ADVANCING TREATMENT OPTIONS FOR TOBACCO CESSATION, PREVENTION AND RELATED ILLNESSES, WITH PARTICULAR REFERENCE TO INDIGENOUS POPULATIONS

Kristin Veronica Carson

Faculty of Health Sciences; Division of Medicine
School of Medicine at The Queen Elizabeth Hospital and
The Basil Hetzel Institute for Translational Health Research
University of Adelaide
South Australia
Australia

A thesis submitted in fulfilment of the requirements for the Degree of

Doctor of Philosophy

June 2015
“Nothing in life is to be feared,

it is only to be understood.

Now is the time to understanding more,

so that we may fear less.”

~ Marie Curie
Table of Contents

Declaration ........................................................................................................................... 9

Acknowledgements ............................................................................................................ 10
  Family and friends ........................................................................................................... 10
  Collaborators, participants and mentors ........................................................................ 11
  Supervisors ....................................................................................................................... 12

Abbreviations ..................................................................................................................... 14

Awards (Total number of awards-finalist positions n=24)............................................. 23

Fellowships, grants and scholarships (Total $1,153,022.20 related to PhD) .............. 27
  Peer-reviewed journal publications (Total Impact Factor (IF) 49.815)........................ 29
  Submitted (n= 2 related to PhD work).......................................................................... 29
  Published (n= 12 related to PhD work) ........................................................................ 29
  Peer-reviewed book chapters (n= 2 related to PhD work)........................................... 31

Presentations: (Total number of PhD presentations n=70) ........................................... 32
  Keynote speaker presentations at conferences: ........................................................... 32
  Invited conference presentations ................................................................................. 32
  Oral conference presentations: .................................................................................... 33
  Poster conference presentations: .................................................................................. 36
  Other (non-conference) ‘keynote’ oral presentations: .................................................. 37
  Other (non-conference) invited oral presentations: ....................................................... 39
  Other oral presentations: .............................................................................................. 41

Membership of committees and working parties associated with the PhD ............... 44

Summary ............................................................................................................................. 46

Chapter 1. Introduction .................................................................................................... 48
  1.1 Smoking related disease burden ............................................................................. 48
    1.1.1 Reductions in population-level smoking: ......................................................... 48
1.1.2 Smoking is difficult to stop: ................................................................. 49
1.1.3 Benefits of quitting: ............................................................................. 49

1.2 Tobacco use among Indigenous populations globally ................................. 49
1.2.1 Tobacco use among Aboriginal and Torres Strait Islander Australians: ...... 50
1.2.2. Smoking related disease burden among Indigenous Australians: .............. 51
1.2.3 Smoking cessation interventions amongst Indigenous populations: .......... 52
1.2.4 Tobacco prevention interventions amongst Indigenous youth: .................... 53
1.2.5 Smoking cessation amongst Indigenous Australians: .............................. 53
1.2.6 Translation of information for policy and practice in the Indigenous setting: .. 55
1.2.7 Methodological issues in Indigenous Australian health research: ............ 55

1.3 What we know works: smoking cessation and current practice in Australia .... 56
1.3.1 Pharmacotherapeutic interventions for smoking cessation: ....................... 56
1.3.2 Smoking cessation interventions for people with lung cancer: ................... 56
1.3.3 Reduced risk of cancer development with quit smoking interventions in later life: ............................................................................................................................... 56

1.4 Inpatient initiation of smoking cessation interventions .................................. 57
1.4.1 The case for varenicline tartrate (Champix): ............................................ 58
1.4.2 Safety concerns for varenicline tartrate: ................................................... 59
1.4.3 Quit smoking counselling services South Australia (SA): .......................... 59

1.5 Training health professionals in smoking cessation interventions ................. 60

Chapter 2. Overview of aims and hypotheses..................................................... 61

Chapter 3. Methods ............................................................................................ 64
3.1 Qualitative and quantitative research in Aboriginal health (related to Chapter 6) ...64
3.1.1 Participant recruitment: ............................................................................. 64
3.1.2 Interview and moderator guide: ................................................................. 65
3.1.3 Inclusion and exclusion criteria: ............................................................... 65
3.1.4 Data analysis: ............................................................................................ 65
3.1.5 Sharing information with the community, dissemination of findings and translation of research into practice: .......................................................... 67
3.1.6 Ethics approvals: ................................................................................................. 68

3.2 Survey of Respiratory Specialists and Allied Health Professionals (related to Chapter 7) ........................................................................................................................................ 68

3.3 Smoking Termination Opportunity for inPatients (STOP) study (related to Chapter 13 and Chapter 14) .................................................................................................................. 69

3.3.1 Sample population: ............................................................................................. 69

3.3.2 Subject recruitment methods: ............................................................................. 70

3.3.3 Inclusion, exclusion and withdrawal criteria: ..................................................... 70

3.3.4 Randomisation and blinding: .............................................................................. 71

3.3.5 Quit SA counselling: ........................................................................................... 71

3.3.6 Primary and secondary outcomes: ..................................................................... 71

3.3.7 Data collection: .................................................................................................. 72

3.3.8 Adverse event monitoring: ................................................................................ 72

3.3.9 Sample size calculation: .................................................................................... 73

3.3.10 Statistical analyses: .......................................................................................... 73

3.3.11 Ethics approvals: ............................................................................................... 73

Chapter 4. ...................................................................................................................... 74

Interventions for smoking cessation in Indigenous populations ................................ 74

Statement of authorship ............................................................................................. 75

Chapter 5. ...................................................................................................................... 131

Interventions for tobacco use prevention in Indigenous youth .................................. 131

Statement of authorship ............................................................................................. 132

Chapter 6. ...................................................................................................................... 170

Barriers and enablers for use of smoking cessation pharmacotherapy for tobacco addiction among Aboriginal and Torres Strait Islander Australians: A mixed method analysis ........................................................................................................... 170

Statement of authorship ............................................................................................. 171

Chapter 7. ...................................................................................................................... 196
Chapter 8. Smoking cessation and tobacco prevention in Indigenous populations ................................................................. 203

Chapter 9. Methodological challenges and options for addressing them in Aboriginal and Torres Strait Islander health research ........................................................................................................... 263

Chapter 10. Current and emerging pharmacotherapeutic options for smoking cessation .............................................................. 273

Chapter 11. Smoking cessation interventions for lung cancer patients ................................................................................................. 298

Chapter 12. Is cancer risk still reduced if you give up smoking in later life? ...................................................................................... 316

Chapter 13. Smoking Termination Opportunity for inPatients (STOP): superiority of a course of varenicline tartrate plus counselling over counselling alone for smoking cessation: a 12-month randomised controlled trial for inpatients .......................................................................................... 331

