



Impact of a youth-  
parent asset transfer  
program on mental  
health, food  
security, and school  
attendance

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# Context of Eastern DR Congo

- Prolonged insecurity
- Long-term humanitarian aid – what about development?
- Economic instability and extreme poverty (living on less than \$2 day)
- Limited infrastructure, including health and social services
- GBV associated with conflict
- Household violence (IPV, harsh discipline, etc.)





# Community Driven Solutions

Rural villagers express a desire:

- Economic stability – productive assets (livestock/animals)
- Programs that engage men and women in economic activities
- Rebuild families and communities after trauma experiences
- Improve family health and future opportunities
- Sustainable programs



# Productive assets are important for economic security, health and gender equity

- A productive asset transfer program, Pigs for Peace (PFP), increased economic stability, improved subjective health and mental health in conflict-affected villages in rural DR Congo.<sup>+</sup>
- Married/partnered men and women reported a reduction in perpetration and victimization in all forms of intimate partner violence, although not significantly different from the control group (issue of statistical power).

<sup>+</sup>Glass et al., (2017). Randomized controlled trial of a livestock productive asset transfer programmed to improve economic and health outcomes and reduce intimate partner violence in a post conflict setting. *BMJ Global Health*



# What about the Children?

- Examine relationship between livestock/animal and adolescent (10-15 years) outcomes with 479 parent/adolescent dyads
  - Having livestock/animal household assets was significantly associated with better mental health ( $p=.005$ ), better outlook on life (.003), and less experienced stigma ( $p=.007$ ) for adolescents.
  - Relationships remained after controlling for parents owing money, perceived wealth, and food security. They also remained after controlling for parent PTSD and parent experience/use of controlling behavior (e.g. isolation, restrict contact with family/friends).
  - The interaction of livestock/animal assets by sex was not significant for any of the outcomes indicating that livestock/animal assets has a similar effect for boys and girls.



# Rabbits for Resilience: Youth Productive Asset Program

- Comparative effectiveness trial
- 10 villages in rural eastern DRC (same villages as PFP)
  - 503 adolescents aged 10-15 years
  - Change over time in health, school attendance, food security



# Demographic Characteristics

Baseline (n=503)	Pigs Only (n=171)	Pigs + Rabbits (n=167)	Rabbits Only (n=171)
Percent Female	58.5%	52.4%	53.3%
Guardian is a parent	93.0%	94.0%	95.9%
Enrolled in school	90.6%	89.8%	90.1%
Age			
10-11 years	33.9%	39.5%	36.5%
12-13 years	39.8%	30.0%	35.9%
14-15 years	26.3%	30.5%	27.6%
Missed $\geq 3$ days of school in past month	30.5%	36.4%	44.0%
Food Security M(SD), range of 0-12	3.4 (1.9)	3.0 (1.8)	3.1 (1.6)

# Retention by Group

	Pigs Only	Pigs + Rabbits	Rabbits Only
Baseline (n=503)	171	167	171
12 months (n=434)	144	147	143
24 months (n=443)	144	155	144

