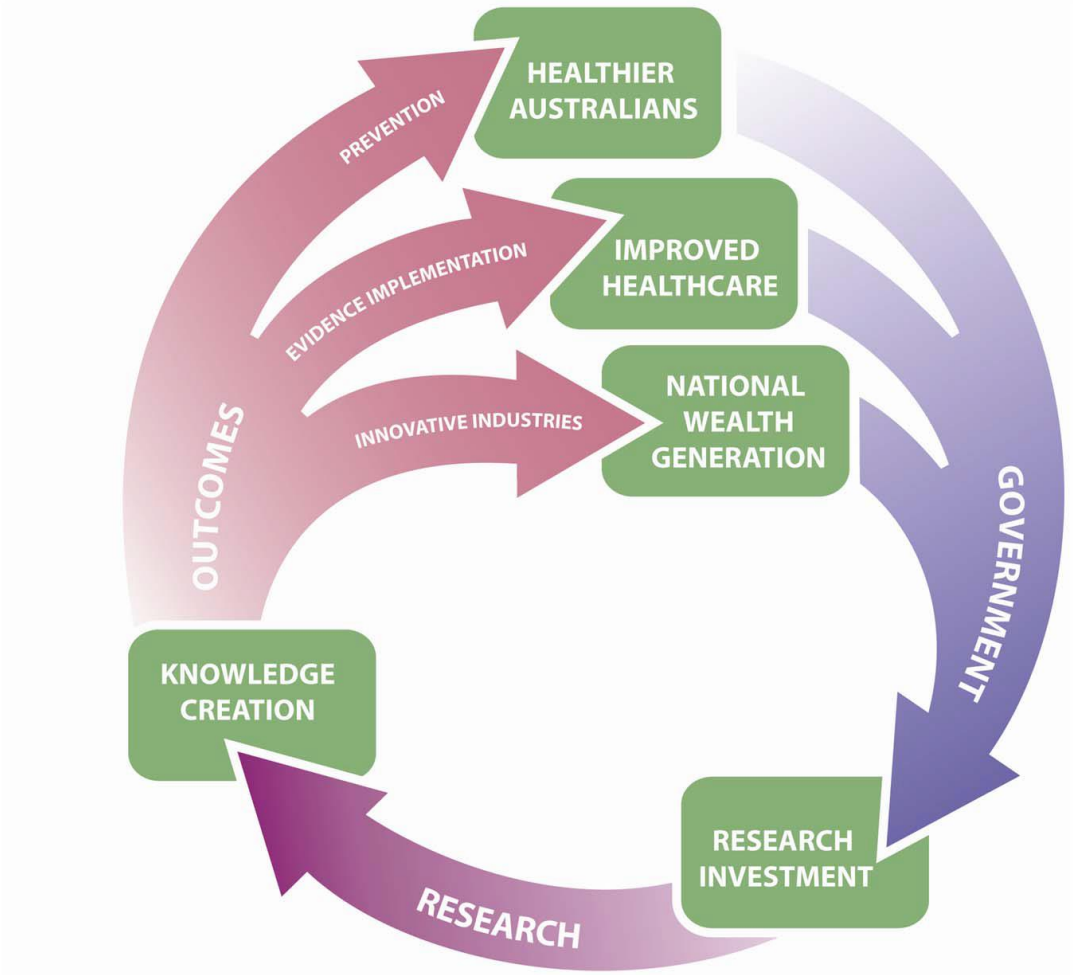
NSW GOVERNMENT | Communities & Justice

Dr Alice Knight

Logic is the beginning of wisdom, not the end of it

Knowledge translation – NHMRCs virtuous cycle

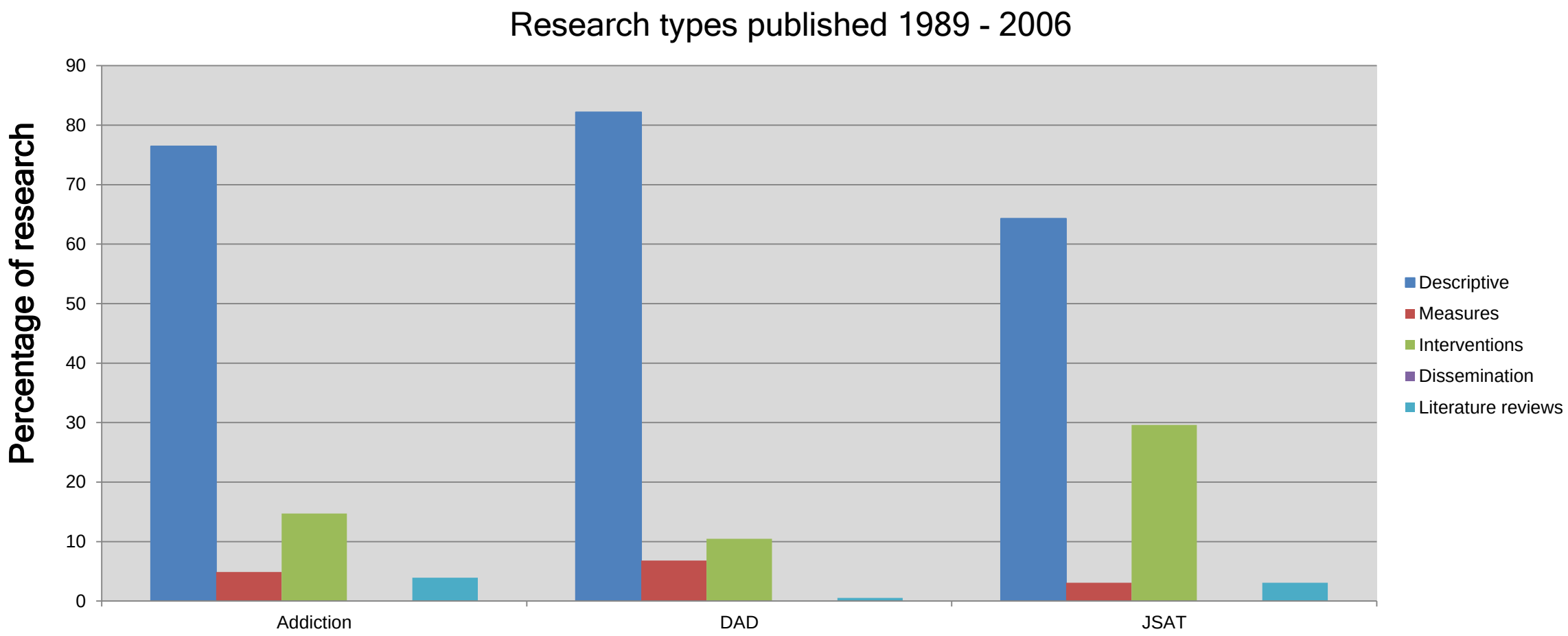


Knowledge translation in real world settings is difficult

- How much research gets translated into public benefit and what's the average time from discovery to benefit?
  - 14% and 17 years; 30% and 7 years; 60% and 3 years; 90% and 1 year

14% and 17 years (Balas & Boren, 2000; Westfall et al, JAMA, 2007)

Usually because there's not much to translate…



Lack of intervention research has led to insufficient evidence

- Indigenous health services
  - Systematic search of electronic databases (1992-2011) in Australia, found 1,311 Indigenous health services studies (McCalman et al. BMC Public Health 2012)
  - 37 (**3%**) evaluated an intervention aiming to improve delivery of health services
  - Of the 37, none used an experimental evaluation design
- Programs for young people engaged in multiple risk behaviour
  - Systematic search of electronic databases (2009-2014) internationally, found 268 studies (Knight et al. ANZJPH, 2016)
  - 13 (**5%**) evaluated an intervention that targeted multiple risk behaviour in young people
  - Of the 13, 6 used a methodologically adequate evaluation design
- Homelessness services for people exiting government services
  - Systematic search of electronic databases (2007-2017) internationally, found 975 studies (Sax Institute [commissioned by FACS], 2017)
  - 145 (**15%**) intervention studies were identified
  - Of the 145, all had methodological limitations that meant the evidence was insufficient to draw accurate conclusions