Chapter 14. Safety of a course of varenicline tartrate and counselling over counselling alone for smoking cessation: a 52-week randomised controlled trial for inpatients ........................................................................ 340

Chapter 15. Smoking Termination Opportunity for inPatients (STOP): superiority of a course of varenicline tartrate plus counselling over counselling alone for smoking cessation: a 12-month randomised controlled trial for inpatients .......................................................................................... 331
Training health professionals in smoking cessation ...................................................... 354
Statement of authorship ................................................................................................. 355

Chapter 16. Discussion .................................................................................................... 504
16.1 Significance and contribution to knowledge .......................................................... 504
16.2 Limitations and problems encountered .................................................................. 508
  16.2.1 Systematic reviews, Cochrane meta-analyses and policy publications: .. 508
  16.2.2 Indigenous qualitative and mixed method research: ..................................... 509
  16.2.3 Smoking Termination Opportunity for inPatient (STOP) trial: ................. 510
16.3 Future directions .................................................................................................... 511
  16.3.1 Training health professionals: ....................................................................... 511
  16.3.2 Utilising social media and role models for tobacco prevention amongst youth: ..................................................................................................... 516

Chapter 17. Conclusions.................................................................................................. 519
References ......................................................................................................................... 521
Appendices ........................................................................................................................ 531
  Appendix 1 Cochrane Indigenous tobacco cessation protocol ......................... 532
  Appendix 2 Cochrane Indigenous tobacco prevention protocol ..................... 541
  Appendix 3 Audit trail and contact log for qualitative research ....................... 551
    Interviews and surveys ....................................................................................... 551
    Presentations/media ........................................................................................... 553
  Meetings/networking ............................................................................................. 567
  Appendix 4 Log of training, seminars and workshops attended ....................... 586
  Appendix 5 Ethics approval letters ......................................................................... 604
  Appendix 6 Moderator guide for doctors .............................................................. 608
  Appendix 7 Moderator guide for key stakeholders ............................................. 616
  Appendix 8 Evidence of dissemination for results – media (232 occasions) ...... 624
    2015 ................................................................................................................... 624
    2014 ................................................................................................................... 628
    2013 ................................................................................................................... 644

Page 7 of 779
2012 ............................................................................................................................ 651

Appendix 9  Evidence of dissemination for results – Published book chapter ...........654

Appendix 10  NHMRC/Cancer Australia TRIP Fellowship research proposal ............707

Appendix 11  Channel 7 Children’s Research Foundation – Expression of interest ..775
Declaration

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint award of this degree.

I give consent to this copy of my thesis when deposited in the University Library, being made available for load and photocopying, subject to the provisions of the Copyright Act 1968.

The author acknowledges that copyright of published works contained within this thesis resides with the copyright holder(s) of those works.

I also give permission for the digital version of my thesis to be made available on the web, via the University’s digital research repository, the Library Search and also through web search engines, unless permission has been granted by the University to restrict access for a period of time.

Signed……………………………………………… Date …………………
Acknowledgements

Family and friends

“You can kiss your family and friends good-bye and put miles between you, but at
the same time you carry them in your heart, your mind, your stomach, because you
do not just live in a world but a world lives in you.”

~ Fredrick Buechner

This PhD would not have been possible without some very exceptional people who I have
the profound honour to call my family, friends and mentors.

Firstly, to my Mum and Dad, Eve and Philip Carson, who have continually encouraged me
to pursue my passions and to experience as much as possible of what the world has to
offer. Mum, you have been my best friend since my first memory. It is because of your
devotion as a mother and unyielding support on a daily and often nightly basis that I as an
adult now have the courage and ambition to pursue my dreams. Dad, you taught me from a
young age that if I was going to do something that I should do it well or not at all. You
have a resilience that could only admired and you live by a principle that I had no choice
but to strive to emulate.

Michael Chahhoud, my fiancé, my love, my rock. You are both the bane of my existence
and the light in my world. Until I met you I didn’t know it was possible to feel
simultaneously infuriated to the point of screaming and teeming with joy to the point of
uncontrollable laughter. You have always brought out the best in me and supported me
with unrelenting friendship and devotion. You were the one who pushed me to think
outside the box and to do my PhD no matter what. I couldn’t have done this without you!

My grandmother, Irma Dallos, who taught me the meaning of strength, determination and
bravery and to my Granny, Dora Carson, who taught me how to admire the little things and
to be thankful for the joy that can be experienced in each and every day, thank you.

My special little girls, Cleo and Mystique; you have both been my constant companions
during the many late nights and early mornings in front of the computer. I was never alone
during the writing of any of my thesis over the four years and you both were always a
welcome and often much needed distraction. Forever loved and forever missed.
Thank you to all my family for your love, support and wisdom, especially Aunty Barb, Uncle Jenô (Capricorn’s forever), Aunty Lisa, Aunty Krys, Uncle Joe, Aunty Minic, Uncle Rob and all of my many beautiful cousins for whom there are far too many to name individually, though a special thanks to Kate McLachlan for her help on several occasions with this work, Georgia McLachlan and Aimee Rasic for their unwavering support. Aimee you are one of the strongest women I know!

“Friendship is born at the moment one person says to another: What? You too? I thought I was the only one.”

~ C. S. Lewis

Malcolm Philip Brinn, you have been a great friend over the past seven years and I can truly say it has been an honour to work with you. If not for you I never would have even considered doing a PhD. It was because of your relentless assurance that ‘actually Kit yes you can go to University and yes you are capable of doing a PhD’, that I actually started this to begin with. I think it should be my pen that I hand over to you!

I have been fortunate to have many colleagues who I can also call my friends. Their support throughout this thesis has often been to introduce sanity back into an otherwise unsustainable environment. Melissa Kluge (Moo Moo), Harshani Jayasinghe (Hash), Liam Harwood (Wolowitz/Spanner), Zafar Usmani (Zaf), Mark Jurisevic (Clark Kent), Alison Barr (Albo), Sarah Appleton (Serz) and many others. Thank you for making me take time out for the fun stuff.

Collaborators, participants and mentors

“We are all visitors to this time, this place. We are just passing through. Our purpose here is to observe, to learn, to grow, to love... and then we return home.”

~ Aboriginal proverb

A special thanks to all the collaborators, participants, patients and mentors including all of the Aboriginal and Torres Strait Islander Elders, researchers and health care workers who have contributed to the design and development of this research. In particular I would like to thank Jeffrey Newchurch, Smita Shah, Klynton Wanganeen, Ruth Miller, Harrold Stewart, Dennis Colson, Vanessa Johnson, Anne Chang, Chris Schull, Alwin Chong, Helen Bradley and all participants who contributed to this research but wished to remain anonymous.
Supervisors

“Tell me and I forget, teach me and I may remember, involve me and I learn.”