12 month retention = 85.3%  
24 month retention = 87.0%



# Adolescent Trauma Events

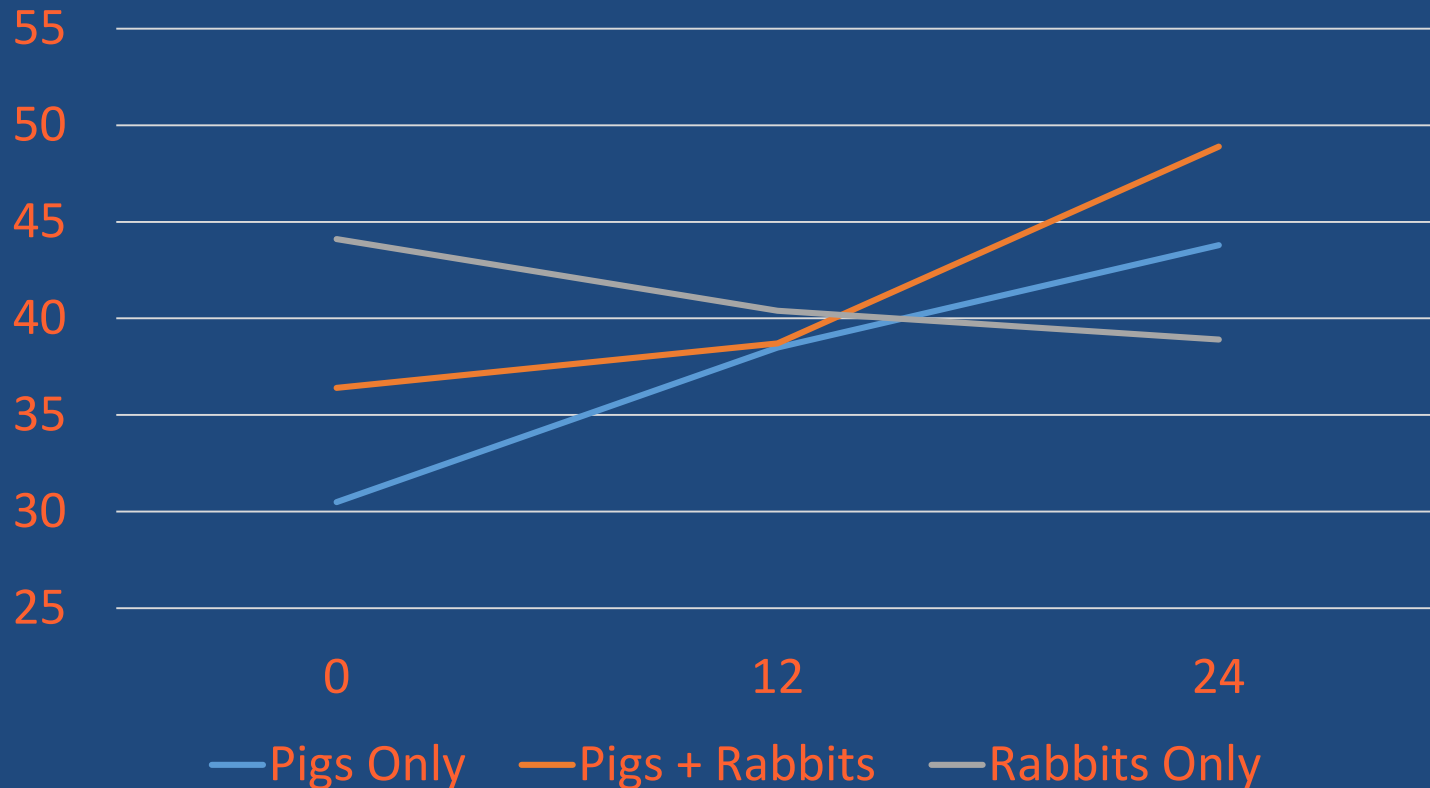
<b>Lifetime</b>	<b>Percent</b>
<b>Lack of food or water</b>	48.9%
<b>A bad health condition without access to healthcare</b>	48.7%
Lack of shelter	8.8%
<b>Severe injuries</b>	<b>16.1%</b>
Was in the middle of battles	9.4%
Been a victim of brainwashing	9.4%
Was about to die	14.8%
Separation of members of their family	11.0%
<b>Murder of a family member or friend</b>	<b>42.7%</b>
Was tortured or assisted in a torture	6.4%
Death of a family member of friend	11.2%

M (SD) events = 2.4 (2.1)