One potential reason for lack of evidence…

- The majority of programs available for vulnerable populations are implemented by NGOs who are often not funded or resourced to conduct quality evaluation
  - Their priority is day-to-day service delivery, not evaluation

- Often designed without consideration of evaluation requirements, and implemented in a way that inhibits rigorous evaluation
  - E.g. no control/comparison group and limited data collection for quant evaluation

- They typically engage only a small number of participants (i.e. not population level interventions)
  - This prohibits rigorous evaluation

One potential reason for lack of evidence… (cont.)

- Lack of homogeneity in program design and implementation
  - i.e programs in human services sector tend to use different models of intervention that target a different combination of risk behaviours with different combination of program components
- Lack of organisational capacity and capability to undertake evaluation
- Lack of outcome measurement, or not measuring outcomes…more outputs
- And they use different outcomes and outcome measures to measure change

Structural issues that make it even harder

- Misalignment between research and policy cycles – can't expect meaningful outcomes in 6-12mths
- Evaluation/research initiated by funding bodies too late in program design cycle
- Lack of data infrastructure
- Lack of ongoing funding for long-term evaluation/research
- No coordinated governance body with oversight of evidence generating activities in the human services sector - can lead to duplication and inefficiencies

… and yet

- There is increased pressure on NGOs and Government to report/justify funding decisions made in relation to their activities, and

- There is an increased expectation that funding decisions should be based on evidence

Why does program design matter for evaluation and evidence building?

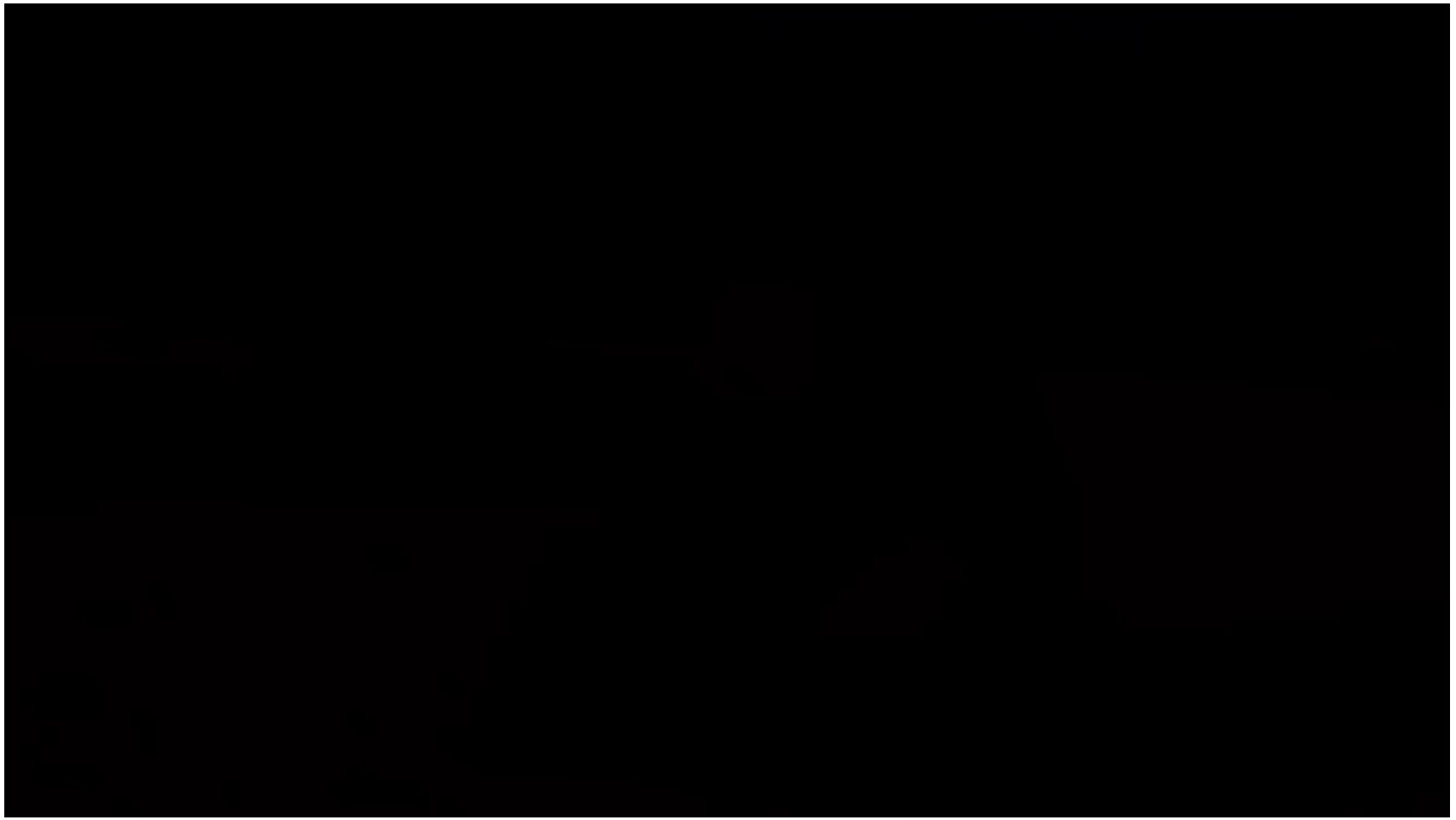
- **Because good evaluation starts with good program design**