~ Benjamin Franklin

To Professor Brian James Smith, who employed me when others might not have, who taught me when others wouldn’t take the time and who provided me with opportunities to turn a job into a career. If not for you I wouldn’t know how to write an abstract, construct a manuscript or design and conduct epidemiological research based on my own ideas and theories. Thank you for persevering with me and my insistence on doing a PhD while still working with you full-time as a researcher and thank you for saying no the first two times I asked to do it (lol). It was because of your cautioning that I was able to better prepare myself for the challenge of a PhD.

“I would spread the cloths under your feet; But I, being poor, have only my dreams;
I have spread my dreams under your feet; Tread softly because you tread on my dreams.”

~ William Butler Yates

To Professor Adrian Jeffrey Esterman, a marvel of a mentor who strikes hunger into learning even amongst the most sated, who taught me how to perform statistical analyses on my own and who I could always rely on to ask me a question I had absolutely no clue how to answer. If not for you I would have had some very serious methodological flaws and some very tricky questions to try and explain during presentations. Thank you for your tenacity in encouraging me to do my PhD and giving me the confidence I needed to pick up the gauntlet.

“What is a teacher? I’ll tell you: it isn’t someone who teaches something, but someone who inspires the student to give of her best in order to discover what she already knows.”

~ Paulo Coehlo

To Professor Matthew James Peters, who I admire for his dedication, passion and sense of justice, whose comprehension of what I perceived to be such a complex subject made me more at ease knowing I had such a renowned, distinguished and learned scholar in my corner. If not for you I would not have had the courage or ability to tackle the big guys and take affirmative action to truly make a practical difference for the causes I believe in. Watching you on many occasions debate the line between right and wrong has been both
entertaining and motivating. Thank you for guiding me and inspiring me to follow in your footsteps.

“Education is only the most fully conscious of the channels whereby each generation influences the next”

