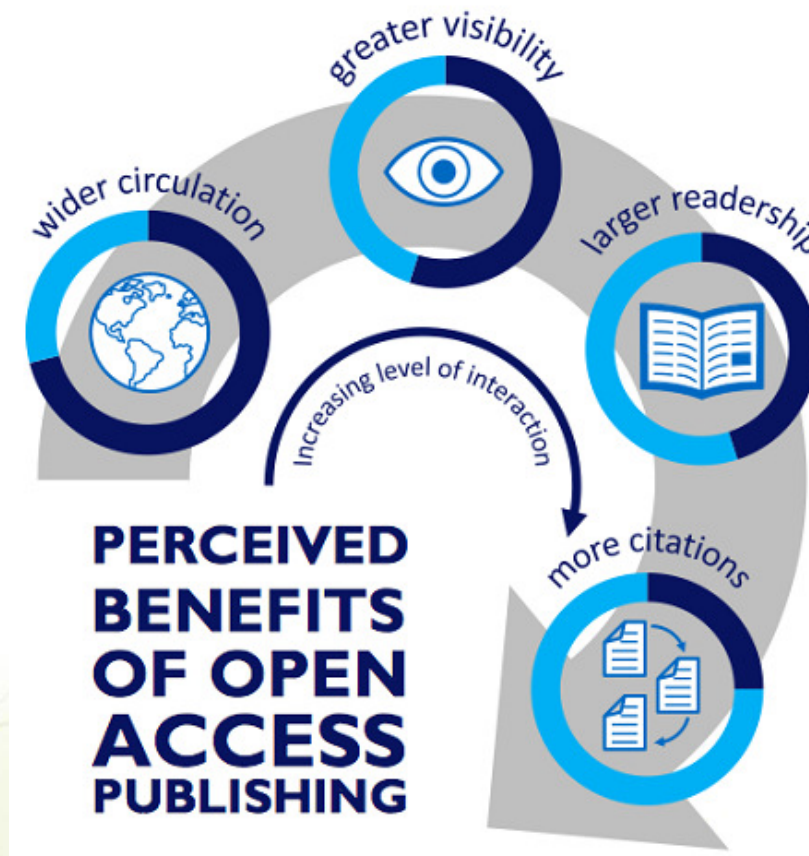


# An investigation of open access citation advantage through multiple measurements and across subject areas

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Promotor: Dr Heidi Prozesky  
Co-promoters: Prof Johann Mouton  
Dr Jaco Blanckenberg

# Link between OA and citation advantage



Graphic source: Taylor & Francis open access survey (2012) Exploring the views of Taylor & Francis and Routledge authors - edited

# Background

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- Difficulty investigating OACA
  - Citation and publication practices differ between subject areas
  - Various factors influencing number of citations
  - Different types of OA (e.g. self-archived, OAJ, hybrid OA)
  - Difficulty identifying OA articles
- New opportunity in 2015: data for OAJ based OA in WoS metadata

# Research Questions

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1. What percentage of articles are OAJ articles?
2. Do a higher percentage of OAJ articles than NOAJ articles receive at least one citation within two years after publication?
3. Do OAJ articles have a higher MNCS than NOAJ articles?
4. Are a higher percentage of OAJ articles than NOAJ articles among the highest cited percentile of articles?  
Percentiles investigated:
  - 1%
  - 5%
  - 10%

# Methodology: Sample and data collection

## Selection criteria

- Publication years
- Document types
- Languages
- Subject areas

## Data collection

- Access status
- Publication year
- Subject areas
- NCS based on 2 year citation window

