment and enterprise development as well as financial and consumer literacy.

The total annual cost for the Children's Ground Mpartnwe approach is \$12.25m (\$2021). Children's Ground activities, particularly early learning and health and well-being, would substitute current government services available to Children's Ground participants. To recognise this in the CBA, approx. 40% of current early childhood and 35% of health promotion⁹ government per person expenditure in the NT is assumed to contribute to the CG investment per participant. This translates to \$3.23m of current government expenditure that would form part of the \$12.25m total annual cost of Children Ground Mpartnwe, indicating an annual investment cost to government of \$9.02m).

Table 1: Annual costs and contributions for Children's Ground Mpartnwe by program stream, \$2021, (\$mill)

Program stream (\$mill)	Annual Program Cost	Government expenditure contribution	Annual Investment cost to Government
Learning & Wellbeing	\$6.92	\$3.06	\$3.86
Health & Wellbeing	\$2.87	\$0.17	\$2.70
Community Development	\$1.75		
Economic Development	\$0.71		
Total	\$12.25	\$3.23	\$9.03

The per participant investment changes as participants progress across the 25 years.

Table 2: Per participant investment \$2021

Years	Estimated no. of participants	Per participant Investment (2021\$)
0-12 years	340	\$13,160
13-17 years	230	\$9,680
18-25 years	500	\$11,110
Total	1,070	\$11,450*

* Non age-weighted average.

⁹ Estimated government expenditure directed to the Children's Ground approach for early childhood education and care (childcare and pre-school services) is \$9,050 per child for the ages 0-4 years, \$8,530 per child aged 5-12 years and health promotion is \$230 per person for 0-25 years (expenditure indexed to \$2021). This translates to \$3.25m of current government expenditure that would form part of the \$12.25m total annual cost of Children Ground Mpartnwe.

Children's Ground activities, particularly early learning and health and well-being, would substitute existing current government services available to Children's Ground participants. To recognise this in the CBA, approx. 40% of current early childhood and 35% of health promotion¹⁰ government expenditure in the NT is the assumed to contribute to the CG investment per participant.

Dollar Year

The dollar year of 2015-16 is used in the detailed calculations as it was the most recent year of expenditure data available for all expenditure groups in the source (PCIER 2017). Summary totals are adjusted to 2021 dollars for the report.

Discount rate

In CBA, the discount rate reflects the long term social opportunity cost of capital (i.e. for society collectively, including public and private sectors). In financial appraisal, the discount rate typically reflects the cost of capital to the entity undertaking the proposal – in some cases, it may reflect the required rate of return for the project.¹¹

The discount rate has been subject to debate due to significantly lower interest rates¹² (the benchmark used in the last 10 years of 7% was based on the long-term average of the marginal rate of return on private capital investments which at the time were close to 8.9%).¹³ The Grattan Institute suggest a social return rate of 3.5% in 2018¹⁴ (based on interest rates falling to 0.8% which should be reflected in lower discount rates). In April 2021, the Reserve Bank of Australia official cash rate was 0.1%.

Author and Acknowledgements

The report was completed by Julia Mitchell and builds on a Benefit-Costs analysis completed by Arthur Ha, Barefoot Economic Services¹⁵ for Children's Ground in 2014.

Julia Mitchell is an economist with 30 years experience in the private, NGO, university and public sector focusing on resource allocation modelling and forecasting, economic evaluation for education and human services relating to first nations people and communities. She is currently the Director of the Non-Government Schools Unit at the NSW Department of Education.

Julia has worked for the NSW Department of Education, NSW Treasury, Flinders University Centre for Remote Health, NPY Women's Council, Central Land Council and Coopers & Lybrand (now part of PWC). Julia has volunteered for Children's Ground since its early days including advice on data monitoring, evaluation systems and strategy.

Julia has been member of the Technical Advisory Group, National Resourcing Schools Board, Direct Measure of Capacity to Contribute, NSW Treasury Gateway Review Panels as well as various committee roles in the community sector. Julia has a Master of Economics (Soc Sc) from University of Sydney, 2002 and a Bachelor of Arts (Accounting) University of South Australia, 1989.