~ C. S. Lewis

To Dr Antony Veale, who provided me with a trove of knowledge from years of experience and understanding, who taught me what to write and not to write and who provided me with an example of what it is to conduct a worthy PhD in Aboriginal health. If not for you I would not have had the foundation upon which to establish my own research and make a worthwhile contribution to a population underserved and overburdened with disparities. Thank you for sharing your skills and experience.
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5A</td>
<td>Ask, Assess, Advise, Assist and Arrange</td>
</tr>
<tr>
<td>6MWD</td>
<td>Six Minute Walking Distance</td>
</tr>
<tr>
<td>α4β2</td>
<td>Alpha 4 beta 2</td>
</tr>
<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
</tr>
<tr>
<td>ACT</td>
<td>Australian Capital Territory</td>
</tr>
<tr>
<td>Adj</td>
<td>Adjusted</td>
</tr>
<tr>
<td>ADSCA</td>
<td>Alcohol and other Drug Services Central Australia</td>
</tr>
<tr>
<td>AE</td>
<td>Adrian Esterman</td>
</tr>
<tr>
<td>AIHW</td>
<td>Australian Institute of Health and Welfare</td>
</tr>
<tr>
<td>AMSWS</td>
<td>Aboriginal Medical Service Western Sydney</td>
</tr>
<tr>
<td>ANBL</td>
<td>All Nations Breath of Life</td>
</tr>
<tr>
<td>ANCOVA</td>
<td>Analysis of Covariance</td>
</tr>
<tr>
<td>ANOVA</td>
<td>Analysis of Variance</td>
</tr>
<tr>
<td>Approx.</td>
<td>Approximately</td>
</tr>
<tr>
<td>APY</td>
<td>Anangu Pitjantjatjara Yankunytjatjara (APY lands, central Australia)</td>
</tr>
<tr>
<td>ASM</td>
<td>Annual Scientific Meeting</td>
</tr>
<tr>
<td>ASMR</td>
<td>Australian Society for Medical Research</td>
</tr>
<tr>
<td>ATS</td>
<td>American Thoracic Society</td>
</tr>
<tr>
<td>AU</td>
<td>Australian</td>
</tr>
<tr>
<td>AV</td>
<td>Antony Veale</td>
</tr>
<tr>
<td>BHI</td>
<td>Basil Hetzel Institute for Translational Health Research</td>
</tr>
<tr>
<td>b.i.d.</td>
<td>Twice daily</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Definition</td>
</tr>
<tr>
<td>--------------</td>
<td>------------</td>
</tr>
<tr>
<td>BJS</td>
<td>Brian James Smith</td>
</tr>
<tr>
<td>BMI</td>
<td>Body Mass Index</td>
</tr>
<tr>
<td>BOABS</td>
<td>Be Our Ally Beat Smoking</td>
</tr>
<tr>
<td>BS</td>
<td>Brian Smith</td>
</tr>
<tr>
<td>CA</td>
<td>Continuous Abstinence</td>
</tr>
<tr>
<td>CATS</td>
<td>Chronically Addicted Tobacco Smokers</td>
</tr>
<tr>
<td>CBT</td>
<td>Cognitive Behavioural Therapy</td>
</tr>
<tr>
<td>CCT</td>
<td>Controlled Clinical Trial</td>
</tr>
<tr>
<td>CD</td>
<td>Compact Disk</td>
</tr>
<tr>
<td>CDC</td>
<td>Centres for Disease Control</td>
</tr>
<tr>
<td>CEITC</td>
<td>Centre for Excellence in Indigenous Tobacco Control</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>CI</td>
<td>Confidence Intervals</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
</tr>
<tr>
<td>CO</td>
<td>Carbon Monoxide</td>
</tr>
<tr>
<td>COPD</td>
<td>Chronic Obstructive Pulmonary Disease</td>
</tr>
<tr>
<td>COAG</td>
<td>Council of Australian Governments</td>
</tr>
<tr>
<td>cpd</td>
<td>Cigarettes per day</td>
</tr>
<tr>
<td>CPO</td>
<td>Controlled Purchase Operations</td>
</tr>
<tr>
<td>CYP1A1</td>
<td>Cytochrome P450 1A1</td>
</tr>
<tr>
<td>CYP1A2</td>
<td>Cytochrome P450 1A2</td>
</tr>
<tr>
<td>CYP2A6</td>
<td>Cytochrome P450 2A6</td>
</tr>
<tr>
<td>DASSA</td>
<td>Drug and Alcohol Services South Australia</td>
</tr>
<tr>
<td>Deff</td>
<td>Design Effect</td>
</tr>
</tbody>
</table>
Dent  Dentists
DHS  Doctors Helping Smokers
DNA  Deoxyribonucleic acid
DOC/Doc  Doctor
DOI  Digital Object Identifier
DVD  Digital Versatile Disk
E-cigarettes  Electronic cigarettes
EEG  Electroencephalogram
EGF  Epithelial Growth Factor
ENT  Ears, Nose and Throat (specialist)
EORTC  European Organisation for Research and Treatment of Cancer
EOT  End of Treatment
EPOC  Effective Practice Organisation of Care (Cochrane group)
EQD  Estimated Quit Date
ESS  Effective Sample Size
ETS  Environmental Tobacco Smoke
F  Female
FAX  Facsimile
FDA  Food and Drug Administration
FEV$_1$  Forced Expiratory Volume in 1 second
FRACP  Fellow of the Royal Australasian College of Physicians
Fri  Friday
FVC  Forced Vital Capacity
GAINS  Give American Indians No-smoking Strategies
GG    Gillian Gould
GIV   Generic Inverse Variance
GLIM  Generalised Linear Interactive Modelling
GLMM  Generalised Linear Mixed Modelling
GP    General Practitioner
GUTS  Give Up The Smokes
h     Hour
HB    Helen Bradley
HDA   Healthy Development Adelaide
HJ    Harshani Jayasinghe
HMO   Health Maintenance Organisation
HPV   Human Papillomavirus
HREC  Hospital Research Ethics Committee
I-ANBL Internet All Nation Breath of Life
IARC  International Agency for Research on Cancer
ICMJE International Committee of Medical Journal Editors
IQR   Inter Quartile Range
ISRCTN International Standard Randomised Controlled Trial Number
IV    Inverse Variance
JN    Jeffrey Newchurch
KC    Kristin Carson
KCSH  Key Community Stakeholder
KS    Kuljit Singh
KVC   Kristin Veronica Carson
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAH</td>
<td>Royal Adelaide Hospital</td>
</tr>
<tr>
<td>RCT</td>
<td>Randomised Controlled Trial</td>
</tr>
<tr>
<td>R.E.A.L.</td>
<td>Refuse, Explain, Avoid and Leave</td>
</tr>
<tr>
<td>RELIQ</td>
<td>Reduced Levels of nicotine in cigarettes to Increase Quitting</td>
</tr>
<tr>
<td>rho</td>
<td>Interclass Correlation Coefficient</td>
</tr>
<tr>
<td>ROB</td>
<td>Risk of Bias</td>
</tr>
<tr>
<td>RR</td>
<td>Risk ratio</td>
</tr>
<tr>
<td>RT</td>
<td>Rachada To-A-Nan</td>
</tr>
<tr>
<td>SA</td>
<td>South Australia</td>
</tr>
<tr>
<td>SAHMRI</td>
<td>South Australian Health and Medical Research Institute</td>
</tr>
<tr>
<td>SAS</td>
<td>Statistical Analysis Software</td>
</tr>
<tr>
<td>Sat</td>
<td>Saturday</td>
</tr>
<tr>
<td>SD</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>SE</td>
<td>Standard Error</td>
</tr>
<tr>
<td>SES</td>
<td>Socio-Economic Status</td>
</tr>
<tr>
<td>SF36</td>
<td>Short Form 36</td>
</tr>
<tr>
<td>SMD</td>
<td>Standardised Mean Difference</td>
</tr>
<tr>
<td>SNAP</td>
<td>Smoking, nutrition, alcohol and physical activity</td>
</tr>
<tr>
<td>SODAS</td>
<td>Stop, Options, Decide, Act/communication skills, Self-praise</td>
</tr>
<tr>
<td>SR</td>
<td>Sustained Release</td>
</tr>
<tr>
<td>SSA</td>
<td>Site Specific Assessment</td>
</tr>
<tr>
<td>STOMP</td>
<td>STOp smoking by Mobile Phone</td>
</tr>
<tr>
<td>STOP</td>
<td>Smoking Termination Opportunity for inPatients</td>
</tr>
<tr>
<td>T</td>
<td>Time point</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>tab</td>
<td>Tablet</td>
</tr>
<tr>
<td>TAP</td>
<td>Tobacco Action Project</td>
</tr>
<tr>
<td>Tas</td>
<td>Tasmania</td>
</tr>
<tr>
<td>TEL</td>
<td>Telephone</td>
</tr>
<tr>
<td>THP</td>
<td>Training Health Professionals</td>
</tr>
<tr>
<td>TM</td>
<td>Trade Mark</td>
</tr>
<tr>
<td>TQEH</td>
<td>The Queen Elizabeth Hospital</td>
</tr>
<tr>
<td>TQEHLMH</td>
<td>The Queen Elizabeth Hospital and Lyell McEwin Hospital</td>
</tr>
<tr>
<td>TR</td>
<td>Thomas Robertson</td>
</tr>
<tr>
<td>TRIP</td>
<td>Translating Research In to Practice</td>
</tr>
<tr>
<td>TSANZ</td>
<td>Thoracic Society of Australia and New Zealand</td>
</tr>
<tr>
<td>TSI</td>
<td>Torres Strait Islander</td>
</tr>
<tr>
<td>Tue</td>
<td>Tuesday</td>
</tr>
<tr>
<td>TV</td>
<td>Television</td>
</tr>
<tr>
<td>Txt2Quit</td>
<td>Text to Quit</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>UoA</td>
<td>University of Adelaide</td>
</tr>
<tr>
<td>US</td>
<td>United States</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
</tr>
<tr>
<td>Uni</td>
<td>University</td>
</tr>
<tr>
<td>UV</td>
<td>Ultraviolet</td>
</tr>
<tr>
<td>VAMC</td>
<td>Veteran Affairs Medical Centres</td>
</tr>
<tr>
<td>VT</td>
<td>Varenicline Tartrate</td>
</tr>
<tr>
<td>VT+C</td>
<td>Varenicline Tartrate plus Counselling</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>WA</td>
<td>Western Australia</td>
</tr>
<tr>
<td>WCH</td>
<td>Women’s and Children’s Hospital</td>
</tr>
<tr>
<td>WEA</td>
<td>Workers Education Association</td>
</tr>
<tr>
<td>Wed</td>
<td>Wednesday</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
</tr>
<tr>
<td>Wk</td>
<td>Week</td>
</tr>
<tr>
<td>WMD</td>
<td>Weighted Mean Difference</td>
</tr>
<tr>
<td>YAA</td>
<td>Young Achiever Awards</td>
</tr>
<tr>
<td>Yr</td>
<td>Year</td>
</tr>
</tbody>
</table>
Awards (Total number of awards/finalist positions n=24)

