



Promoting Research Through ICT Excellence: Successes and challenges of the partnership between University of Zimbabwe and University of Colorado Denver, USA.

AFREhealth Symposium

DURBAN, SOUTH AFRICA

5-8 August 2018

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Background

UZ researchers faced many barriers to productivity

- Unmanageable costs
- Time
- High risk of data loss during project
- Difficult reuse of data

ICT can address these problems and improve productivity

- Reduce cost by using open-source and freeware
- Support robust, consistent, and structured capture of data for analysis
- Prevent data loss and inappropriate access
- Provide powerful computer resources irrespective of local hardware via cloud computing
- Empower researchers to conduct complex analyses using cutting edge techniques
- Capacitate researchers to regarding use of modern digital research tools

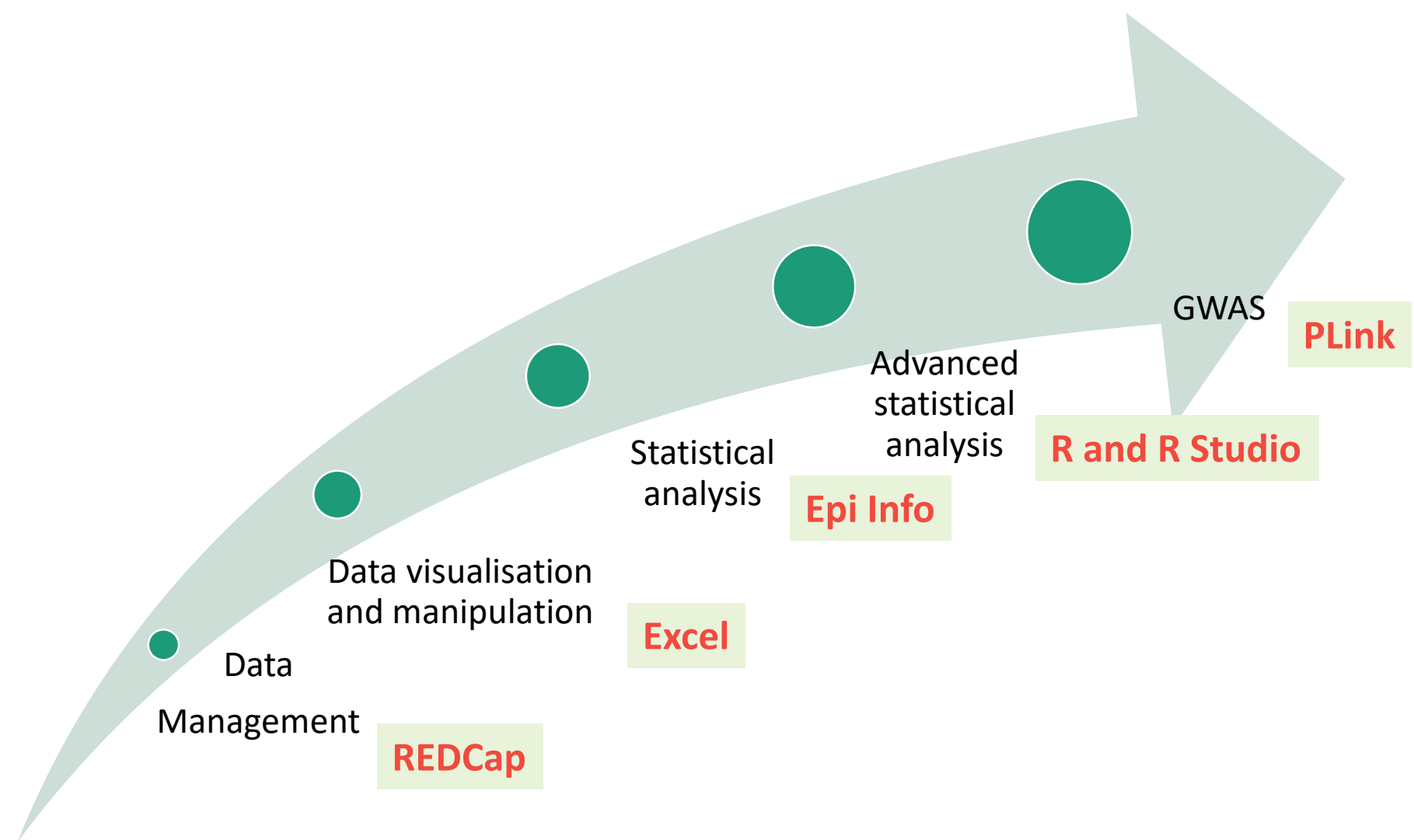


Promoting Research through ICT Excellence (PRICE) – North-South Collaboration

Partnership with University of Colorado Denver

- 4-member UZCHS team
 - Data manager (**Miriro**)
 - Statistician (**Vasco**)
 - Informatics Expert (**Dr Simbini**)
 - Mathematician (**Leckson**)
- Expertise in Research ICT
 - Manager of research informatics specialist team (**Deakyne**)
 - Active clinical informatics/research ICT user (**Dr Kao**)
 - Manager of high-performance computing cluster and multiple informatics courses (**Phang**)
- Long standing relationship through prior research training
 - MEPI: NECTAR and CHRIS – 2011-2016 (**Kao**)
 - Mentored 8 MMed scholar dissertations using ICT

Capacitating researchers to use ICT tools will enhance quality and quantity of biomedical research



Key Components of PRICE

1. Develop and deliver introductory workshops for researchers
2. Support creation of PRICE informatics experts (mentoring)
3. Establishment of mHealth capacity
4. 3-year program May 2015 to April 2018