10. Estimated government expenditure directed to the Children's Ground approach for early childhood education and care (childcare and pre-school services) is \$9,050 per child for the ages 0-4 years, \$8,530 per child aged 5-12 years and health promotion is \$230 per person for 0-25 years (expenditure indexed to \$2021). This translates to \$3.25m of current government expenditure that would form part of the \$12.25m total annual cost of Children's Ground Mpartnwe.

11. A CBA uses real discount rates, while a Financial Appraisal uses nominal discount rates to reflect project specific risk, whereas the social discount rate only reflects unavoidable systematic risk in CBA.

12. https://www.apf.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/FlagPost/2018/October/Discount-rates

13. Real rates of return to capital in Australia by decade were 11.4% (1960s), 8.5% (1970s), 6.9% (1980s), 7.7% (1990s) and 11.7% (2000-2007). See Productivity Commission (2010) *Valuing the Future*, Table 3.2, and see discussion of long term average of 8.9%-8.6%.

14. See Grattan Institute, 2018, *Unfreezing Discount Rates*, p.20. The range is 3.5% (low systematic risk) to 5% (higher systematic risk) noting there is low systematic risk for social services projects.

15. Arthur Ha, Barefoot Economic Services, (2014 unpublished) Benefit-Cost Analysis Of Children's Ground's Approach: Phase Iv Report

Appendix A:

Government Expenditure Categories

The following table details the government expenditure categories, description of components and the 2015-16 per service population or per person cost, in 2015-16 dollars.

Expenditure	Description	Costs (2015-16 dollars)		
Early Childhood Development (child care and preschool); Education (school, university) and Training				
Preschool education (GPC ¹⁶ 0431)	Outlays on administration, inspection, support, operation, etc. of programs for children up to 5 years delivered in a school-type environment designed to bridge the gap between home and school atmosphere. Includes special education. Excludes play centres, crèches, day-care centres, etc.' where the main function is not to prepare children for schooling, rather to assist working mothers, one parent families and other families in need (GPC 0621)		NT Indigenous	NT Non-Indigenous
		Preschool education (GPC 0431)		
		Cwlth	8,837	0
		NT	9,562	4,495
		Total	18,399	4,495
Child care services (GPC 0621.1)	Child care services and services for children which are developmental in nature. Includes outlays on: long-day care centres, family-day care, occasional care/other centres and outside school hours care; and, subsidies for child-care assistance and child-care cash rebate.		NT Indigenous	NT Non-Indigenous
		Child care services		
		Cwlth	1,333	10,767
		NT	1,824	2,538
		Total	3,157	13,305
Primary education (GPC 0411)	Outlays on administration, inspection, support, operation on educational programs providing a sound knowledge of reading, writing, mathematics, elementary knowledge of other subjects for children aged 5-7 until 10-12. Includes special education. Excludes transportation of students (GPC 044) and school medical and dental programs (GPC 0550).		NT Indigenous	NT Non-Indigenous
		Primary education		
		Cwlth	0	0
		NT	20,237	15,584
		Total	20,237	15,584
Secondary education (GPC 0412)	Outlays on administration, inspection, support, operation on educational programs that extend on a more subject-oriented pattern for 4-6 years. Some vocational and technical training might occur particularly in the final years. Excludes transportation of students (GPC 044) and school medical and dental programs (GPC 0550).		NT Indigenous	NT Non-Indigenous
		Secondary education		
		Cwlth	1,391	0
		NT	24,549	18,622
		Total	25,940	18,622
University education (GPC 0421)	Outlays on administration, inspection, support, operation, etc. of educational programs leading to a university first degree, post-graduate degree or other higher qualifications. Entry generally requires matriculation at secondary level or equivalent. Excludes transportation of students (GPC 044).		NT Indigenous	NT Non-Indigenous
		University education		
		Cwlth	14,554	8,819
		NT	878	1,135
		Total	15,432	9,954
TAFE (GPC 0422) VET (GPC 1331)	TAFE: Outlays on administration, inspection, support, operation, etc. of educational programs in music, fine arts, design and courses designed to meet requirements of industry/commerce and non-vocational courses offered by colleges of technical and further education. Entry may not require matriculation at secondary level or equivalent. VET: Outlays on administration, inspection, support, operation, etc. of training programs such as apprenticeship schemes designed to facilitate workforce entry of people currently not employed or in need of retraining. Excludes transportation of students (GPC 044).		NT Indigenous	NT Non-Indigenous
		TAFE and VET		
		Cwlth	2,761	1,429
		NT	8,955	4,526
		Total	11,715	5,955