2016  Finalist and oral presenter for the Ann Woolcock Young Investigator Award for the Thoracic Society of Australia and New Zealand (top five abstracts are selected as finalists and oral presenters for the April 2016 ASM to be held in Perth); presentation title:

Superiority of a course of varenicline tartrate plus counselling over counselling alone for smoking cessation: a 24 month randomised controlled trial for inpatients

2015  Best oral presentation by a Senior Clinical Researcher for The Queen Elizabeth Hospital Research Day for 2015; presentation title:

Superiority of a course of varenicline tartrate plus counselling over counselling alone for smoking cessation: a 12 month randomised controlled trial for inpatients

2015  Recipient of the Australian Financial Review and Westpac 100 Women of Influence; One of the winners in the Young Leader category

2015  Recipient of the 2015 South Australian Tall Poppy award presented on the 27th of July at Government House by the Governor the Honourable Hieu Van Le

2015  Recipient of the Australian Society for Medical Research Ross Wishart Memorial Award for best oral presentation at the South Australia conference, (top four abstracts are chosen as finalists and oral presenters), June 2015, Adelaide ASM; presentation title:

Superiority of a course of varenicline tartrate plus counselling over counselling alone for smoking cessation: a 12 month randomised controlled trial for inpatients
2015  Best oral presentation for the Evidence Based Medicine TSANZ (Thoracic Society of Australia and New Zealand) Special Interest Group: Gold Coast ASM; presentation title:

*Culturally-tailored interventions for smoking cessation in Indigenous populations: A Cochrane systematic review and meta-analysis*

2015  Best oral presentation Tobacco Control Prize for the TSANZ (Thoracic Society of Australia and New Zealand): Gold Coast ASM; presentation title:

*Can nicotine replacement therapy delivered via continuous patch cause auto-induction (up-regulation) of receptors? A pilot study*

2015  Honorary Member of the Golden Key International Honour Society for the University of South Australia Chapter; Golden Key recognises the top 15% of students graduating from Universities worldwide and membership is by invitation only; Made an Honorary Member and Keynote speaker during the May 2015 annual ceremony

2015  Thoracic Society of Australia and New Zealand Award for recognition of dedication to Respiratory Medicine and being named the Young Australian of the Year presented at the 2015 Gold Coast Annual Scientific Meeting Opening Ceremony

2015  **National finalist for the Young Australian of the Year for Australia** (South Australian representative) including attendance at ceremonies in Canberra on Australia Day eve including morning tea at The Lodge with the Prime Minister Tony Abbott and lunch with the Governor General at Parliament House

2015  Young Citizen of the Year for the City of Holdfast Bay announced on Australia Day 2015 during a public ceremony in Glenelg

2014  Finalist and oral presenter for the South Australian and Northern Territory Thoracic Society of Australia and New Zealand Young Investigator Award; presentation title:
Recipient of the Young Australian of the Year for South Australia 2014/15

Winner of the Premier’s and Channel 9 Young Achiever of the Year. Chosen as the recipient of the award from over 200 applications and across 8 categories including: Online achievement, sports, arts, career kick-start, Aboriginal achievement, science and technology, rural health, and environment.

Winner of the Channel 9 Young Achiever Award for The University of Adelaide Faculty of Sciences, Science and Technology Category

Channel 9 Young Achiever Award Finalist (one of four) for the Australian Super Career Kick Start Award

Finalist (one of five out of 11 applications) and oral presenter for the South Australian and Northern Territory Thoracic Society of Australia and New Zealand Young Investigator Award; presentation title: 

*Barriers and enablers for the use of smoking cessation pharmacotherapy in Aboriginal and Torres Strait Islander populations: A qualitative synthesis*

Semi-finalist (1 of 8 selected for an oral presentation) for the 2013 South Australian Young Investigator Award, following short listing from audio recording, CV and written application (lay summary)

Recipient of the Young Professionals Group Development Grant Program Award for the development activity titled ‘Leaders in Lung Health and Respiratory Services’

Finalist (one of four) for the Catherine Helen Spence (CHS) Memorial Scholarship, through submission of a detailed grant application and following CHS committee panel interview
2012  Recipient of the South Australian and Northern Territory Thoracic Society of Australia and New Zealand Young Investigator Award; presentation title: *Interventions for tobacco prevention in Indigenous youth: A Cochrane review and narrative synthesis*

2012  TSANZ (Thoracic Society of Australia and New Zealand) Tobacco Control Prize for best oral presentation: Canberra ASM; presentation title: *Interventions for tobacco cessation in Aboriginal Australians and other Indigenous populations*

2012  Recipient of the South Australian and Northern Territory Thoracic Society of Australia and New Zealand Young Investigator Award; presentation title: *Interventions for tobacco prevention in Indigenous youth: A Cochrane review and narrative synthesis*

2011  Finalist and oral presenter for the South Australian and Northern Territory Thoracic Society of Australia and New Zealand Young Investigator Award; presentation title: *Interventions for tobacco cessation in Indigenous populations: A Cochrane meta-analysis*
Fellowships, grants and scholarships (Total $1,153,022.20 related to PhD)

2016-18 Smith BJ (CIA), Carson KV (CIB), Esterman AJ (CIC), Peters MJ (CID), Gould G (CIE). National Health and Medical Research Council (NHMRC) Project grant. ‘Training health professionals in tobacco cessation and evidence translation for Aboriginal Australians’ $832,723.20 over three years

2015-17 Carson KV. (CIA) NHMRC TRIP Fellowship (National Health and Medical Research Council, Translating Research Into Practice Fellowship). Title of research ‘Training health professionals in smoking cessation and tobacco abuse prevention for Aboriginal Australians’. $172,911.00 for 0.5 salary and professional development over two years

2015-17 Carson KV. (CIA) Cancer Australia co-funding for the NHMRC TRIP Fellowship (National Health and Medical Research Council, Translating Research Into Practice). Title of research ‘Training health professionals in smoking cessation and tobacco abuse prevention for Aboriginal Australians’. $100,000.00 over two years including $20,000.00 p.a. for salary support and $30,000.00 p.a. for research support

2015 Carson KV. Robert Pierce Grant-In-Aid for Indigenous Lung Health awarded once annually via the Thoracic Society of Australia and New Zealand to honour the memory of the late Respiratory Professor Rob Pierce for research focusing on understanding and improving the lung health of Indigenous people in Australia and/or New Zealand. Title of study ‘Training health professionals in smoking cessation and tobacco prevention interventions for Aboriginal Australians’ $15,000.00

