

How Feedback Leads to Sustained Adoption of Cleaner Cooking

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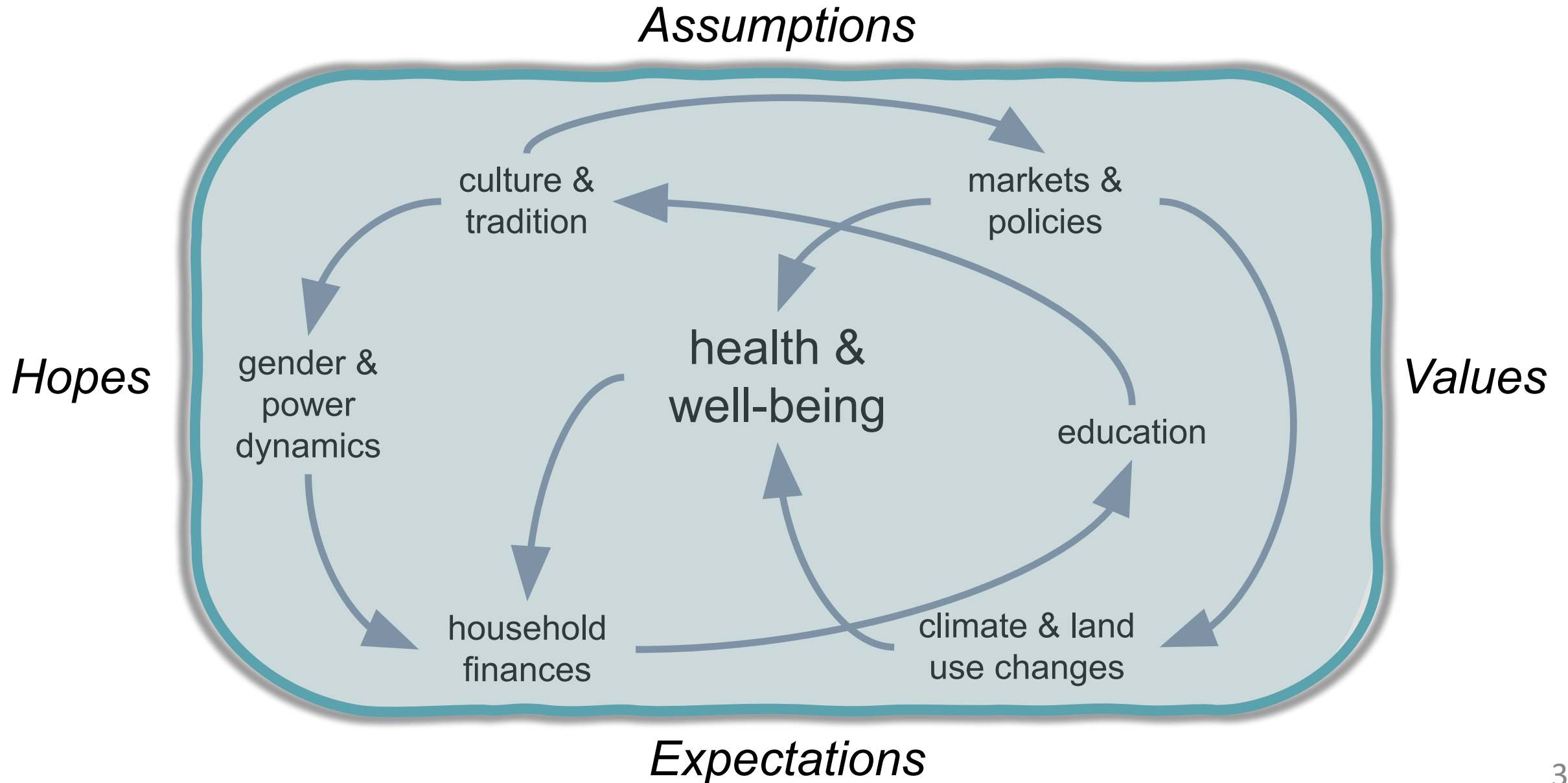
Acknowledgements