# Statistical Analyses

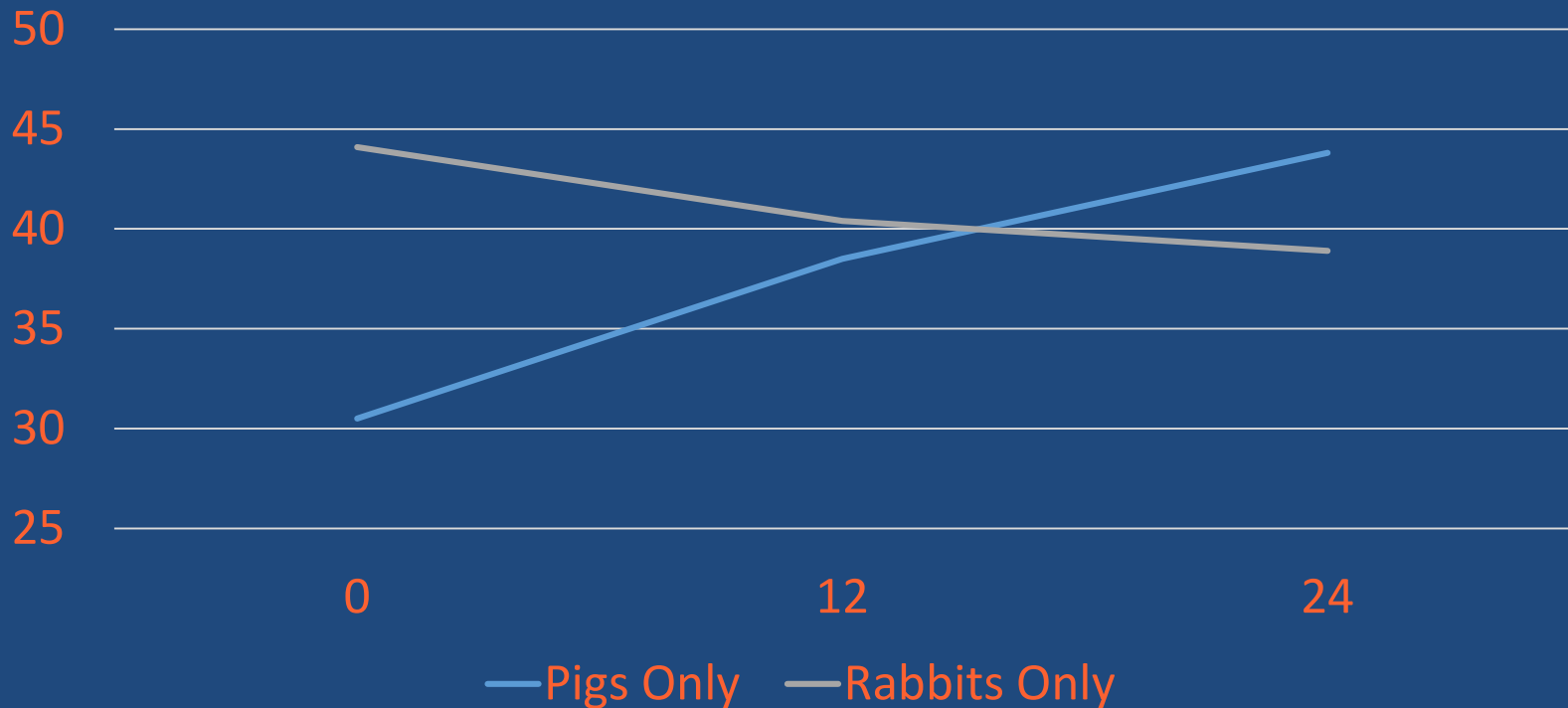
- Intent-to-treat analysis
- Generalized Estimating Equations (GEE)
  - Uses all available data
  - Does not require complete data at all time points
- Examined the difference in the change over time between the 3 groups
  - Group by time interaction