2015 Carson KV. Smith BJ. Research activity sponsorship from Seeley International made by Frank and Kathy Seeley following a presentation of research by Kristin and Brian on the 04/03/2015 to support a scholarship position within the department $18,000.00
2015 **Carson KV.** Recipient of the international travel grant from Healthy Development Adelaide for final year PhD students to attend Res Health 2015: 1st International Respiratory and Sleep Medicine Conference **$500.00**

2015 **Carson KV.** Recipient of a competitive Travel grant from the Thoracic Society of Australia and New Zealand (TSANZ) to attend the 2015 conference in the Gold Coast; **$388.00**

2014 **Carson KV.** Janet Elder International Travel Award; Awarded from the submitted abstract ‘Barriers and enablers for the use of smoking cessation pharmacotherapy in Aboriginal and Torres Islander populations: A qualitative analysis’ **$2,500.00**

2013-14 **Carson KV.** Australian and New Zealand School of Government Grant to write a policy document for the journal *Evidence Base* titled ‘Interventions for smoking cessation and tobacco abuse prevention in Indigenous populations; **$10,000.00**

2013 **Carson KV.** Recipient of the Young Professionals Group Development Grant for the development activity titled ‘Leaders in Lung Health and Respiratory Services’ to attend the TSANZ 2014 conference in Adelaide **$500.00**

2012 **Carson KV.** Recipient of a competitive Travel grant from the Thoracic Society of Australia and New Zealand (TSANZ) to attend the 2012 conference in Canberra; **$500.00**
Peer-reviewed journal publications (Total Impact Factor (IF) 49.815)

Submitted (n= 2 related to PhD work)


2. **Carson KV**, Brinn MP, Peters MJ, Chang AB, Veale AJ, Esterman AJ, Smith BJ. Smoking cessation pharmacotherapy and health service utilisation for tobacco addiction among Aboriginal and Torres Strait Islander Australians: A qualitative analysis *Submitted to Tobacco Control* 2015 (IF 5.150)

Published (n= 12 related to PhD work)


4. **Carson KV**, Smith BJ. Methodological challenges and options for addressing them in Aboriginal and Torres Strait Islander health research. *Australasian Epidemiology* 2014; 21(2): 47-50 (IF N/A)


9. **Carson KV**, Jurisevic MA, Smith BJ. Is cancer still reduced if you give up smoking in later life? *Substance Abuse, Research and Treatment* 2013; 2(5): 357-68; ISSN 1758-1966 (IF N/A)


**Peer-reviewed book chapters (n=2 related to PhD work)**


Presentations: (Total number of PhD presentations n=70)

Keynote speaker presentations at conferences:

1. Carson KV. Keynote speaker for the YWCA (Young Women’s Christian Association) of Adelaide for SHE Leads Young Women Conference about my journey to becoming a scientist and what young women can do to take charge and make a positive change in their lives; Conference theme is Power to change Women’s Leadership (21/08/2015; Stamford Plaza Hotel)

2. Carson KV. Keynote speaker for the YWCA (Young Women’s Christian Association) of Adelaide for SHE Leads High Conference about my journey to becoming a scientist and what young women can do to take charge and make a positive change in their lives (08/05/2015; Stamford Plaza Hotel)


(NOTE: The two abstracts above were selected as a combined ‘key note’ oral presentation (30 minute duration), which subsequently received an award being ‘The Tobacco Control Prize’ for the best oral presentation)

Invited conference presentations

5. Carson KV. Smoking cessation in COPD – current evidence and future directions. South Australian and Northern Territory Annual Scientific Meeting for the Thoracic Society of Australia and New Zealand, September, 2014 Adelaide (15 minutes + 5 minutes question time); Invited by President of the Society Dr Chien-Li Holmes-Liew, TSANZ
Oral conference presentations:


16. Carson KV. Barriers and enablers for the use of smoking cessation pharmacotherapy in Aboriginal and Torres Strait Islander populations: A qualitative analysis. *TQEH (The Queen Elizabeth Hospital), Basil Hetzel Institute for Translational Health Research: Research Day Conference* Adelaide, October 2014


22. Carson KV. Interventions for tobacco prevention in Indigenous youth: A Cochrane review and narrative synthesis. *TQEH (The Queen Elizabeth Hospital), Basil Hetzel Institute for Translational Health Research: Research Day Conference Adelaide, October 2013*


smoking cessation: A 52 week randomized controlled trial. ATS May 2012, San Francisco, California

(NOTE: Of all abstracts submitted for the 2012 ATS, this research was one of only seven selected for an oral presentation in the ‘Late breaking clinical trials’ session, chaired by Dr David Hau, Chair of the International Conference Committee (ATS International conference ‘Highlights for Clinicians’))


Poster conference presentations:


29. Carson KV, Jayasinghe HP, Peters MJ, Esterman AJ, Veale A, Brinn MP, Bradley H, Newchurch J, Smith BJ. Barriers and enablers for the use of smoking cessation pharmacotherapy in Aboriginal and Torres Strait Islander populations: A
qualitative analysis. *Postgraduate Research Conference; National Wine Centre, September 2014, Adelaide*


**Other (non-conference) ‘keynote’ oral presentations:**

34. Carson KV. Invited Plenary Speaker for The Queen Elizabeth Hospital Grand Rounds for the 1st of September 2015 about the Indigenous tobacco research undertaken during the PhD; Invited by Professor John Beltrame, Michell Professor of Medicine, 45 minute presentation to approximately 100 clinicians, scientists, doctors, trainees and allied health professionals

35. Carson KV, with Gill Hicks, John Swann and Vince Coulthard as representatives of the South Australian, Australian of the Year national finalists. A tour of honour is scheduled for June 2015, which will include multiple presentations across three days in schools and other forums around South Australian including inner regional Australia (Yorke Peninsula).
36. Carson KV. Invited speaker for the Playford Trust Networking Evening; Spoke about my journey to becoming a scientist and how to network in a scientific research setting (14/05/2015) at The Queen’s Head Hotel, North Adelaide

37. Carson KV. Keynote speaker for the City of Marion Youth Recognition Awards as part of National Youth Week; Spoke about my journey to becoming a scientist, the research that I do and positive messages for young people (13/04/2015)

38. Carson KV. ‘My journey to becoming a scientist’; University of South Australia Golden Key new member reception as Honorary Member and Keynote speaker for the Golden Key International Honour Society (Uni SA chapter) at Brookman Hall, UniSA City East Campus (approx. 500 people; )

39. Carson KV (Young Australian of the Year for SA), with Gill Hicks (Australian of the Year for SA), John Swan (Senior Australian of the Year for SA) and Vince Coulthard (SA Local Hero) invited for a corporate Panel Discussion hosted by Brand South Australia with ABC radio personality Ian Henschke as the MC. Each of us spoke about our journey to becoming SA Australian of the Year representatives, what we do now and what we plan on doing next (50 minutes; 17/02/2015; Adelaide Convention Centre; approx. 250 guests)

40. Carson KV, Special Guest Speaker for the Ocean View College Year 12 Graduation Ceremony to talk about my journey since leaving year 12 and how I became a scientist. 6th of August 2014 (20 minute oral to graduates, teachers and student’s family/friends – approximately 250 people; 09/12/2014).