PRICE program evaluation

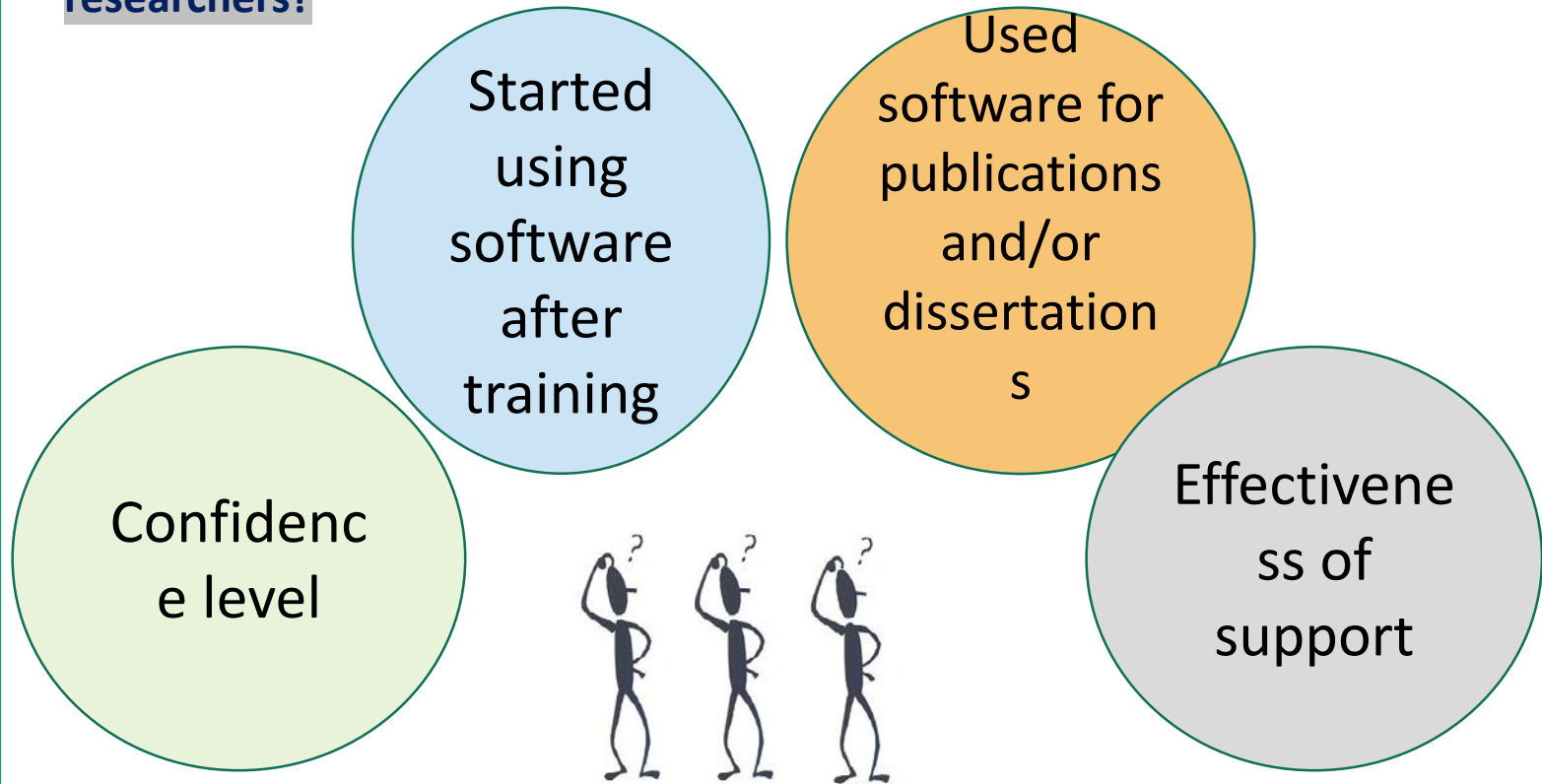
1

How effective was the mentoring relationship?



2

How good were the training workshops and mentorship of researchers?