# Percent of Youth Missing 3 or More Days of School in Past Month





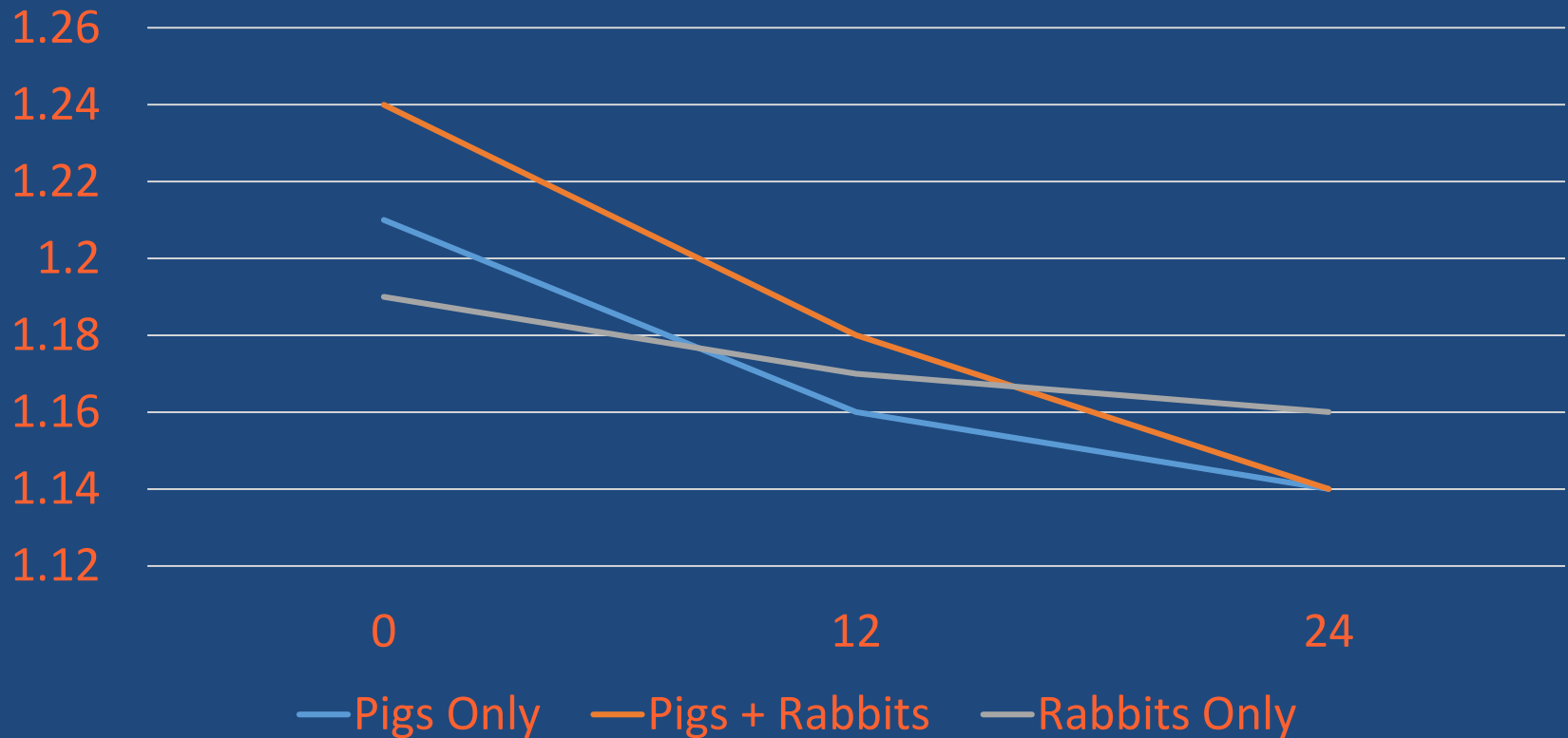
## Percent of Children Missing 3 or More Days of School in Past Month