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(Civil & Env Engr Dept, USF)

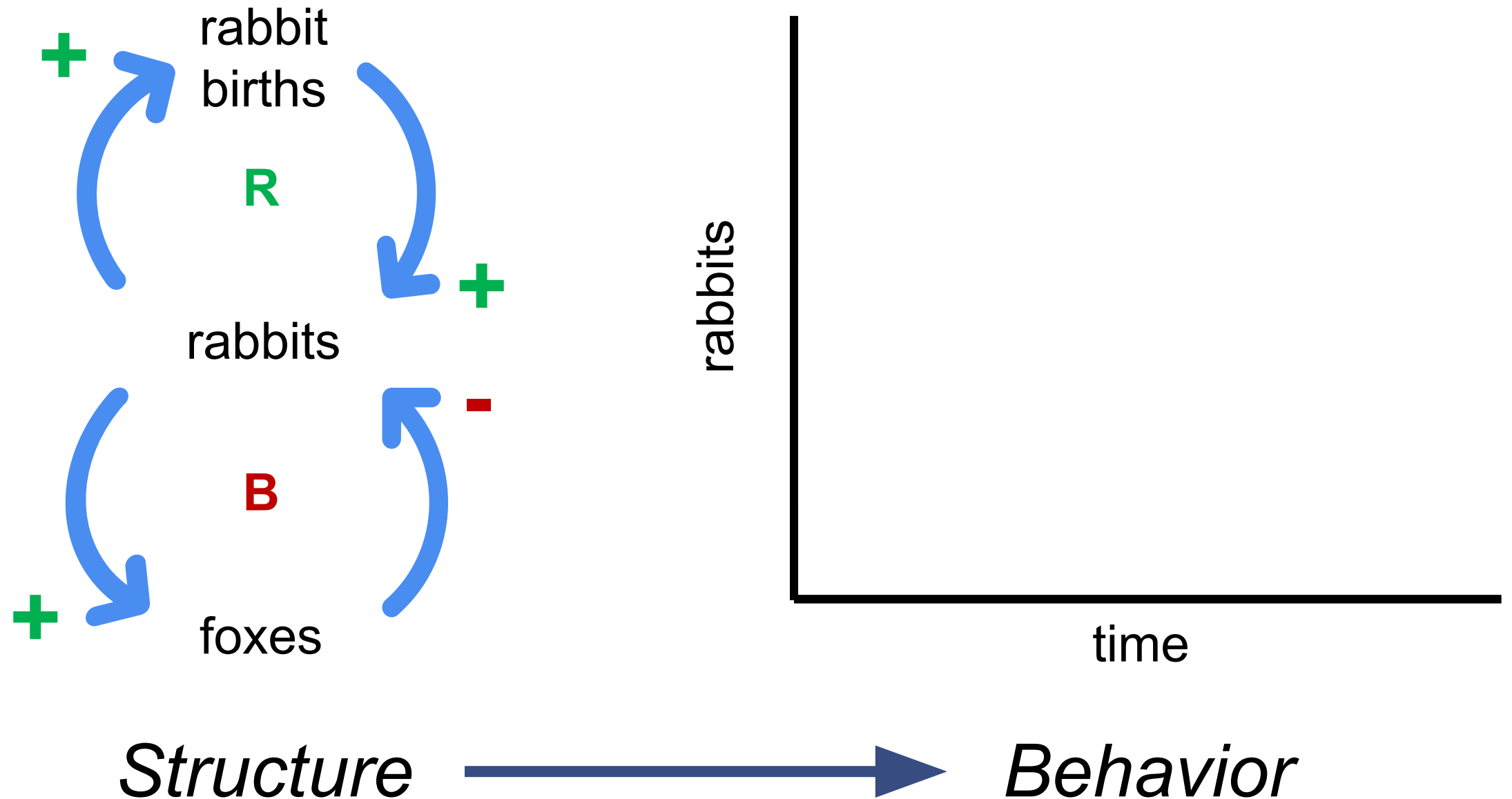


National Science Foundation
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Complexity in Environmental Health