# Methodology: Analysis

## Analysis structure

WoS

Per subject area

Whole dataset

Individual years

Whole dataset

2014

## Statistical methods

1. Absolute differences
2. Statistical significance
3. Effect size

Preliminary findings

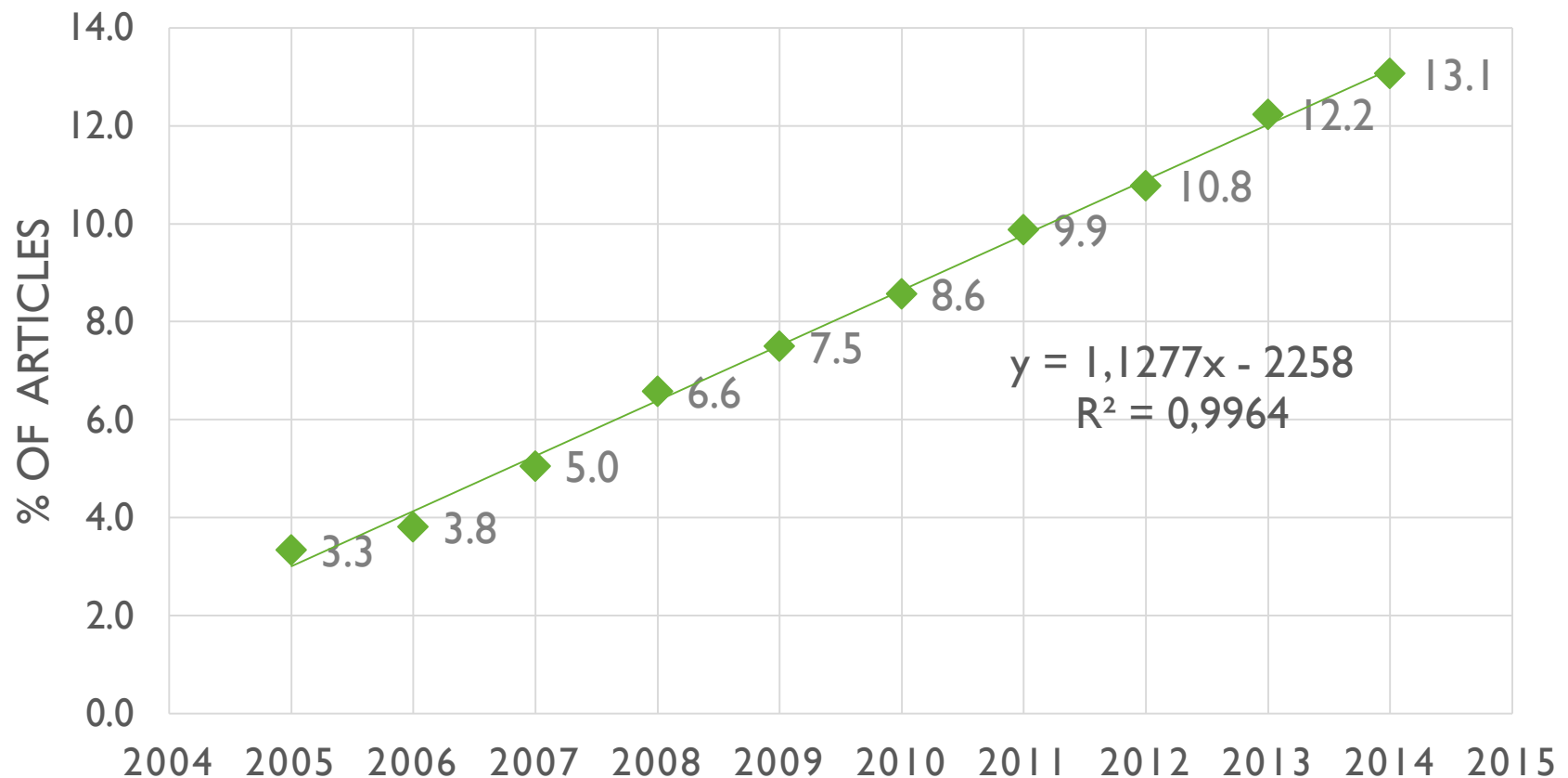