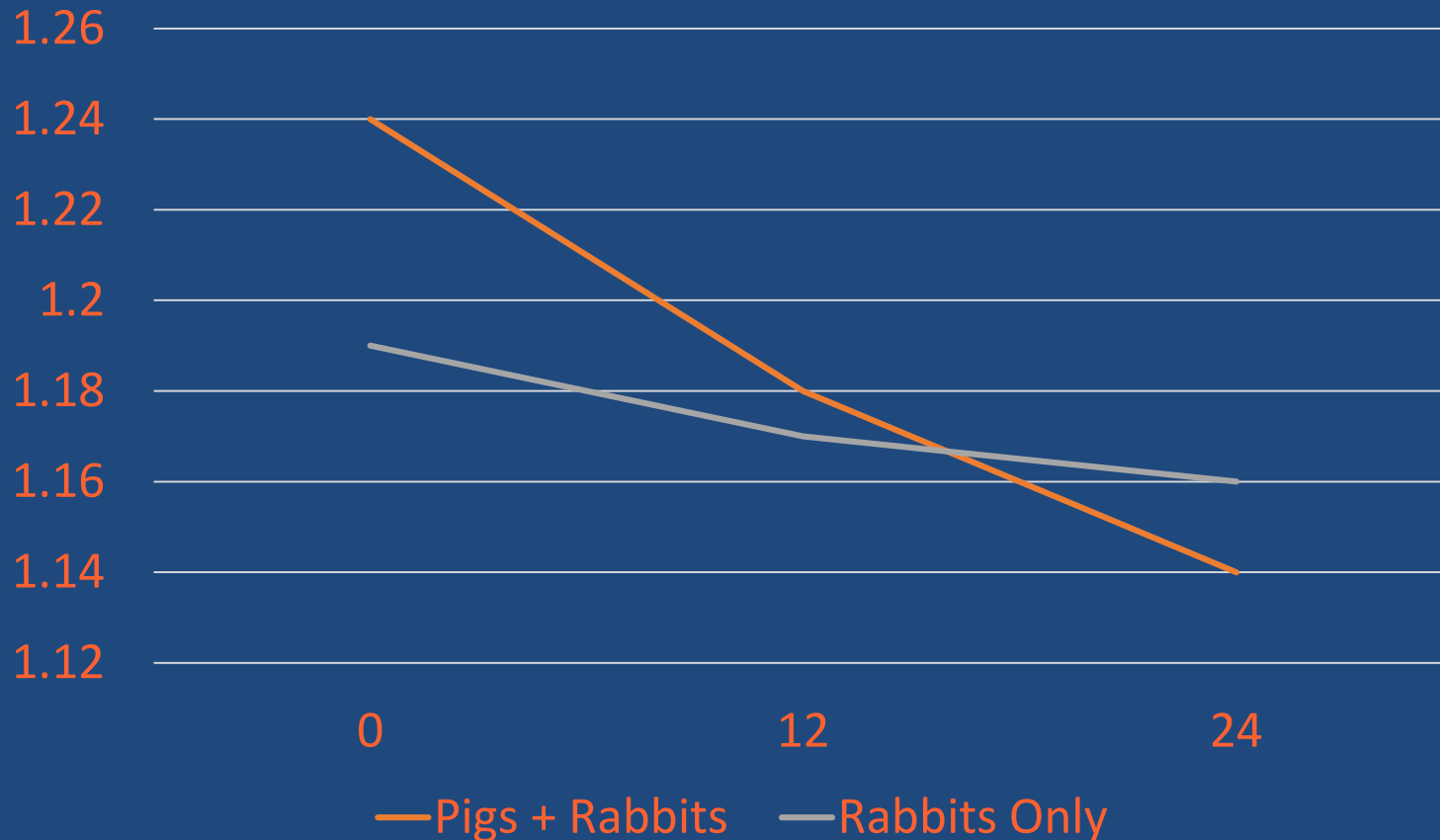
Rabbits only group had a greater decline in the % of youth missing 3 or more days of school in past month compared to the Pigs only group ( $p=.009$ ).

# Externalizing Behavior

(e.g. Acting out, being bad, rude, disrespectful)