16. ABS Government Purpose Classification (GPC) closely follows the United Nations 'Classification of the Functions of Government' (COFOG), which classifies government transactions (current expenses, capital transfers/formation and government lending) in terms of the policy purposes for which they are made. It aims to provide the socio-economic effects of government transactions, and is useful for identifying trends in particular purpose outlays. The structure is three level- Major Groups that reflect the broad objectives of government; Groups and Subgroups detail the means by which broad objectives are achieved. Purposes fall under these broad headings: General government services; Community and social services; Economic services; Other purposes.

Expenditure	Description	Costs (2015-16 dollars)		
Healthy Lives				
Hospital services (incl. mental health institutions)	Outlays on all activities for (GPC 0511) admitted patient services acute care hospitals, free-standing hospices, alcohol and drug treatment centres, and same-day establishments (except activities involving health research/formal health education).		NT Indigenous	NT Non-Indigenous
GPC 0511, 0512, 0520	Non-admitted patient services (GPC 0512): accident and emergency, outpatient clinics, dental clinics, outreach services, community health and other services provided by acute care institutions not included in admitted patient services in acute care institutions. Excludes health research (GPC 570)	Hospital services		
	Mental health institutions (GPC 0520): psychiatric hospitals, psycho-geriatric nursing homes.	Cwlth	20	53
		NT	6,258	3,202
		Total	6,278	3,255
Public and community health	Outlays on: public health services (GPC 550) population health and preventative health programs; community mental health services (GPC 541) specialised mental health programs in a community setting; patient transport (GPC 542); other community health services (GPC 0549.2-.4): domiciliary nursing; well-baby clinics, dental health, home nursing not delivered as part of welfare oriented programs, services for particular community groups such as ATSI, family planning, alcohol/drug rehabilitation programs not involving admission, and other health services provided in a community setting.		NT Indigenous	NT Non-Indigenous
GPC 0550, 0541, 0542, 0549.2, 0549.3, 0549.4		Public and community health services		
		Cwlth	3,276	242
		NT	2,378	973
		Total	5,654	1,215
Health care subsidies and support	Outlays on: other community health services (0549.1) Cwlth subsidies for private medical, dental practitioners and optometrists through Medicare and other programs; other health administration (0590.1) health affairs and services not assigned to the preceding subgroups. Includes health insurance schemes designed to cover all or part of the costs of health care, administration of Medicare by the Health Insurance Commission, and subsidies for private health insurance.		NT Indigenous	NT Non-Indigenous
GPC 0549.1 and 0590.1		Health care subsidies and support		
		Cwlth	946	1,488
		NT	123	209
		Total	1,069	1,696
Economic Participation				
Labour and employment services (GPC 1339 and 1390)	Outlays on: other labour and employment affairs (GPC 1339) on administration, support, regulation, research, etc. of labour and employment affair; and other economic affairs nec (GPC 1390) administration, regulation, promotion, research, operation, etc. of distributive trades (ie. retail).		NT Indigenous	NT Non-Indigenous
		Labour and employment services		
		Cwlth	613	250
		NT	379	491
		Total	992	741
Social security support (GPC 0610)	Outlays on administration, support operation etc of social security that can be separated from provision of welfare services. Social security includes: sickness benefits, benefits to ex-service personnel and dependents, permanent disability, old age, widows, deserted wives, divorcees, and orphans benefits, unemployment benefits, sole parents benefits, other social security, and other social security affairs, including administration.		NT Indigenous	NT Non-Indigenous
		Social security support		
		Cwlth	7,632	2,513
		NT	-	-
		Total	7,632	2,513
Home Environment				
Housing (GPC 0711.1, 0711.2, 0711.3, 0621.4 and 0629.1)	Housing (GPC 0711):Outlays on administration, provision, support, operation, etc of housing affairs and services -includes provision housing for general public/people with special needs, land acquisition for dwelling construction, administration of rent controls and eligibility standards for public housing, conditional financial assistance for construction of homes, rental subsidies/allowances, mortgage financing of homes for ex-service personnel and other low cost mortgage financing, producing/disseminating information about housing, and research into and experimental development of housing standards/design. Homeless persons assistance for young people (GPC 0621.4):Outlays on Special Homelessness services (SHS) for youth; services delivered by residential institutions such as centres, villages, shelters, hostels, orphanages, youth refuges, juvenile hostels, and child/juvenile counselling. Homeless person's assistance for people other than youth (GPC 0629.1):Outlays on: homeless persons' assistance, e.g. SHS for adults, information, advice and referral services, prisoners' aid, care of refugees and women's shelters.		NT Indigenous	NT Non-Indigenous
		Housing		
		Cwlth	192	107
		NT	3,460	296
		Total	3,651	403