# Answering the research questions

Research question 1

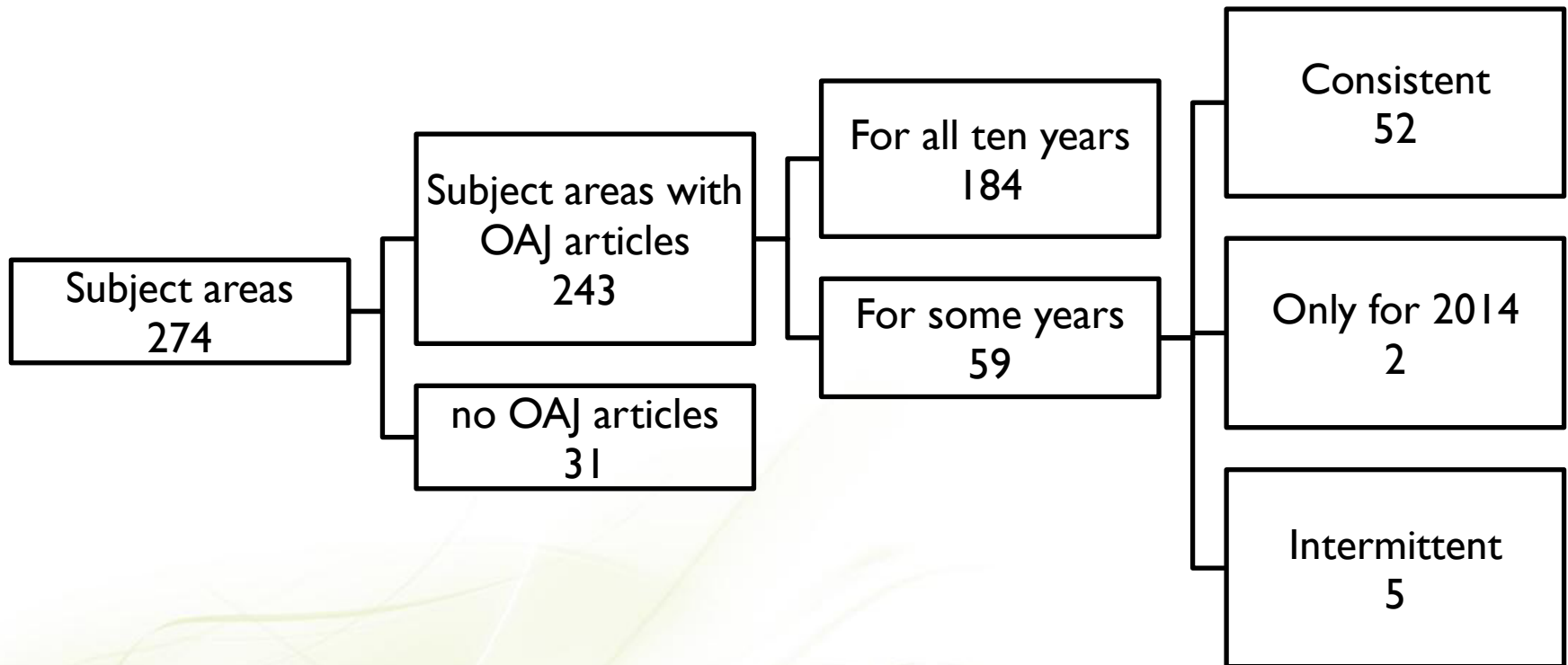
What percentage of articles are OAJ articles?



# Percentage of all articles that are OAJ articles



# Subject areas



Research question 2

Do OAJ articles have a higher MNCS than  
NOAJ articles?