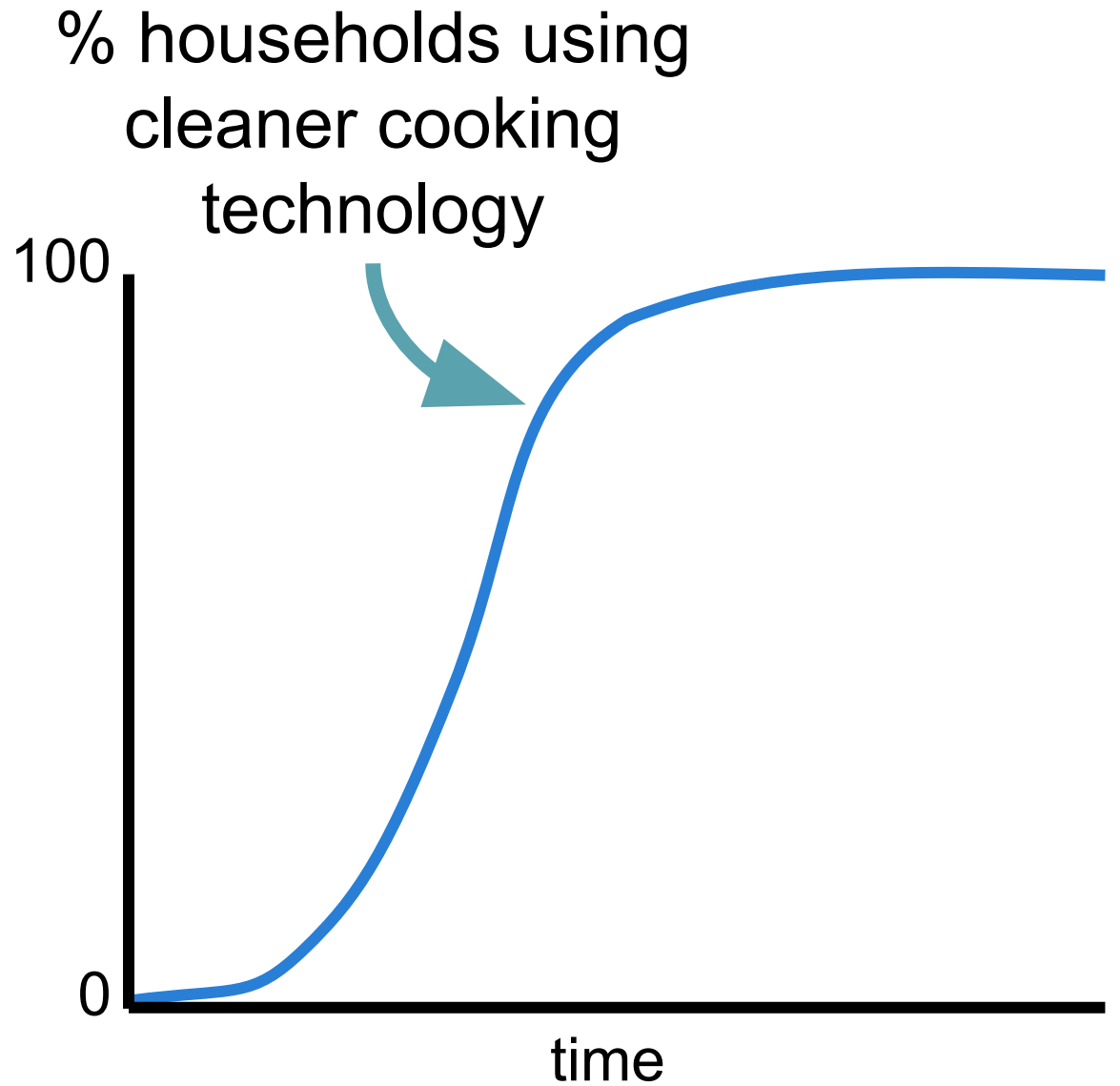


Intro to System Dynamics – Rabbits & Foxes