# Externalizing Behavior

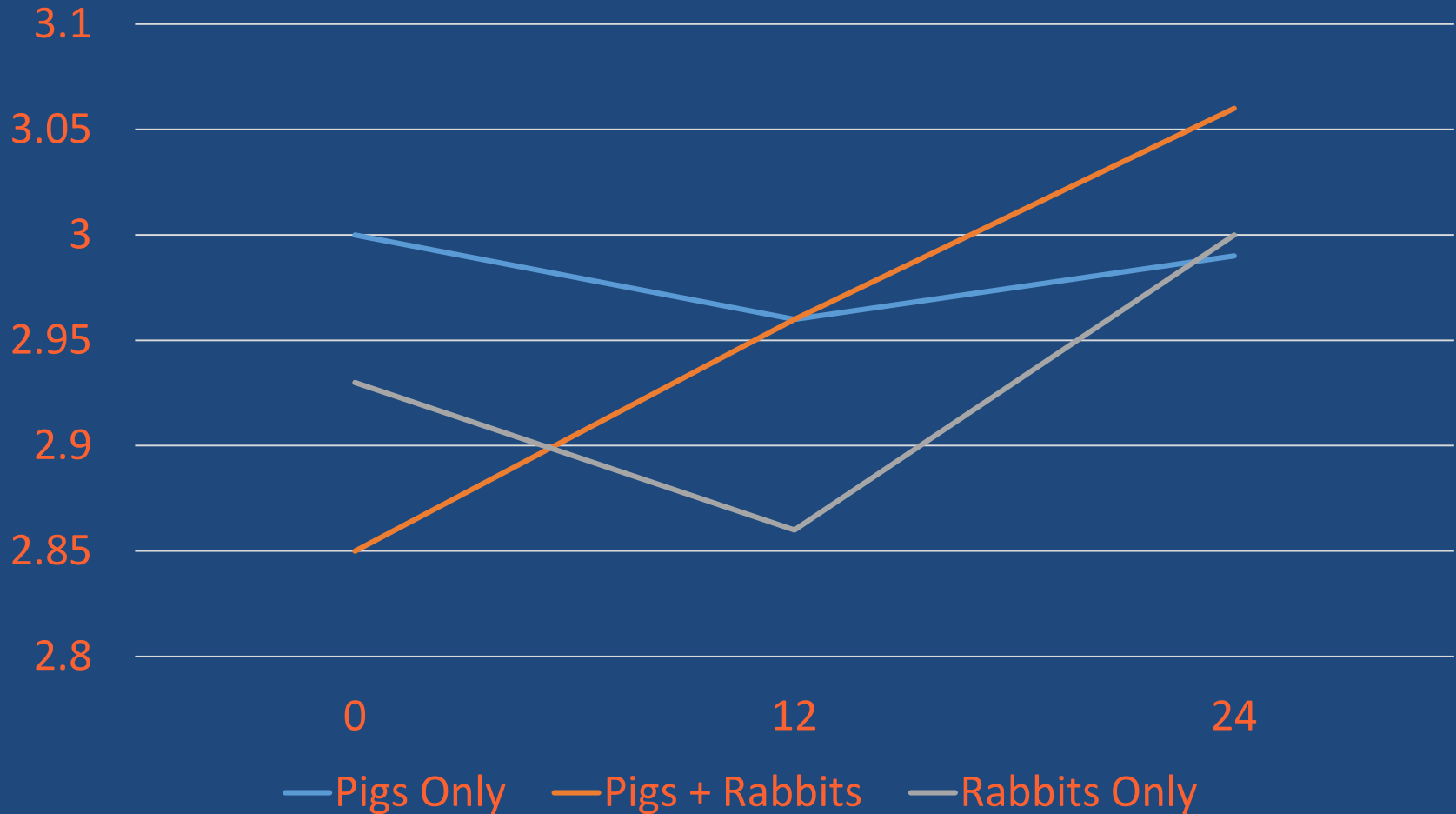


Youth in the Pigs + Rabbits group had a greater decline in externalizing behavior (e.g. acting out, rude and disrespectful) than youth in the Rabbits only group (n= 033)

