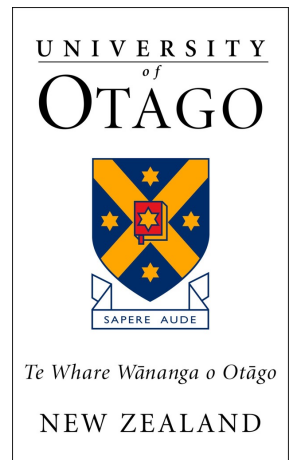


# Early vocational rehabilitation following neurological injury study (EVOCS)

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Research assistants: Julianne Johns, Tim Young, Jasjot Maggo



# Funding

## **MSD/HRC Partnership Programme – Maintaining health connections at work**

Request for proposals that addressed;

- 1) Evidence of effective early intervention practice that MSD can implement to respond to people who develop health conditions or disability while at work with a goal of preventing loss of connection to the labour market and promote overall wellbeing
- 2) An implementation framework that MSD can use to trial and evaluate new approaches that assist people to remain connected to work when managing health conditions or disability



Health Research Council  
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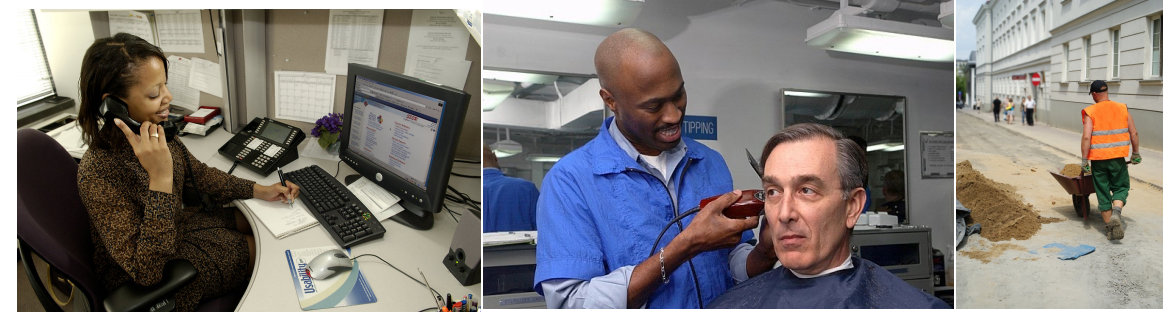
# Background

- Approximately 8000 people sustain a stroke annually in NZ
- One quarter of these are under the age of 65 years
- Stroke can affect an individual's cognitive ability, physical functioning and social skills, which in turn can affect their ability to return to work (RTW).
- RTW is an important rehabilitation goal and vocational rehabilitation services are intended to assist people to RTW following illness or injury.
- In NZ vocational rehabilitation services are available for people with mild impairments following stroke who had a job at the time of their stroke and can return to this employer/role.
- For those with more severe impairments, or who are unable to return to their job, vocational rehabilitation services are more limited and not routinely provided.

# Early Intervention Vocational Rehabilitation (EIVR)

- Early intervention vocational rehabilitation (EIVR) is an inpatient rehabilitation service currently being provided to people who sustain a spinal cord injury and are admitted to one of the two specialist spinal cord injury rehabilitation centres in NZ.
- Goals of EIVR service are to establish and maintain hope that RTW following injury is both possible and an expected outcome of rehabilitation
- EIVR aims to empower the individual by targeting motivation and self-efficacy and also providing assistance if required.

# EIVR is not just VR started earlier!



## **EIVR**

- Starts within days/weeks of onset of injury or impairment.
- Aims to inspire hope and enhance motivation to RTW following onset of a significant health condition/impairment.
- Often delivered as an inpatient before clarity of function/future work capacity known.
- Works primarily with the individual but can provide educative approach for employers about condition-specific RTW information.

## **Vocational rehabilitation**

- Commences when an individual is deemed medically ready to start back at work following injury/illness
- Aims to improve work and activity tolerance, avoid illness behaviour, prevent deconditioning and chronicity
- Involves concrete steps/timelines/plans towards a full RTW
- Works with the individual and their employer to facilitate an early and graduated RTW with modified hours/activities



# Aims of EVOCS

- Describe and understand how EIVR works and how the setting in which it is provided impacts on RTW outcomes for people with SCI
- Develop a plan for how the EIVR model could be translated for use in the stroke population

Dunn, J. A., Martin, R. A., Hackney, J. J., Nunnerley, J. L., Snell, D., Bourke, J. A., Hall, A., & Derrett, S. (2021). Early vocational rehabilitation for people with spinal cord injury: a research protocol using realist synthesis and interviews to understand how and why it works. *BMJ Open*, *11*(5), e048753.

# Aim 1:

Describe and understand how EIVR works and how the setting in which it is provided impacts on RTW outcomes for people with SCI



## Stage 1: Literature review

Reviewed the literature to get a picture about EIVR in the spinal cord injury population.



Developed a theory about how EIVR works, for whom and why.