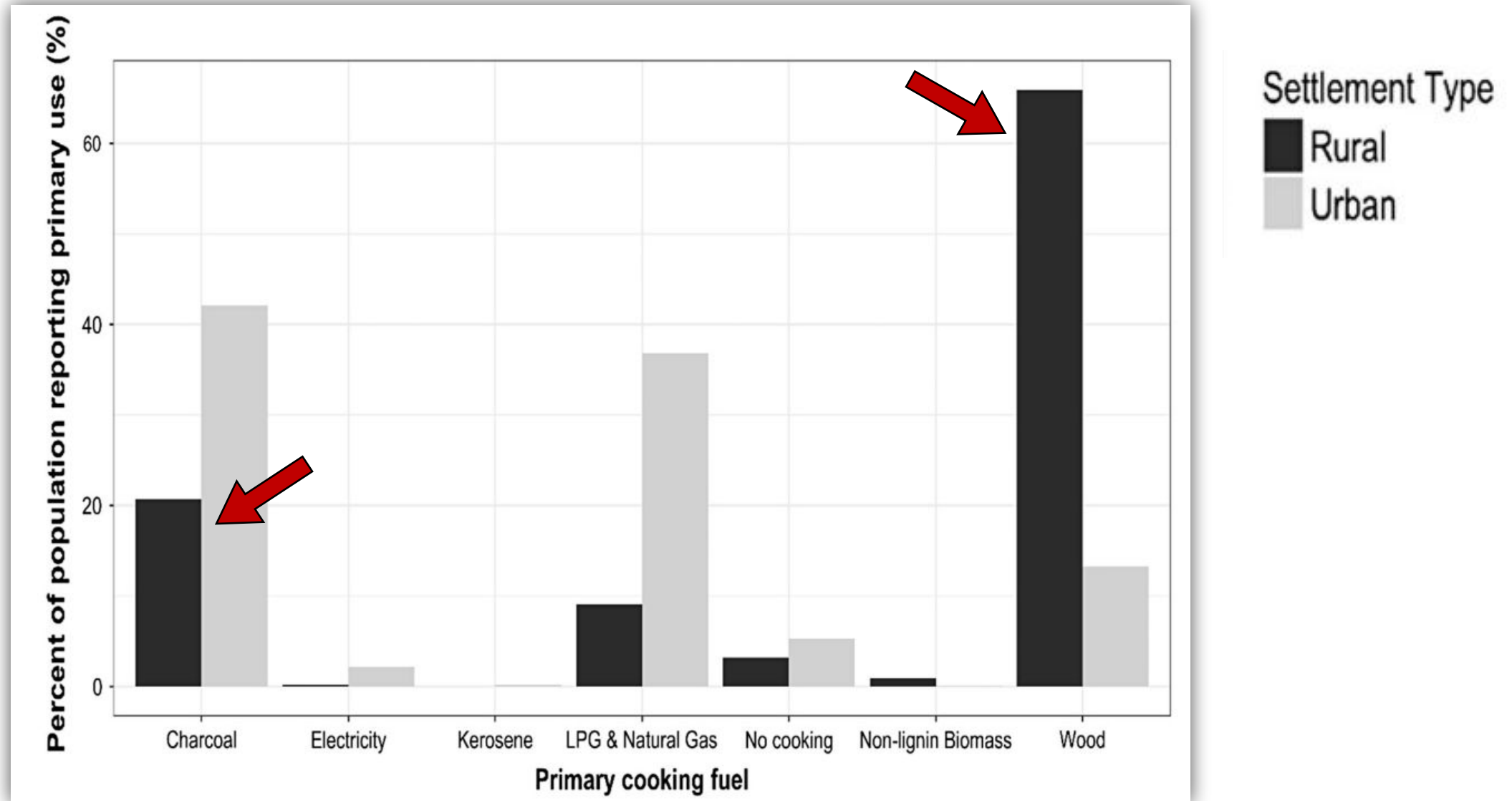


What structures lead to sustained cleaner cooking?