# Do OA journal articles have a higher MNCS?



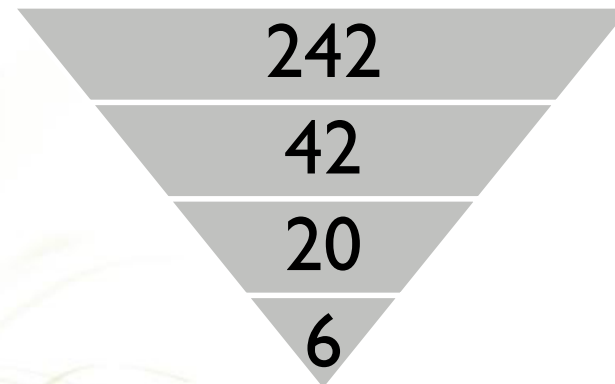
# Subject area results: MNCS

## OACA Whole dataset

- Primary Health Care
- Virology

## OACA 2014

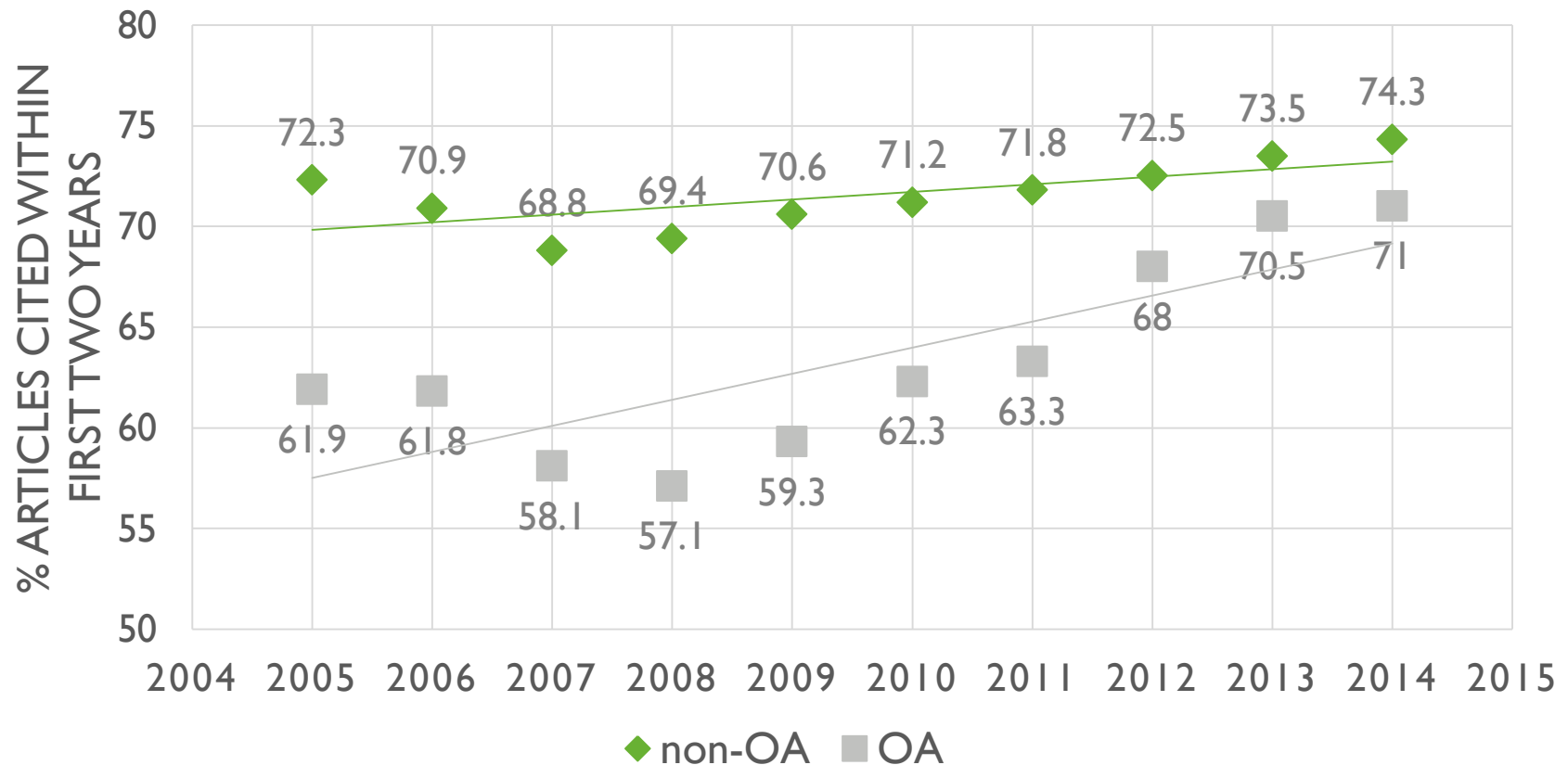
- Industrial Relations & Labor
- Andrology
- Primary Health Care
- Virology
- Tropical Medicine
- Toxicology



Research question 3

Do a higher percentage of OAJ than NOAJ articles receive at least one citation within two years?

# Percentage of OAJ and NOAJ articles cited within the first two years after publication



# Subject area results: cited within 2 years

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## OACA Whole dataset

- Engineering, Petroleum
- Materials Science, Paper & Wood
- Optics
- Primary Health Care