- Why? Because the way a programs is designed can limit the ability to:
  - Use rigorous evaluation designs in determination of program effectiveness
  - Pool results in meta-analyses (as a method of increasing existing strength of evidence)
  - Reduce the generalisability of results to other populations

How can we improve the quality and quantity of evaluation?

- By achieving greater consistency and standardisation in how programs are developed and defined
- This will enable:
  1. the measurement of a consistent set of outcomes with consistent set of outcome measures
  2. programs and policy makers to report on programs using shared language and outcome measures
  3. the articulation of a model for the development and evaluation of a far greater number of programs than currently exist – building the evidence-base!
- To guide this planning process, a standardised program logic can be used

Standardised program logic – BackTrack example



Standardised program logic – BackTrack example

a. Areas of need	b. Intervention		c. Mechanisms of change	d. Outcomes (outcome measures)	e. Process measures
	Core components	**Flexible activities**			
- Tenuous engagement with the education system and/or un-, under-employment - Emerging or established involvement in criminal incidents and the criminal justice system; - Risky drug and alcohol use - Low self-esteem and/or emerging mental health issues	1. Engagement	- PawsUp - Youth forum	1. Successfully engaging with participants so they are exposed to a sufficient number of intervention elements 2. Reducing participants' exposure to high-risk peers/family members, at high-risk times (e.g. the weekend) 3. Improving participants' capacity to manage when they are in high-risk situations 4. Improving participants' education and life skills to increase their opportunities for active participation in employment	- **A reduction in crime/severity of crime** (Routinely collected police incident data) - **A reduction in substance misuse** (The Alcohol Use Disorder Identification Test [AUDIT], the Alcohol, Smoking and Substance Involvement Screening Test [ASSIST], the Heaviness of Smoking Index [HSI]) - **A reduction in suicide ideation and/or psychological distress** (a self-reported measure of suicide ideation and the Kessler-6) - **An improvement in school attendance** (a self-reported measure of school attendance cross-checked with school attendance data) - **An improvement in employment** (a self-reported measure of employment status) - **An improvement in resilience** (the Connor-Davidson Resilience Scale)	- The extent to which BackTrack was delivered as planned (program fidelity) - Participant attendance and exposure to the different core components of BackTrack (program dose) - Participant satisfaction with BackTrack - Participant acceptability of BackTrack - Contextual facilitators/barriers to program implementation
	2. Case management	- Legal aid tutorials - Work ready preparation - Contingency planning - Inter-agency liaison			
	3. Diversionary activities	- Supervised events in town on weekends - Interstate travel on weekends to community events (e.g. Dog jump competitions) - Day-to-day attendance at the program			
	4. Personal development, identity, and team identity	- Circle Work - Chilling the brain - Counselling - BackTrack shirts			
	5. Learning and skills	- The BackTrack school - Work experience - Vocational training - Volunteer work experience			