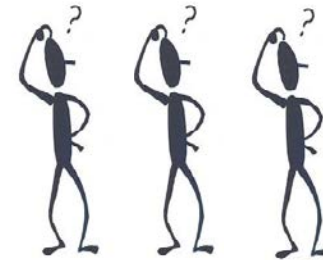


Started using software after training

Used software for publications and/or dissertations

Confidence level

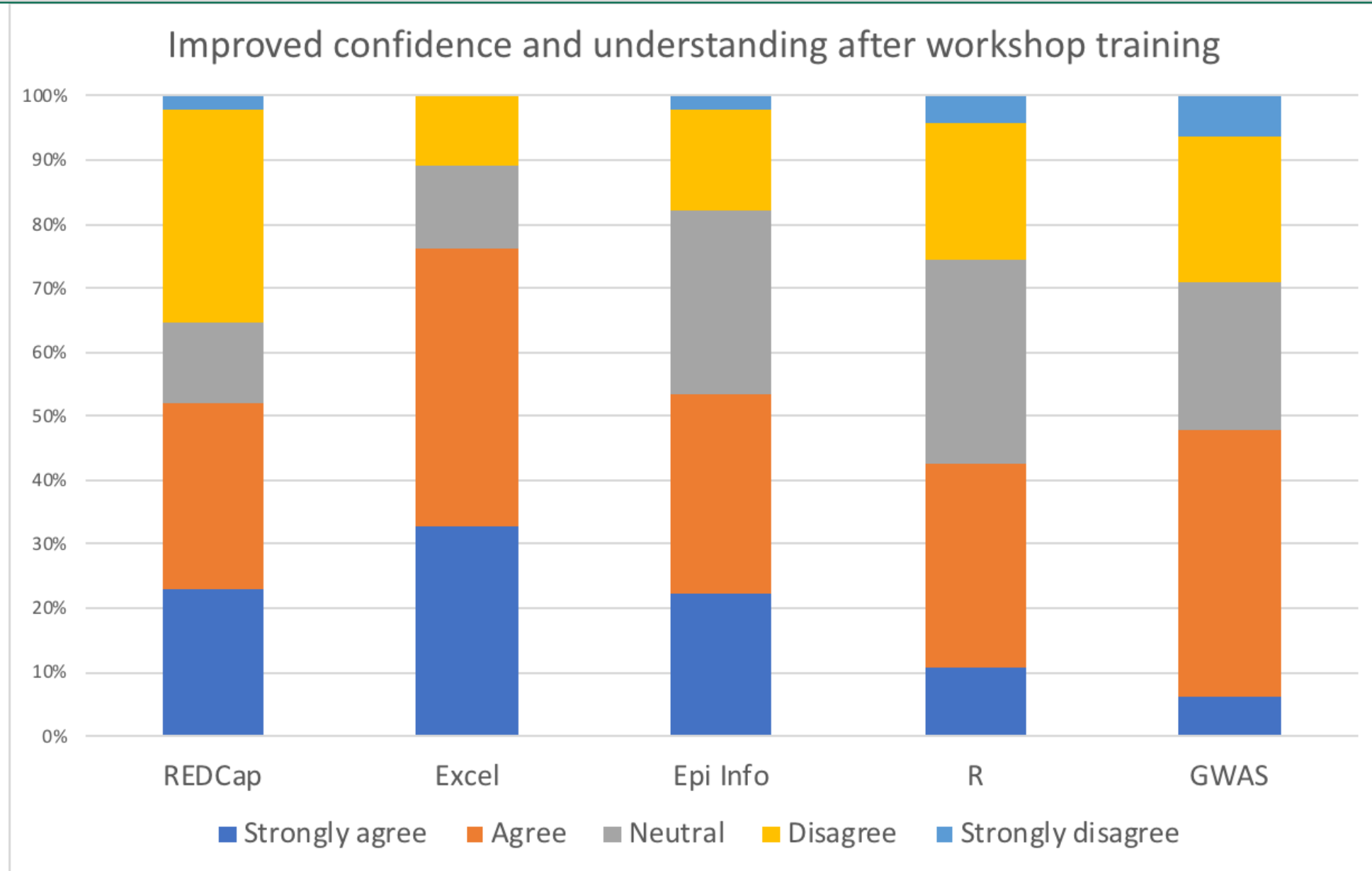
Effectiveness of support



Successes of the PRICE UZ team mentoring

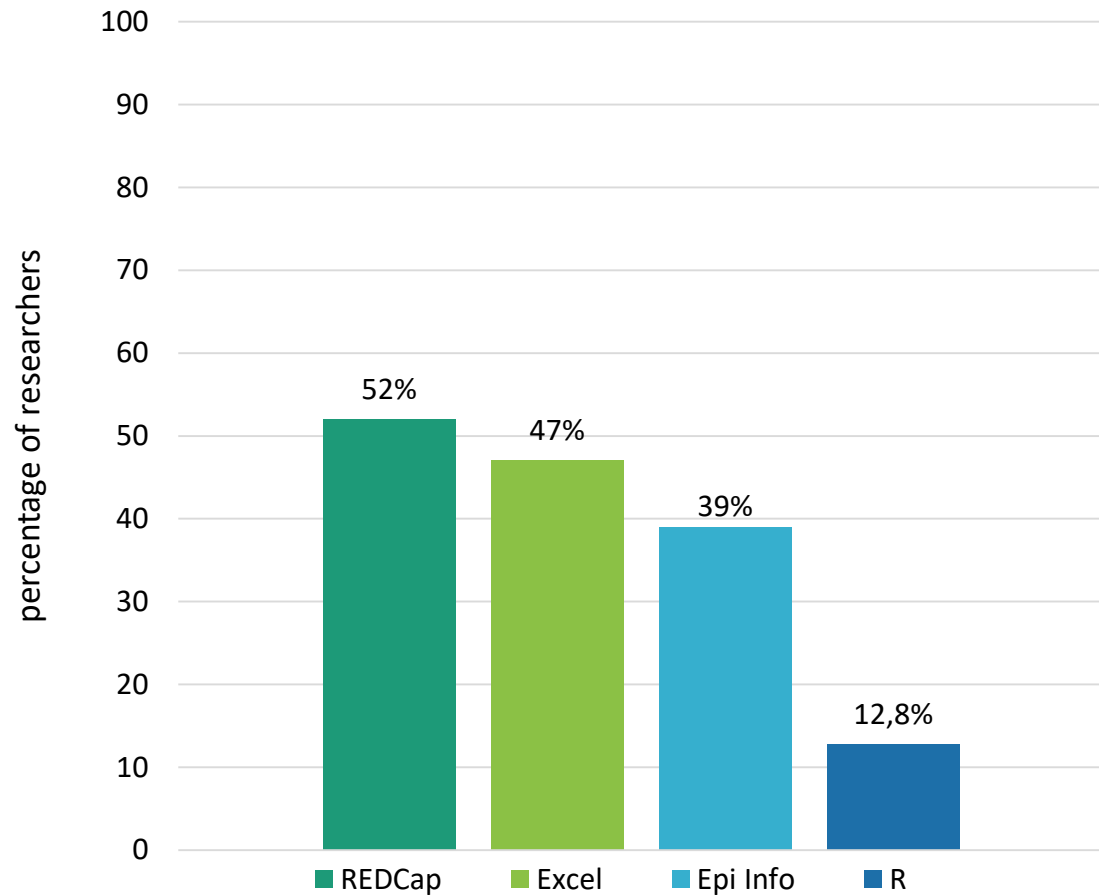
- Increased confidence in ICT tools use and training and support of faculty and student researchers.
- Enhanced knowledge and application of bioinformatics and health informatics.
- Introduced efficient management of informatics teams.
- Enabled application for future research ICT (e.g. mHealth) funding
- Expressed need longer/ongoing mentoring relationship