Dunn, J. A., Hackney, J. J., Martin, R. A., Tietjens, D., Young, T., Bourke, J. A., Snell, D. L., Nunnerley, J. L., Hall, A., & Derrett, S. (2021). Development of a Programme Theory for Early Intervention Vocational Rehabilitation: A Realist Literature Review. *Journal of Occupational Rehabilitation*, 1-14.

## Stage 2: Interviews of people with spinal cord injury

We talked to 30 people with spinal cord injury to find out how early vocational rehabilitation worked (or didn't work) and why it worked (or didn't work) for them.

Martin, R. A., Nunnerley, J., Young, T., Hall, A., Snell, D. L., Hackney, J. J., Bourke, J. A., Derrett, S., & Dunn, J. A. (2022). Vocational wayfinding following spinal cord injury: in what contexts, how and why does early vocational rehabilitation work? *Journal of Vocational Rehabilitation*.





## Stage 3: Survey

We sent an online survey to people who had sustained a spinal cord injury in the last 5 years and received EIVR to look at how many people had returned to work, in what capacity and how EIVR assisted them to return to work (or not).

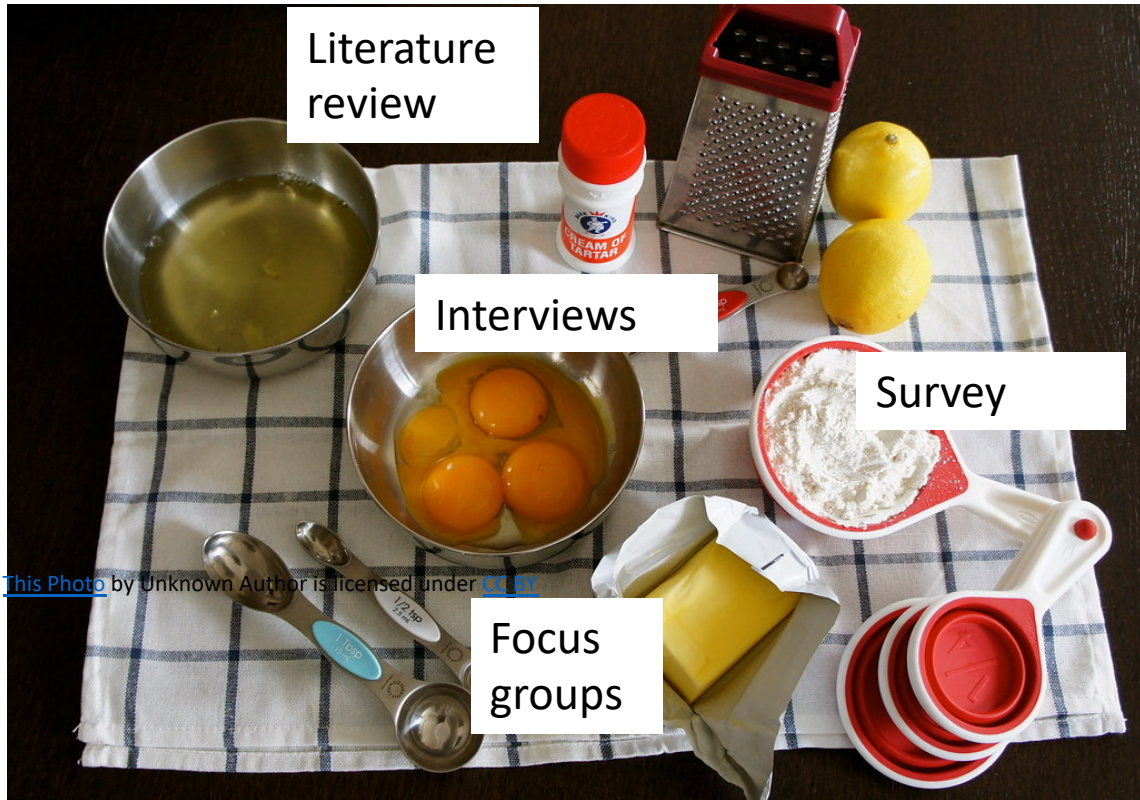
Snell, D. L., Hackney, J., Maggo, J., Martin, R., Nunnerley, J., Bourke, J., Hall, A., Derrett, S., & Dunn, J. A. (2021). Early vocational rehabilitation after spinal cord injury: a survey of service users. *Journal of Vocational Rehabilitation* 55(3), 323-333.

Focus groups with NZ Spinal Trust Vocational Providers and community vocational providers



Refined programme theory





# Conceptual framework of Early Intervention Vocational Rehabilitation



We have visualised the individual receiving EIVR as a seed



For a seed to grow it needs to be planted in the right environment, with sunlight and receive regular attention.