Step 1: Understand the problem the program needs to improve

a. Areas of need	b. Intervention Core components Flexible activities	c. Mechanisms of change	d. Outcomes (outcome measures)	e. Process measures
- Tenuous engagement with the education system and/or un-, under-employment - Emerging or established involvement in criminal incidents and the criminal justice system; - Risky drug and alcohol use - Low self-esteem and/or emerging mental health issues				

Step 2: Identify evidence for what works to improve the identified needs

a. Areas of need	b. Intervention		c. Mechanisms of change	d. Outcomes (outcome measures)	e. Process measures
	Core components	**Flexible activities**			
- Tenuous engagement with the education system and/or un-, under-employment - Emerging or established involvement in criminal incidents and the criminal justice system; - Risky drug and alcohol use - Low self-esteem and/or emerging mental health issues	1. Engagement	- PawsUp - Youth forum			
	2. Case management	- Legal aid tutorials - Work ready preparation - Contingency planning - Inter-agency liaison			
	3. Diversionary activities	- Supervised events in town on weekends - Interstate travel on weekends to community events (e.g. Dog jump competitions) - Day-to-day attendance at the program			
	4. Personal development, identity, and team identity	- Circle Work - Chilling the brain - Counselling - BackTrack shirts			
	5. Learning and skills	- The BackTrack school - Work experience - Vocational training - Volunteer work experience			

Step 3: Develop and clearly define the intervention

a. Areas of need	b. Intervention: Core components	b. Intervention: Flexible activities	c. Mechanisms of change	d. Outcomes (outcome measures)	e. Process measures
- Tenuous engagement with the education system and/or un-, under-employment - Emerging or established involvement in criminal incidents and the criminal justice system; - Risky drug and alcohol use - Low self-esteem and/or emerging mental health issues	1. Engagement	- PawsUp - Youth forum			
	2. Case management	- Legal aid tutorials - Work ready preparation - Contingency planning - Inter-agency liaison			
	3. Diversionary activities	- Supervised events in town on weekends - Interstate travel on weekends to community events (e.g. Dog jump competitions) - Day-to-day attendance at the program			
	4. Personal development, identity, and team identity	- Circle Work - Chilling the brain - Counselling - BackTrack shirts			
	5. Learning and skills	- The BackTrack school - Work experience - Vocational training - Volunteer work experience			

Step 4: Clearly articulate the mechanisms of change

a. Areas of need	b. Intervention		c. Mechanisms of change	d. Outcomes (outcome measures)	e. Process measures
	Core components	**Flexible activities**			
- Tenuous engagement with the education system and/or un-, under-employment - Emerging or established involvement in criminal incidents and the criminal justice system; - Risky drug and alcohol use - Low self-esteem and/or emerging mental health issues	1. Engagement	- PawsUp - Youth forum	1. Successfully engaging with participants so they are exposed to a sufficient number of intervention elements 2. Reducing participants' exposure to high-risk peers/family members, at high-risk times (e.g. the weekend) 3. Improving participants' capacity to manage when they are in high-risk situations 4. Improving participants' education and life skills to increase their opportunities for active participation in employment		
	2. Case management	- Legal aid tutorials - Work ready preparation - Contingency planning - Inter-agency liaison			
	3. Diversionary activities	- Supervised events in town on weekends - Interstate travel on weekends to community events (e.g. Dog jump competitions) - Day-to-day attendance at the program			
	4. Personal development, identity, and team identity	- Circle Work - Chilling the brain - Counselling - BackTrack shirts			
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Step 5: Identify appropriate outcomes and outcome measures that map back to the identified need