Researcher experiences

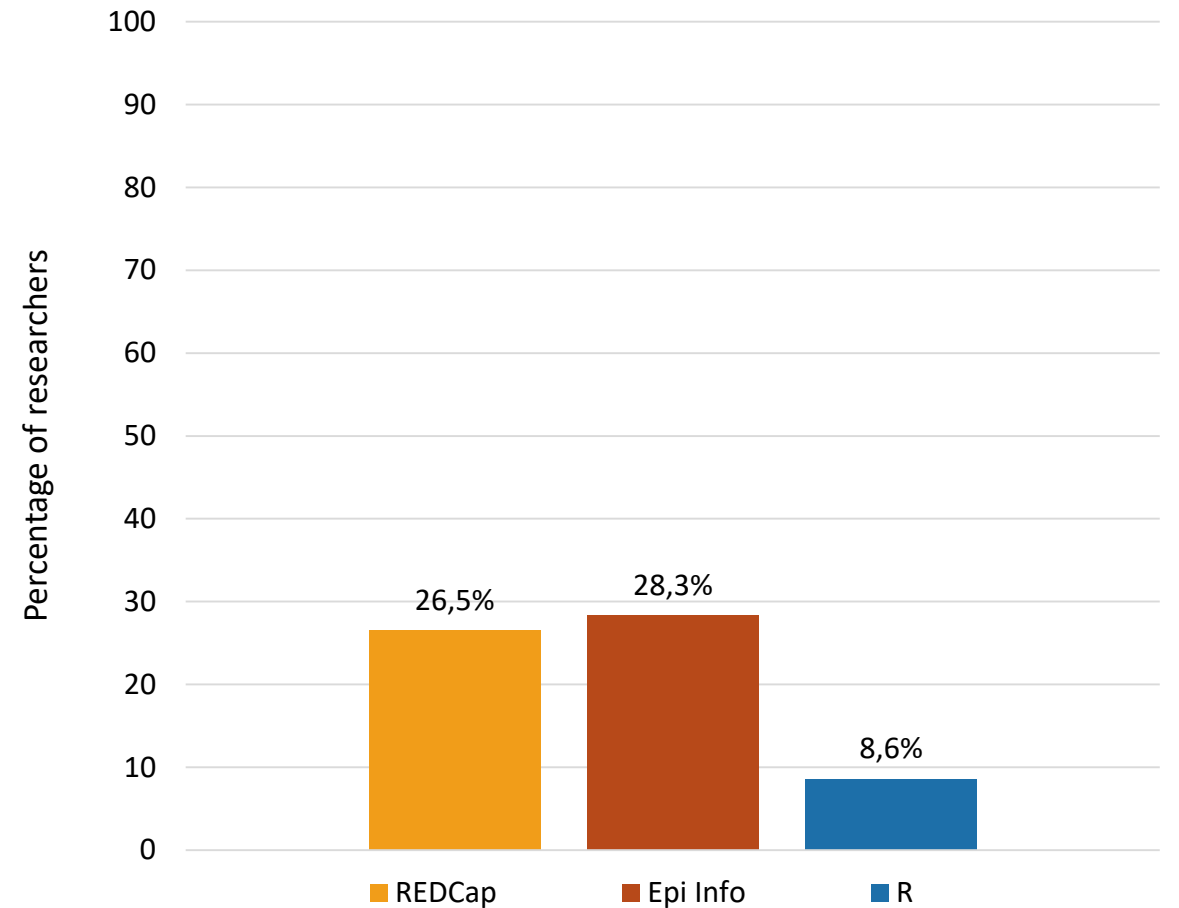


Researcher experiences

Researchers who started using software after training



Researchers who have used software for publications and/or dissertations

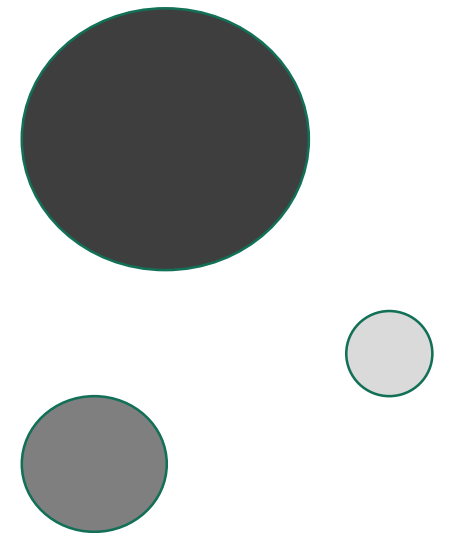


Challenges and how they were addressed

- Competing time demands
- Differences in research environment
 - Level of research
 - Independent researchers
 - Financial resources
- Sacrifice time outside of working hours
- High-level introductory sessions for GWAS and R Studio
- Immense initial support of researchers with the goal to nature independent researchers

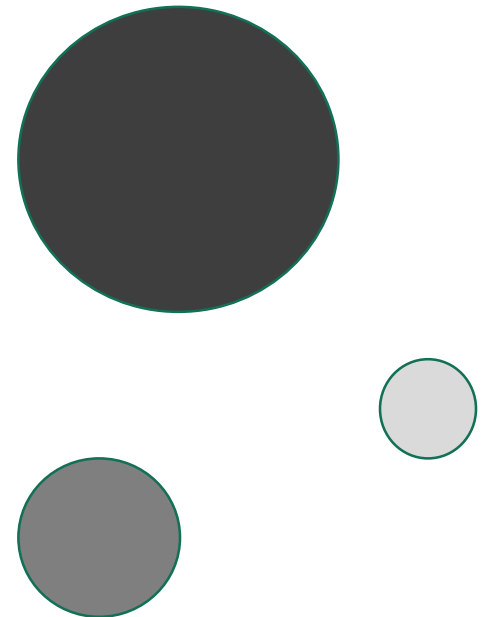