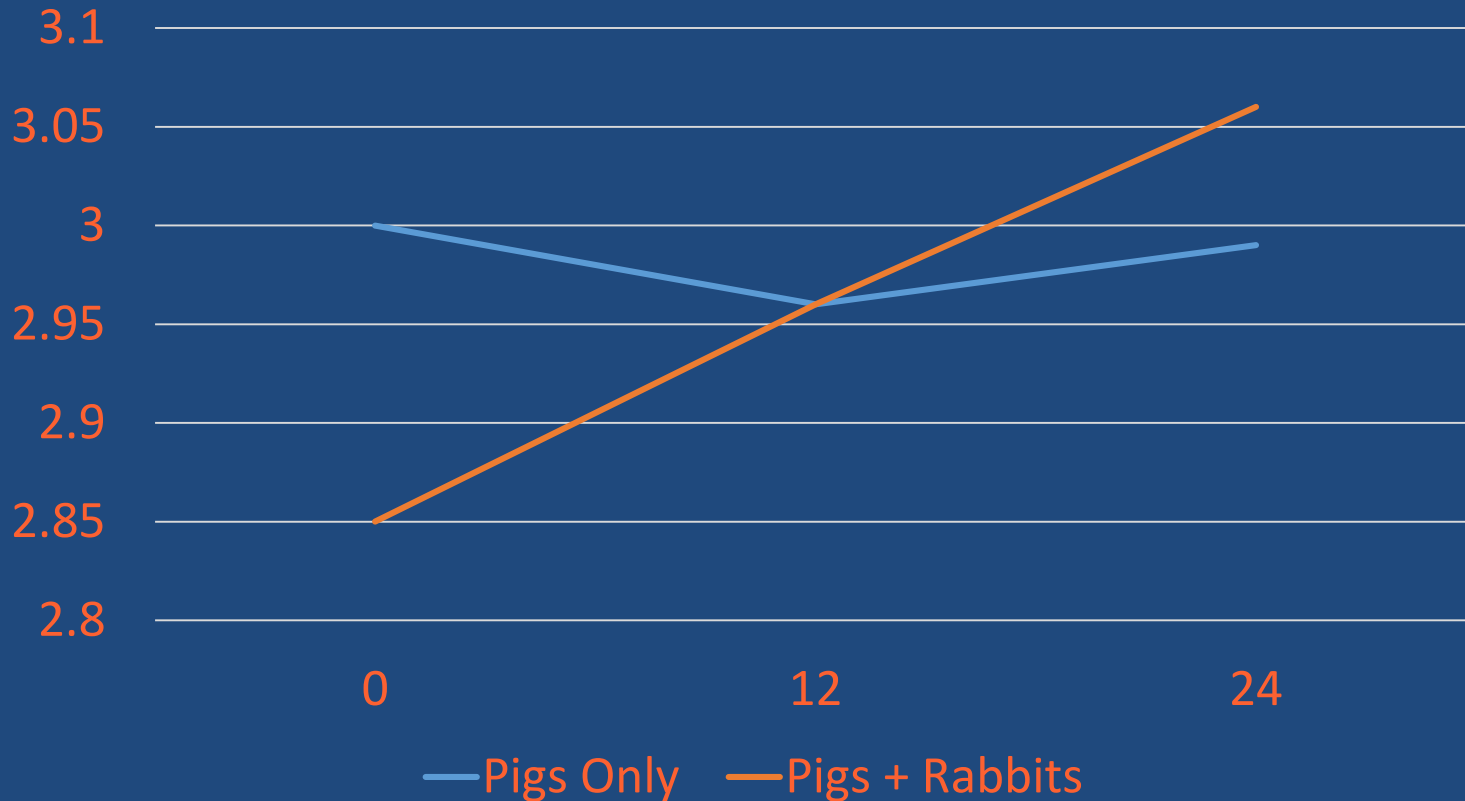


# Prosocial Behavior

(e.g. helping others, sharing, empathy)