Expenditure	Description	Costs (2015-16 dollars)		
Safe and Supportive Communities				
Public order and safety	Police Services (GPC 0311): Outlays on all activities concerned with the prevention of illegal activities and apprehension of criminals. Includes traffic control; alien registration; internal security forces; police colleges/training; and police laboratories.		NT Indigenous	NT Non- Indigenous
(GPC 0311, 0320, 0330, 0312 and 0390)	Law courts and legal services (GPC 0320): Outlays on legal representation/advice on behalf of the government and others. Includes costs of crown prosecutions, trusteeship services, law reform, registration of legal titles to property, births, deaths and marriages. Excludes industrial law (GPC 1339) and tribunals/appeals boards classified to specific categories. Prisons and corrective services (GPC 0330): Secure detention for convicted persons, alleged offenders and non-institutional corrective services, prisons, prison farms, remand centres, asylums for the criminally insane, places of secure detention for juveniles, child offenders and children on remand for alleged offences, youth training centres, juvenile corrective institutions and community-based correction activities, such as parole/probation services, community service orders and attendance centres. Fire protection services (GPC 0312): Outlays on volunteer fire brigades, fire brigade boards; and roadside clearing operations Other public order & safety nec (GPC 0390): Outlays on programs relating to: control of animals (registration, pounds, control of stray cattle), life-saving/beach patrols, maintenance of state emergency services (e.g. through local government contributions) and operations that cannot be allocated to disaster relief, to welfare services nec (GPC 0629) or natural disaster relief (GPC 1430), human rights organisations and community relations.	Public order and safety		
		Cwlth	1,327	173
		NT	6,921	1,143
		Total	8,248	1,316
Welfare services for people with a disability	Respite care, development care, substitute care, domestic and personal assistance, services delivered by residential institutions, transport, supported employment and rehabilitation, community centres, day care centres, nursing homes for people with a disability, and financial assistance not primarily related to inadequate earning capacity.		NT Indigenous	NT Non- Indigenous
(GPC 0623)		Welfare services for people with a disability		
		Cwlth	7	13
		NT	612	136
		Total	619	149
Child protection and out-of-home care services	Child, youth and family welfare services which are protective (children) in nature. Includes outlays on substitute care (short term/permanent); protective investigation, supervision, statutory guardianship management, protective accommodation; and, assessment and evaluation of offenders by non-judicial bodies		NT Indigenous	NT Non- Indigenous
(GPC 0621.2)		Child protection and out-of-home care services		
		Cwlth	-	-
		NT	1,705	52
		Total	1,705	52
Family and youth services	Child, youth and family welfare services which are developmental (youth), and supportive (families) in nature. Includes outlays on advice/referral, development of family/household management skills; SHS for youth; services other than accommodation delivered by residential institutions, such as centres, shelters, hostels, youth refuges, family group homes; and marriage and child/juvenile counselling.		NT Indigenous	NT Non- Indigenous
(GPC 0621.3)		Family and youth services (GPC 0621.3)		
		Cwlth	-	-
		NT	216	156
		Total	216	156
Other welfare	Other welfare services nec (GPC 0629.2) includes outlays on information, advice/referral services prisoners' aid, care of refugees, ATSI welfare services, women's shelters, general casework services, multi-client services (food /clothing) for personal/family emergencies, relief of victims of disasters, departments/program units which serve the welfare services system, financial assistance (other than for the aged and the disabled) not primarily related to inadequate earning capacity. Social security and welfare nec (GPC 0690) includes outlays on administration, support etc. of services that cannot be assigned to the two preceding groups of major group 06.		NT Indigenous	NT Non- Indigenous
(GPC 0629.2 and 0690)		Other welfare (GPC 0629.2 and 0690)		
		Cwlth	-	130
		NT	669	140
		Total	329	271