41. Carson KV, Special Guest Speaker for the Kildare College Annual Awards Ceremony to encourage young women into science about to talk about my journey to becoming a scientist. 6th of August 2014 (15 minute oral to the entire school assembly).

42. Carson KV, Special Guest Speaker for the Morphett Vale East Primary School Year 7 Graduation Ceremony to talk about my journey from school to becoming a scientist. 6th of August 2014 (10 minute oral to graduates, teachers and student’s family/friends – approximately 400 people; 14/11/2014)
Other (non-conference) invited oral presentations:

43. Carson KV, Invited Plenary Speaker for The Queen Elizabeth Hospital Ground Rounds, September 2015 by Prof John F Beltrame (Michell Professor of Medicine, The University of Adelaide), related to PhD Indigenous research, with a specific focus on the clinical aspects of evidence translation (approximately 100 professors, doctors, registrars, interns, medical students and other allied health professionals; 45 minutes)

44. Carson KV, Special Guest Speaker for the Asthma Foundation of South Australia to speak about my journey to becoming a scientist and the work being done at The Queen Elizabeth Hospital, particularly related to smoking and Aboriginal health as per my PhD. Invited by David Bedson, CEO of Asthma Foundation South Australia (13/05/2015); Presented at the Asthma Foundation, South Road, Hilton in the presence of the CEO for Asthma Foundation Australia, Mark Brooke

45. Carson KV, Special Guest Speaker for the Rotary Club of Adelaide Light where I spoke about becoming a scientist and winning the Young Australian of the Year for South Australia as well as a brief showcase of research activities from my work at TQEH (approximately 40 people; 05/03/2015)

46. Carson KV, Special Guest Speaker for the Rotaract Club of Adelaide (youth chapter of Rotary) where I spoke about becoming a scientist and winning the Young Australian of the Year for South Australia as well as a brief showcase of research activities from my work at TQEH (approximately 30 people; 09/02/2015)

47. Carson KV, Special Guest Speaker for the Rotary Club of Prospect (45 minutes) where I spoke about how I became the Premier’s and Channel 9 Young Achiever of the Year and gave a summary of the research being undertaken at The Queen Elizabeth Hospital in Respiratory Medicine (Approximately 35 people; 05/11/2014)

48. Carson KV, Special Guest Speaker for Lung Foundation Australia ‘2014 Lung Health Education Day’ at AAMI Stadium on ‘How do we know this treatment
works? Information for patients (consumers) needs to be a 2-way process’
(Approximately 60 people; 30/10/2014)

49. Carson KV. Launch of the Premier’s Channel 9 Young Achiever of the Year for
2015. Invited to give a speech relating to winning the 2014 overall award and the
achievements within the last six months since winning the award at Ri Aus,
Adelaide City Centre (16/09/2014)

50. Carson KV, ‘I almost failed year 12 but look who’s a scientist now’; invited
speaker for the Science Alive Careers Day at the Adelaide Show Grounds by Ian
Maynard

51. Carson KV, ‘The importance of networking and how to become an academic
Kardashian’ 1st of August 2014; Invited guest speaker for the Early Career
Research Career Development Session for PhD students in Marketing,
Management and International Business, The University of Adelaide, School of
Engineering; (40 minute oral presentation and 20 minute Q+A panel session)

52. Carson KV, ‘Networking through a PhD’ 3rd of June 2014; One of three guest
speakers invited by The Australian Society of Medical Research in collaboration
with Healthy Development Adelaide for a paid dinner presentation evening held
at the University of South Australia, North Terrace (20 minute presentation)

53. Carson KV, ‘A research overview from the Respiratory Medicine Department,
TQEH: The good, the bad and the breathless’, 13th of May 2014; Invited by Prof
Alastair Burt, Dean of Medicine, Head of the School of Medicine, The University
of Adelaide for the Research Highlights session at the University (20 minute
presentation + 10 minute discussion time)

and research initiatives’ Repatriation General Hospital, 28th of June 2013; Invited
by Dr Nick Antic and Dr Staya Mysore for the Adelaide Institute of Sleep Health
(45 minute presentation)

55. Carson KV, ‘Research, capacity building and clinical practice improvement
initiatives’, Flinders University 25th of June 2013; Invited by Dr Dimitar Sajkov
(CEO Australian Respiratory and Sleep Medicine Institute and Director Southern sleep) for the Southern Respiratory Services Academic Meeting (40 minute presentation)

56. Carson KV, ‘Improving health for Aboriginal people through tobacco related research’; Nunkuwarrin Yunti Health Service Wakefield Street, April 2013; Invited by Aboriginal Health Council of South Australia tackling smoking co-ordinator (1 hour presentation)

57. Carson KV, Current evidence for smoking cessation and tobacco prevention; 12th of July 2012, Aboriginal Health Council of South Australia, invited by Ruth Miller (tackling smoking co-ordinator); Also discussed current research we are doing and asked advice from the Elders present (approximately 15 Elders; 30 minute presentation)

58. Carson KV, ‘The Clinical Practice Unit: Research, capacity building and clinical practice improvement initiatives’ Lyell McEwin Health Service, Grand Round; July 2012; Invited by Professor Brian Smith, Director of Respiratory Medicine, The Lyell McEwin Health Service (10 minutes)

Other oral presentations:

59. Carson KV. Advancing treatment options for tobacco cessation, prevention and related illnesses, with particular reference to Indigenious populations and Aboriginal Australians. Post-graduate final presentation for the University of Adelaide. Basil Hetzel Institute for Translational Health Research (30 minutes) Adelaide, July 7th 2015

60. Carson KV. Advancing the understanding of tobacco use, prevention, cessation and related illnesses in Indigenious populations, with particular reference to Aboriginal Australians. Post-graduate annual presentation for the University of Adelaide. Basil Hetzel Institute for Translational Health Research (20 minutes) Adelaide, September 2014
61. Carson KV. Advancing the understanding of tobacco use, prevention, cessation and related illnesses in Indigenous populations, with particular reference to Aboriginal Australians. Post-graduate annual presentation for the University of Adelaide. *Basil Hetzel Institute for Translational Health Research (20 minutes)* Adelaide, October 2013