Next Steps

- Increase size and expertise of PRICE team
- Consider linking REDCap with other data sources such as EHR and translational databases
- “Increase number of annual workshops”
- “Allocate more time to training each tool”



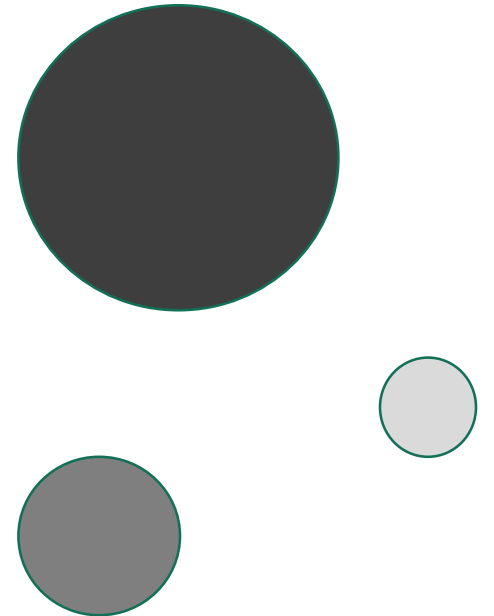
Sustainability

- Business model for continuity
- Lobby for university leadership support
- Funding opportunities for team
- Inclusion in grant proposals by other researchers to support work



Acknowledgements

- Funder- NIH
- UCD Partners
- PRICE team members
- PERFECT Program leadership and secretariat
- University of Zimbabwe leadership





Thank You

Ngiyabonga