Appendix B: Cost by Government Expenditure Type

The table below provides the present value expenditure for the counterfactual, estimated impact of Children's Ground, and savings, for 0-30 years by government level (Commonwealth, NT).

	NT Indigenous Counterfactual (CF Indig)	NT Non-Indigenous (CG Impact)	Savings
Early Child Development, and Education and Training			
Cwlth	83,000	69,900	13,100
NT	277,400	201,100	76,400
Total	360,400	271,000	89,400
Healthy Lives			
Cwlth	78,200	32,900	45,300
NT	161,500	80,800	80,700
Total	239,600	113,700	126,000
Economic Participation			
Cwlth	33,300	11,200	22,100
NT	1,500	2,000	-500
Total	34,800	13,100	21,700
Home Environment			
Cwlth	3,500	2,000	1,600
NT	63,800	5,500	58,300
Total	67,300	7,400	59,900
Safe and Supportive Communities			
Cwlth	36,900	5,800	31,100
NT	177,500	29,800	147,700
Total	214,400	35,600	178,800
Total all expenditure			
Cwlth	234,900	121,700	113,200
NT	681,700	319,100	362,600
Total	916,600	440,900	475,800

Appendix C: Benefit-Cost Methodology

The counterfactual net benefit (NB), if Children's Ground (CG) did not implement its programs, quantifies the costs to government of maintaining current levels of expenditures, and also includes the current level of income that CG's participants receive.¹⁷ This follows Deloitte's Access Economics in using average weekly earnings for Indigenous and non-Indigenous individuals to calculate annual income.¹⁸

This ensures the counterfactual comprehensively accounts for the benefits (avoided government expenditure) and costs (income received under counterfactual). The counterfactual can be summarised in a net benefit calculation:

$$NB_t^s = Y_t^s - C_t^s \quad \text{Equation 1}$$

Where, NB_t^s is the net benefits, Y_t^s is the income, and C_t^s is the costs (mostly government expenditure), and superscript (s denoting the counterfactual) for year t. The net benefit is calculated for each year from t=0...., 30 (i.e. the net benefits are calculated for 30 years).

To derive the net benefit of CG's approach, the counterfactual net benefit is compared to the CG's net benefit. This provides the benefit-cost from the impact of CG's activities and approach. The benefits from the CG scenarios are the income to the participants. The costs are the new level of government expenditure and the investment by CG per participant. Similarly to equation 1, net benefit is:

$$NB_t^0 = Y_t^0 - C_t^0 \quad \text{Equation 2}$$

Where, superscript 0 denotes the CG impact.

Equation 3 estimates the benefit of assuming CG's programs will reduce government expenditure. Using equations 1 and 2, the cost-benefit can be calculated as:

$$BC_t^s = NB_t^0 - NB_t^s \quad \text{Equation 3}$$

Where, BC_t^s is the benefit-cost at year t for the counterfactual. Net benefits are calculated on an annual basis and discounted over time as follows:

$$BC^s = \sum_{t=0}^{30} \frac{BC_t^s}{(1+r)^t} \quad \text{Equation 4}$$

Where, BC^s is the discounted cost-benefit over 30 years, and r is the discount rate (as noted earlier, this is 3.5%).

Equation 4 is also the net present value of the net benefits over 30 years, that is, the value of Children's Ground's programs in today's dollars. The benefit-cost ratio (i.e. the economic benefit per dollar of cost) can be estimated as follows:

$$BCR^s = \sum_{t=0}^{30} \frac{[(B_t^0 - B_t^s) / (C_t^0 - C_t^s)]}{(1+r)^t} \quad \text{Equation 5}$$

17. Average income estimates for NT Indigenous as the appropriate proxy for Children's Ground's key client groups

18. Deloitte Access Economics 2014.