a. Areas of need	b. Intervention		c. Mechanisms of change	d. Outcomes (outcome measures)	e. Process measures
	Core components	**Flexible activities**			
- Tenuous engagement with the education system and/or un-, under-employment - Emerging or established involvement in criminal incidents and the criminal justice system; - Risky drug and alcohol use - Low self-esteem and/or emerging mental health issues	1. Engagement	- PawsUp - Youth forum	1. Successfully engaging with participants so they are exposed to a sufficient number of intervention elements 2. Reducing participants' exposure to high-risk peers/family members, at high-risk times (e.g. the weekend) 3. Improving participants' capacity to manage when they are in high-risk situations 4. Improving participants' education and life skills to increase their opportunities for active participation in employment	- **A reduction in crime/severity of crime** (Routinely collected police incident data) - **A reduction in substance misuse** (The Alcohol Use Disorder Identification Test [AUDIT], the Alcohol, Smoking and Substance Involvement Screening Test [ASSIST], the Heaviness of Smoking Index [HSI]) - **A reduction in suicide ideation and/or psychological distress** (a self-reported measure of suicide ideation and the Kessler-6) - **An improvement in school attendance** (a self-reported measure of school attendance cross-checked with school attendance data) - **An improvement in employment** (a self-reported measure of employment status) - **An improvement in resilience** (the Connor-Davidson Resilience Scale)	
	2. Case management	- Legal aid tutorials - Work ready preparation - Contingency planning - Inter-agency liaison			
	3. Diversionary activities	- Supervised events in town on weekends - Interstate travel on weekends to community events (e.g. Dog jump competitions) - Day-to-day attendance at the program			
	4. Personal development, identity, and team identity	- Circle Work - Chilling the brain - Counselling - BackTrack shirts			
	5. Learning and skills	- The BackTrack school - Work experience - Vocational training - Volunteer work experience			

Step 6: Ensure appropriate process measures are captured

a. Areas of need	b. Intervention		c. Mechanisms of change	d. Outcomes (outcome measures)	e. Process measures
	Core components	**Flexible activities**			
- Tenuous engagement with the education system and/or un-, under-employment - Emerging or established involvement in criminal incidents and the criminal justice system; - Risky drug and alcohol use - Low self-esteem and/or emerging mental health issues	1. Engagement	- PawsUp - Youth forum	1. Successfully engaging with participants so they are exposed to a sufficient number of intervention elements 2. Reducing participants' exposure to high-risk peers/family members, at high-risk times (e.g. the weekend) 3. Improving participants' capacity to manage when they are in high-risk situations 4. Improving participants' education and life skills to increase their opportunities for active participation in employment	- **A reduction in crime/severity of crime** (Routinely collected police incident data) - **A reduction in substance misuse** (The Alcohol Use Disorder Identification Test [AUDIT], the Alcohol, Smoking and Substance Involvement Screening Test [ASSIST], the Heaviness of Smoking Index [HSI]) - **A reduction in suicide ideation and/or psychological distress** (a self-reported measure of suicide ideation and the Kessler-6) - **An improvement in school attendance** (a self-reported measure of school attendance cross-checked with school attendance data) - **An improvement in employment** (a self-reported measure of employment status) - **An improvement in resilience** (the Connor-Davidson Resilience Scale)	- The extent to which BackTrack was delivered as planned (program fidelity) - Participant attendance and exposure to the different core components of BackTrack (program dose) - Participant satisfaction with BackTrack - Participant acceptability of BackTrack - Contextual facilitators/barriers to program implementation
	2. Case management	- Legal aid tutorials - Work ready preparation - Contingency planning - Inter-agency liaison			
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Benefits of this standardised program logic approach

- The feasibility of this ‘standardised but flexible’ approach has been tested with BackTrack – now rolled out in at least 8 communities across NSW
- An evaluation of the program in 3 communities found positive results
- As more communities adopt the standardised program framework via standardised program logic approach, it will enable a more rigorous evaluation
- Ultimately leads to better outcomes for young people
- To work well, this work needs to be coordinated across multiple programs/communities. How will this happen?