62. Carson KV. $1.6 billion... up in smoke. Written application, publication and voice recording accepted as 1 of 8 finalists for the South Australian Young Investigator Award, Adelaide, Women’s and Children’s Hospital, Queen Victoria Lecture Theatre, September 2013 (5 minutes + question time)

63. Carson KV. Aboriginal health research at The Queen Elizabeth Hospital. *Aboriginal Health Research Network Meeting (5 minutes)* Cottage A, 223 Angus St Adelaide, August 2013

64. Carson KV. Research and capacity building in Respiratory Medicine: The role of the CPU. *The Queen Elizabeth Hospital Respiratory Medicine Business Meeting (20 minute)*; Adelaide, September 2013

65. Carson KV. $1.6 billion... up in smoke. Oral presenter for the University of Adelaide’s Three Minute Thesis Faculty of Health Sciences Final; The University of Adelaide, Hone Lecture Theatre, July 2013


70. Carson KV. Tobacco use cessation for Indigenous populations. Abstract accepted as 1 of 5 finalists for the South Australian and Northern Territory TSANZ Young Investigator Award; Adelaide, Ayres House Oct 2011 (10 minute oral presentation + 5 minutes for questions)
<table>
<thead>
<tr>
<th>Year</th>
<th>Role and Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015-Present</td>
<td>TSANZ: Elected Primary Chairperson of the Evidence Based Medicine Special Interest Group at the Gold Coast ASM</td>
</tr>
<tr>
<td>2015-Present</td>
<td>Advisory board member for “Kick.it” smoking cessation application for android and mobile phones that connects with the Apple watch; The apple watch connected with the phone tracks cigarettes, cravings and suggests different interventions/techniques to help patients get through the craving and quit smoking</td>
</tr>
<tr>
<td>2013-2015</td>
<td>TSANZ: Elected Primary Chairperson of the Tobacco and Addictive Substances Special Interest Group at the Darwin ASM</td>
</tr>
<tr>
<td>2013-Present</td>
<td>Member of the National Aboriginal and Torres Strait Islander Social Survey Reference Group for the Australian Bureau of Statistics</td>
</tr>
<tr>
<td>2013-Present</td>
<td>Member of the SA Health Young Professionals Group</td>
</tr>
<tr>
<td>2013-Present</td>
<td>Member of the SA Aboriginal Health Research Network</td>
</tr>
<tr>
<td>2013-Present</td>
<td>Research member of Healthy Development Adelaide (The University of Adelaide)</td>
</tr>
<tr>
<td>2012-present</td>
<td>Founding member of the ‘Indigenous Respiratory Health Working Party’ for the ‘Thoracic Society of Australia and New Zealand’ supported by the society and the current President of the TSANZ: Professor Matthew Peters and Chief Executive Officer of the TSANZ: Rita Perkins (Became recognised as an official research branch within the TSANZ in 2013)</td>
</tr>
<tr>
<td>2012-2013</td>
<td>TSANZ: Elected Deputy Convenor of the Tobacco and Addictive Substances Special Interest Group at the Canberra ASM</td>
</tr>
<tr>
<td>2011-Present</td>
<td>Invited member of the Aboriginal and Torres Strait Islander Health working party</td>
</tr>
<tr>
<td>2010-Present</td>
<td>Voting member of the Tobacco and Addictive Substances and Evidence Based Medicine Special interest groups of the Thoracic Society of Australia and New Zealand</td>
</tr>
</tbody>
</table>
2010-Present Invited member of The Central Northern Adelaide Health Service Smoke Free policy steering committee

2009-Present Invited member of The Queen Elizabeth Hospital Smoke Free policy steering committee
Summary

Despite the substantial progress made over the past decade, tobacco use is still a leading cause of preventable morbidity and premature mortality in the world. This thesis examined how to improve the uptake and success of smoking cessation and tobacco prevention interventions among some of the most prevalent tobacco users in Australia, being Indigenous populations and long-term tobacco users who have already developed tobacco-related illnesses.

Although mainstream tobacco cessation programs have reduced population-level smoking, they have done little to close the gap between Indigenous and non-Indigenous populations. Therefore options specifically tailored for the Indigenous setting need to be considered. A meta-analysis of four culturally-tailored smoking cessation interventions in Indigenous populations (Chapter 4) produced some limited evidence of efficacy in favour of the interventions (p=0.03). Likewise, a similar evaluation for youth tobacco prevention found only two studies, limiting the ability to draw reliable conclusions (Chapter 5).

Building on these findings, qualitative studies of Aboriginal Elders, key community stakeholders and health professionals revealed several barriers and facilitators for smoking cessation pharmacotherapy amongst Aboriginal Australian populations (Chapter 6). A national survey of current practice by Respiratory doctors and allied health professionals found similar results (Chapter 7). Finally a commissioned systematic literature review, found that combined pharmacotherapy and culturally-adapted interventions are effective in reducing tobacco prevalence (Chapter 8). Research in the Indigenous setting often poses methodological challenges, but options are available to overcome these problems (Chapter 9).

Several pharmacotherapeutic options are available to aid long-term abstinence including varenicline tartrate, bupropion hydrochloride and nicotine replacement therapy (Chapter 10). However, amongst some populations where attitudes of nihilism and clinical indifference are common, the benefits of tobacco cessation are not considered worth the effort it would take to quit. Smoking cessation can result in improved treatment outcomes amongst lung cancer patients (Chapter 11) and quitting in later life can still reduce the risk of developing some smoking-related illnesses (Chapter 12).
Following hospitalisation of current smokers due to a serious tobacco-related illness, a randomised controlled trial found varenicline tartrate plus Quitline counselling to be superior to Quitline counselling alone with 31.1% (n=61) and 21.4% (n=42) continuously abstinent respectively at 12-month follow-up (Chapter 13). Despite safety concerns of increased cardiovascular and neuropsychological events in acutely unwell people, none were identified amongst the 392 subjects recruited into the trial (Chapter 14).

Finally a third Cochrane meta-analysis (Chapter 15) revealed that patients of health professionals trained in smoking cessation techniques were more likely to achieve smoking abstinence (p=0.03) compared to untrained health professionals.

The evidence produced in this thesis suggests that with appropriate training and resources, health professionals working in Indigenous populations can facilitate smoking cessation and reduce the uptake of smoking. Translational research is needed to explore the most effective ways to achieve these outcomes and bridge the gap between resource development and implementation into policy and practice. Until a greater focus is placed on evidence translation, we cannot effectively advance treatment options for tobacco cessation, prevent uptake amongst youth and ultimately avoid tobacco-related illnesses.