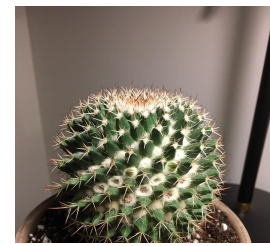




Clarity about functioning




May require support from EIVR staff or may be self supporting



Ongoing input determined by the individual's needs





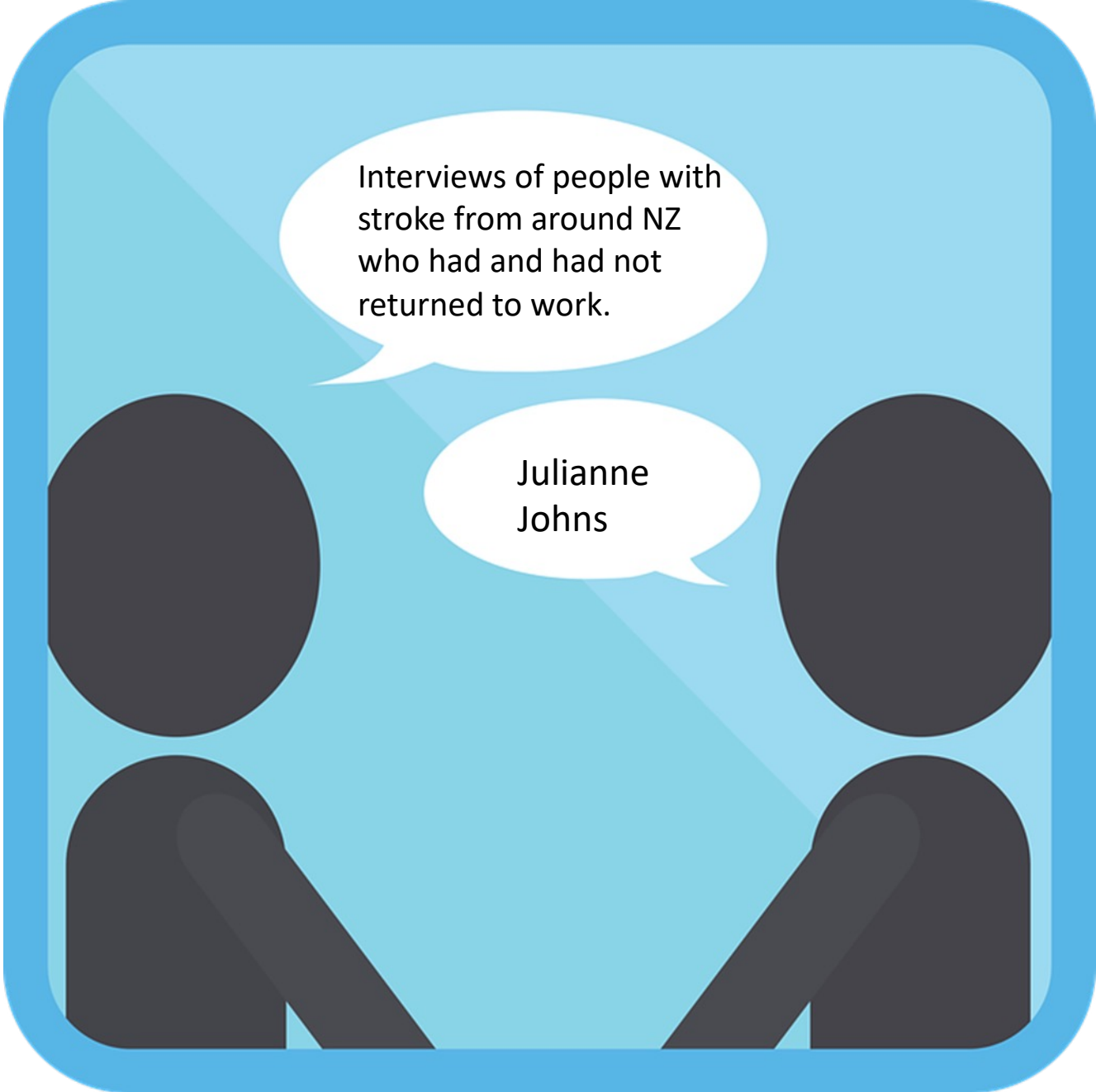
On completion of EIVR the individual is either potted up with all the required elements to continue to think about return to work or there are transplanted into a Vocational rehab service



Dunn, J. A., Martin, R. A., Hackney, J. J., Nunnerley, J., Snell, D. L., Bourke, J. A., Young, T., Hall, A., & Derrett, S. (2022). Developing a conceptual framework for Early Intervention Vocational Rehabilitation for people following spinal cord injury. *Journal of Occupational Rehabilitation*, 1 – 10.

## Aim 2:

Develop a plan for how the EIVR model could be translated for use in the stroke population

An illustration of an interview. Two dark grey silhouettes of people are shown from the chest up, facing each other. The background is a light blue gradient with a darker blue border. Two white speech bubbles are positioned between them. The top speech bubble contains the text 'Interviews of people with stroke from around NZ who had and had not returned to work.' The bottom speech bubble contains the name 'Julianne Johns'.

Interviews of people with stroke from around NZ who had and had not returned to work.

Julianne Johns

Develop a plan about how EIVR can be used in the stroke population



Rachelle Martin