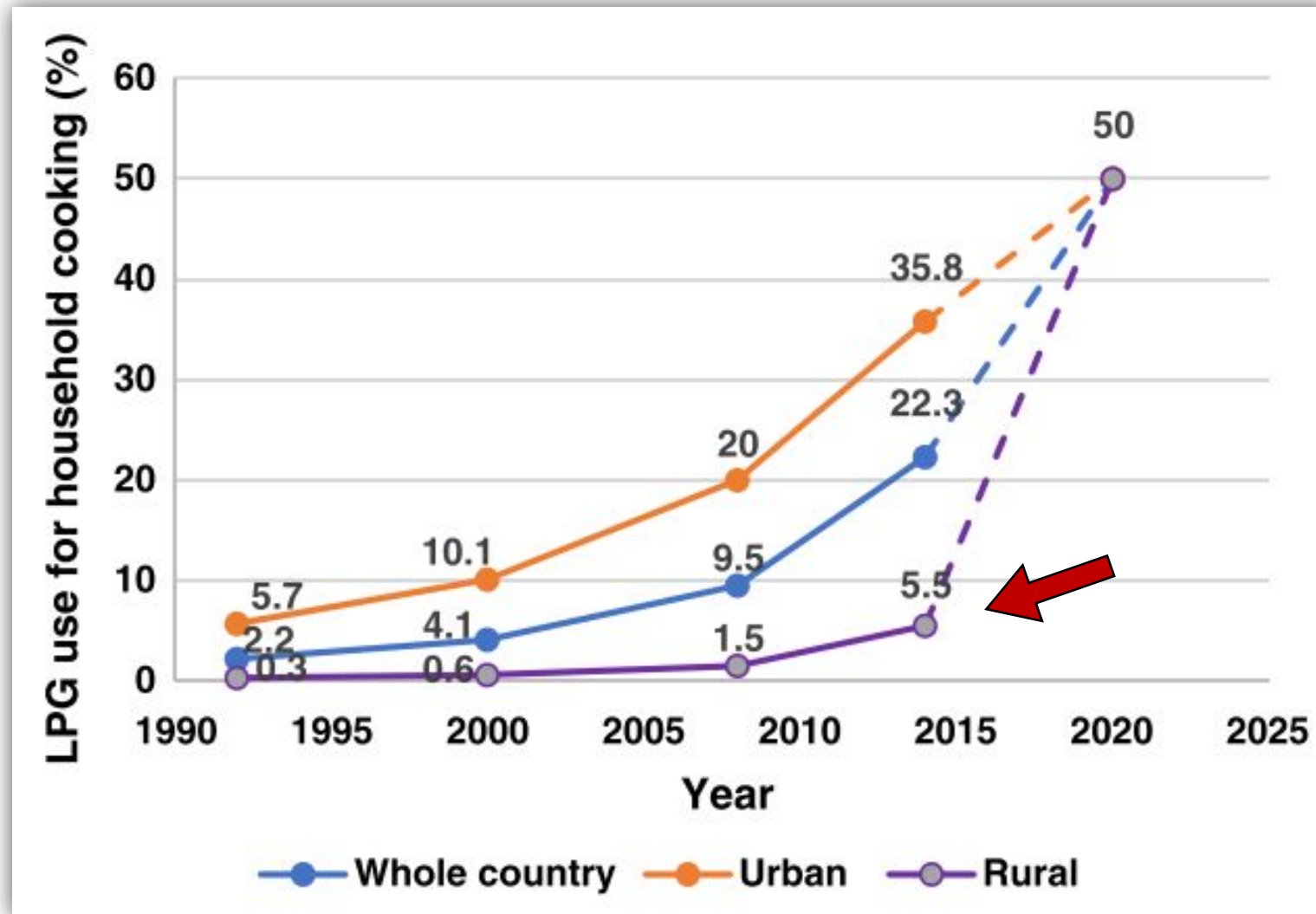
?
Structure
?