Government has a role

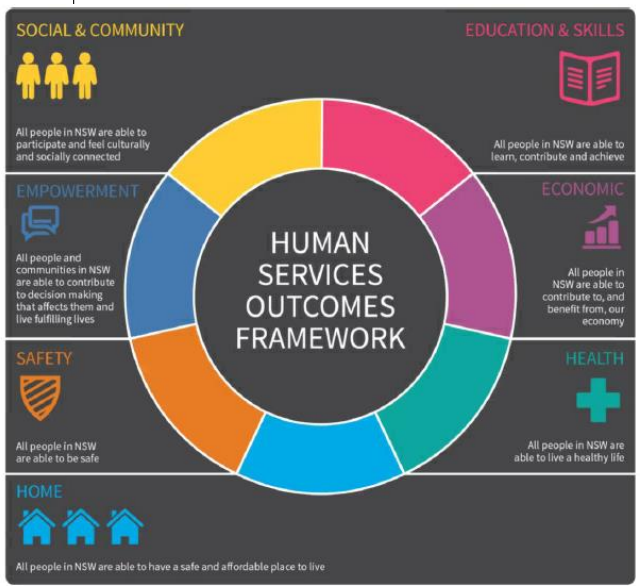
- In Australia alone, it's estimated that government contributes $25.5 billion to NGO sector through directly commissioning services or provision of grants
- The main beneficiaries are programs operating in the Human Services sector
- With increased pressure on NGOs to report/justify funding decisions made in relation to their activities, government as the major funder has a role in supporting NGOs to better design and evaluate their programs
- Government has the ability to coordinate program activity for vulnerable populations across communities and focus program design and evaluation to the greatest areas of need

What's DCJ doing in this space?

- Invested in a team of highly trained evaluation experts to advise and support the design of rigorous evaluation
- Encouraging the collection of a consistent, minimum set of outcome data of all DCJ commissioned/delivered services
- Investing in ICT systems to enable consistent, quality data collection
- Seeking to establish strong governance for evaluation and dedicated resourcing
- Establishing capacity and capability building activities for staff and building communities of practice
- Development of the program logic template and other tools to support Commissioning staff design and commission evidence-based programs
  - Not quite ready for standardisation…. but something to work towards!