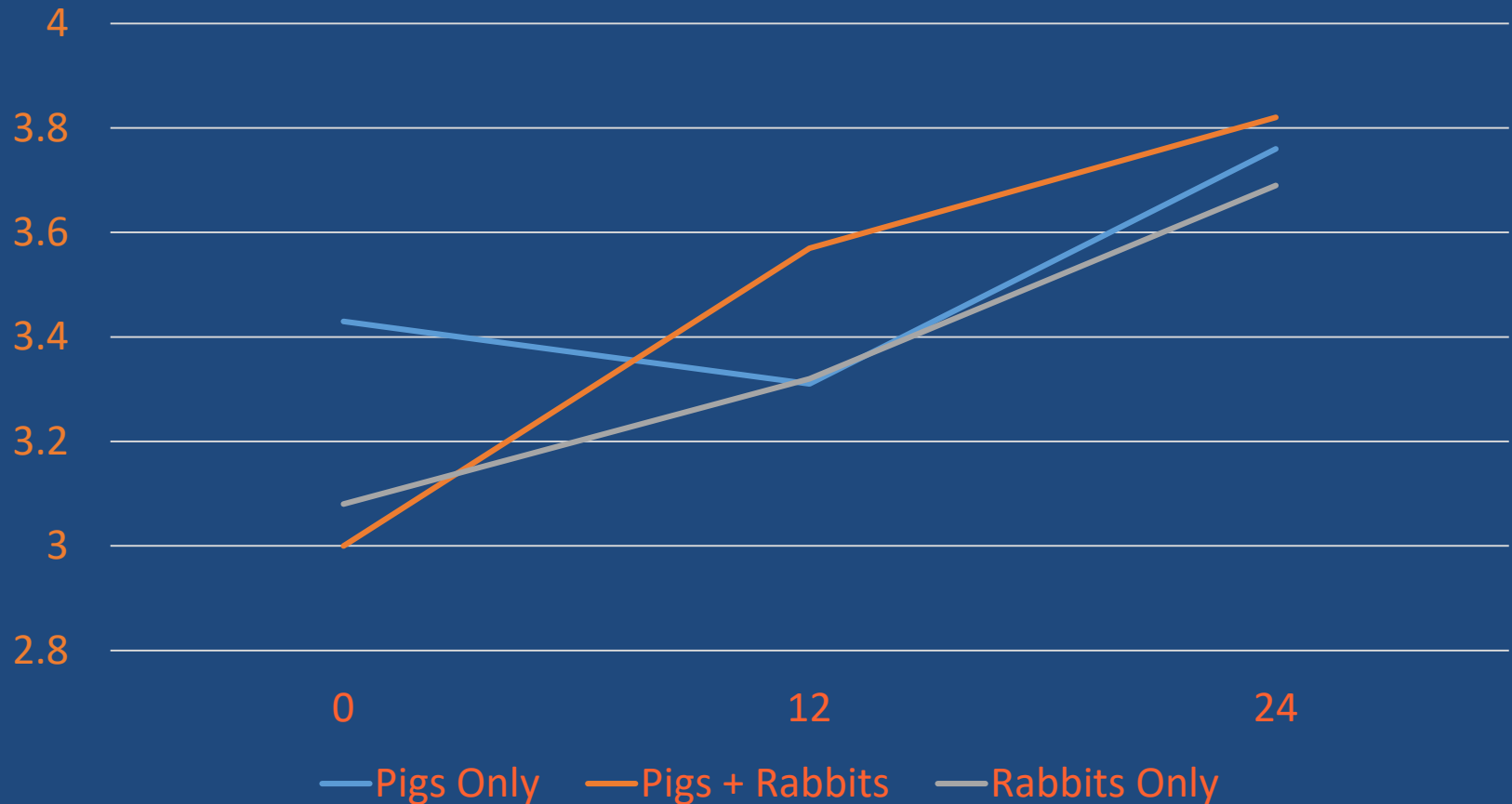
# Prosocial Behavior



Youth in the Pigs + Rabbits group had a greater improvement in prosocial behavior than youth in the Pigs Only group (p=.011).

# Food Security

(e.g. diversity in past 24 hours)



Food security improved for all groups ( $p < .001$ )



# Rabbits for Resilience







# Food Security

Household Dietary Diversity Score Number of food groups consumed in the last 24 hours (higher score is better diversity, 0-12)

- Cereals
- Root and tubers
- Vegetables
- Fruits
- Meat/poultry
- Eggs
- Fish and seafood
- Legumes/nuts
- Milk and milk products
- Oils/fats
- Sugar/honey
- Miscellaneous