## OACA 2014

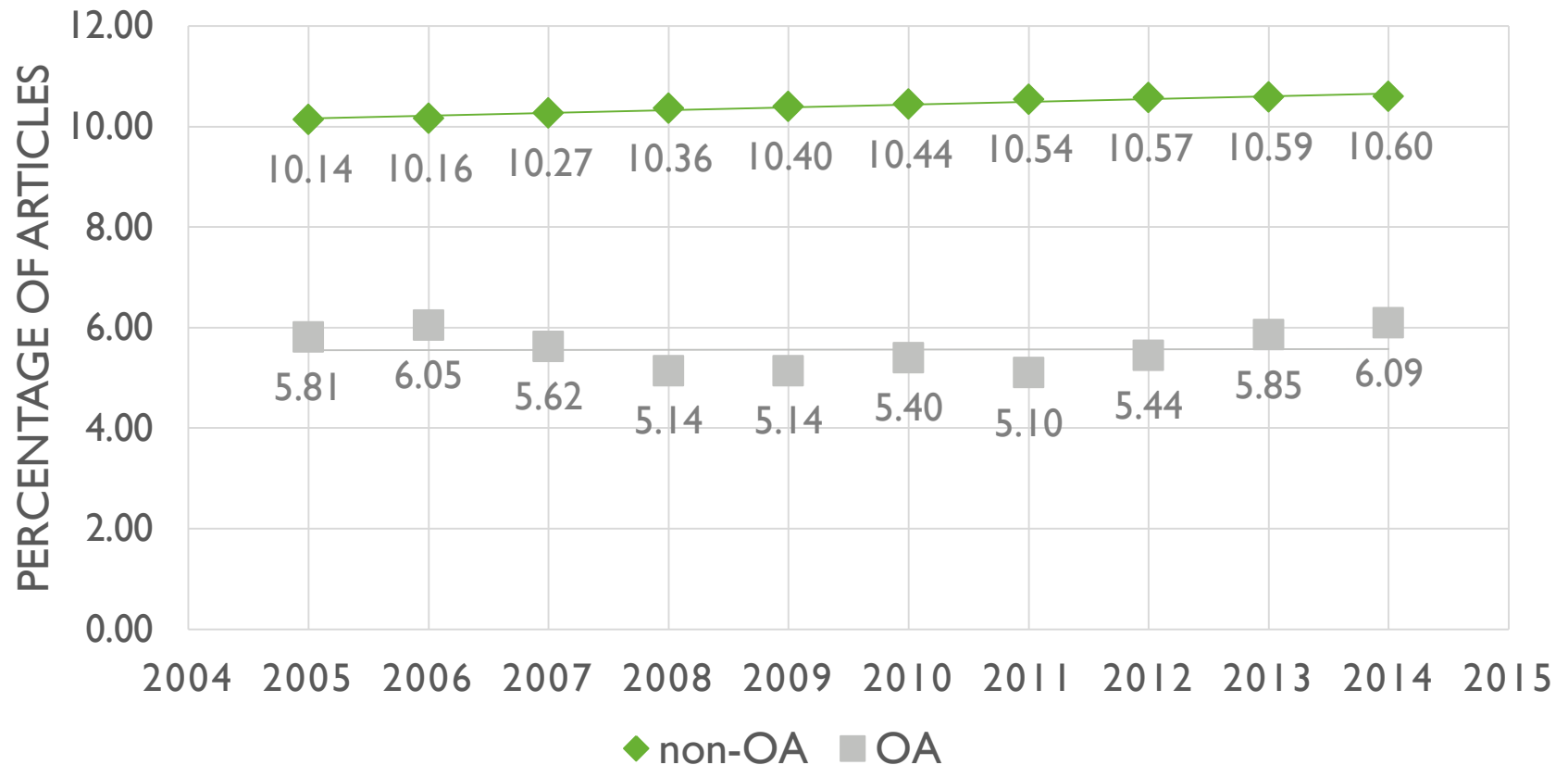
- Industrial Relations & Labor
- Andrology
- Tropical Medicine
- Physics, Nuclear
- Optics
- Parasitology



Research question 4

Are a higher percentage of OAJ articles than NOAJ articles among the highest cited?

# Percentage of OAJ articles among the 10% most cited



# Subject area results: Highest cited 10%

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## OACA Whole dataset

- Optics
- Virology
- Primary Health Care

## OACA 2014

- Andrology
- Biology
- Industrial Relations & Labor,
- Life Sciences & Biomedicine – Other Topics
- Tropical Medicine
- Virology

# General observations

The background of the slide is a solid dark blue. Overlaid on this are several thin, flowing, wavy lines in a light green or yellowish-green color. These lines originate from the bottom left and sweep upwards and to the right, creating a sense of movement and depth. The lines vary in thickness and curvature, some appearing as single strokes while others are more complex, overlapping patterns.

# Closing remarks

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- Increase in OAJ articles likely due to new journals being included in WoS
- Tag retroactively applied to articles – causes complications
- Primary Health Care appear in 4 of the 5 measurements

# Thank you

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Questions and suggestions welcome