Developing program logics to facilitate evidence-based program design

1. PROBLEM	2. EVIDENCE	3. PROGRAM: core components and flexible activities (if applicable)	4. MECHANISMS OF CHANGE	5. OUTPUTS & CLIENT OUTCOMES Describe the specific client outcomes likely to result from this program component as they relate to the NSW Human Services Outcome Framework Domains				6. GOAL
				Immediate outputs and implementation outcomes	Immediate outcomes (outcome measure) *Primarily attributed to the program*	Intermediate outcomes (outcome measure) *Partly attributed to program, beginning of shared attribution*	Long-term outcomes (outcome measure) *Shared attribution across agencies/NGOs*	
Identify the problem areas this program seeks to change. Be as specific as possible *I.e. Describe the population group or cohort, delivery setting, client needs or risk factors experienced by this population group* Example: ~~BackTrack~~ - A program for at-risk youth Young people aged 12 to 25 years who experience co-occurring risk factors such as: - Dis-engagement with the education system and/or un-, under-employment - Emerging or established involvement in criminal incidents and the criminal justice system - Risky drug and alcohol use - Inability to regulate emotions - Low self-esteem and/or emerging mental health issues. - Below average levels of subjective wellbeing	*Summarise the research evidence on the most effective programs, and/or program components, available to change the identified problems. Please start with evidence from published systematic reviews and high quality randomised controlled trials that demonstrate effectiveness. Please also include relevant evaluation reports.* *Note: FACS Library can assist in providing relevant research evidence including literature searches Library@facs.nsw.gov.au* Example: Findings from a systematic review of programs that can effectively intervene to improve outcomes for young people who experience co-occurring risk factors found that the critical program components are: 1) engagement; 2) case management; 3) skills and education; 4) personal development; 5) diversionary activities.	*Based on the identified problems, and what the evidence suggests is the most effective way to intervene to change these problems, describe what your program will look like in terms of core standardised components and the flexible activities attached to each of these components (there is no limit to how many core components or activities you can include)* Example: **Core component 1: Engagement** Flexible activities: - Horse riding - Buddying up with a working dog - Team sport - 'Jam' sessions and informal music activities **Core component 2: Case management** Flexible activities - Legal aid tutorials - Contingency planning - Inter-agency liaison **Core Component 3: Diversionary activities** Flexible activities: - Attending sporting events as a group on the weekend - Camping trips over the weekend - Day-to-day attendance of program during the week **Core Component 4: Personal development** Flexible activities: - One-on-one counselling with program staff if needed - Daily meditation group - Buddying up with a 'graduated' program member for mentoring support **Core component 5: Learning and skills development** Flexible activities: - Work ready preparation - Vocational education or training	*Describe how the program will specifically achieve the desired outcomes via the program activities* Example: - Successfully engaging with participants so they are exposed to sufficient number of intervention components - Improving participants' capacity to regulate their emotions and manage when they are in high-risk situations - Reducing their exposure to high-risk peers/family members, at high-risk times (e.g. the weekend) - Improving participants' education and life skills to increase their opportunities for active participation in employment - Increasing participants' average level of subjective wellbeing improves their chances of sustaining positive outcomes (e.g. employment or reduction in substance use)	Example: - Number/type of specific activities delivered in each program component - The number/type of sessions of the activity delivered in each program site - The number of participants attending each session (for each site) - Fidelity of delivery of Evidence-Based Treatments (EBTs) such as Cognitive Behaviour Therapy or Motivational Interviewing – only applicable for EBTs - Contextual facilitators/barriers to program implementation - Participant experience and satisfaction with the program - Participant acceptability of the program	**Employment** **Education & Skills** **E.g. An improvement in school attendance** (self-reported measure of school attendance cross-checked with school attendance data) **Safety** **Home** **Physical and Mental Health** **E.g. A reduction in substance misuse** (The Alcohol Use Disorder Identification Test [AUDIT], the Alcohol, Smoking and Substance Involvement Screening Test [ASSIST], the Heaviness of Smoking Index [HSI]) **AND/OR** **An improvement in**	**E.g. An improvement in employment** (self-reported measure of employment status or admin data) **E.g. An increase in the number of participants completing year 10 or above at school** (Department of Education school attendance data) **E.g. An increased feeling of safety at home and in community due to resolution of mental health and substance use issues** (self-reported measure of feeling safe at home and in community) **E.g. An increased level of stability where they live** (self-reported measure of stability in the home) **E.g. A reduction in suicide ideation and/or psychological distress** (self-reported measure of suicide ideation and the Kessler-6)	**An increase in the number of participants completing a TAFE course** (Department of Industry TAFE data) **E.g. An improvement in employment** (self-reported measure of employment status or admin data) **E.g. A reduction in drug and alcohol and/or mental health related Emergency Department presentations** (Routinely collected health data) **AND/OR** **An increase in the use of primary health care services** (Routinely collected	**Improved subjective wellbeing** (The Personal Wellbeing Index) 1. How satisfied are you with life in general? How satisfied with ..... 2. Your stan living? 3. Your heal 4. Your achi 5. Your pers relationsh 6. How safe 7. Your com connectio 8. Your futu



Challenges

- Evaluation team at DCJ not involved in program design
- The standardised logic may not work as well in other areas of Human Services sector
- Staff resistance to the idea of standardisation and unwillingness to adapt their programs
  - However, the alternative is likely to be the continuation of the publication of a small number of under-powered evaluations of varying methodological quality

Questions & Comments