Case Study – Rural LPG Promotion Program, Ghana



Case Study – Rural LPG Promotion Program, Ghana

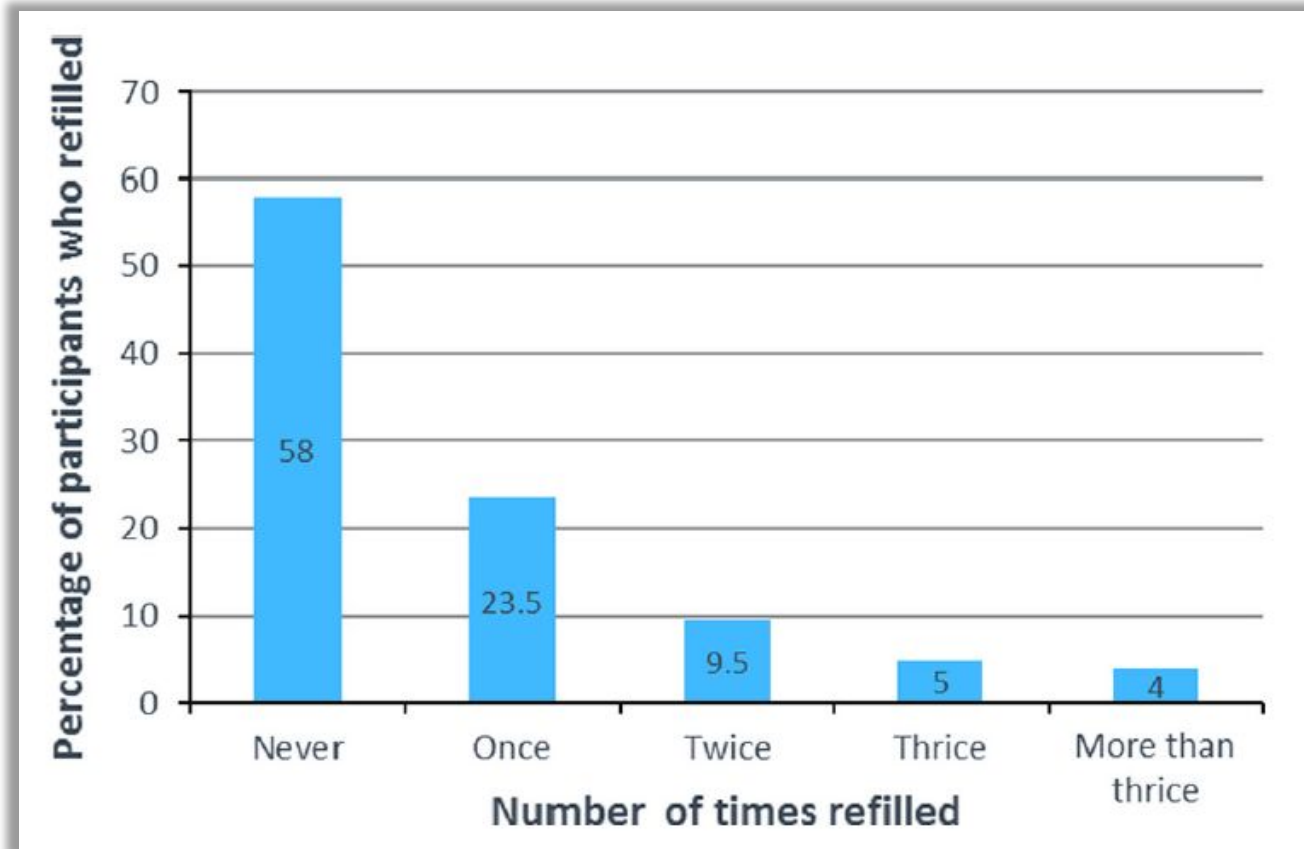


Case Study – Rural LPG Promotion Program, Ghana



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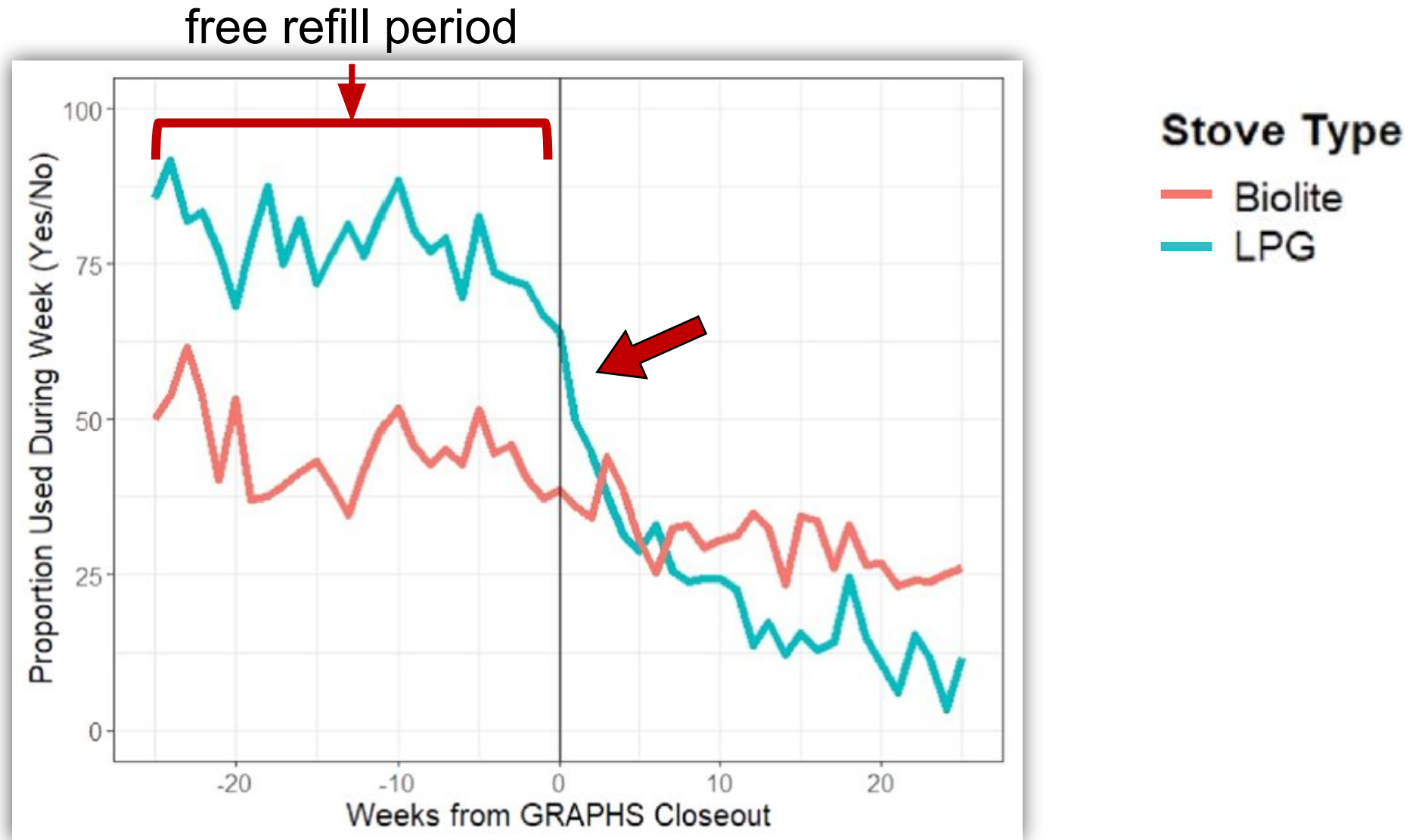
Case Study – Rural LPG Promotion Program, Ghana



*“In a sample of 200 LPG recipients..., all 200 recipients continued to rely primarily on wood fuels for cooking **nine months** after LPG distribution.”*

(Asante, 2018)

Case Study – Rural LPG Promotion Program, Ghana



Case Study – Rural LPG Promotion Program, Ghana

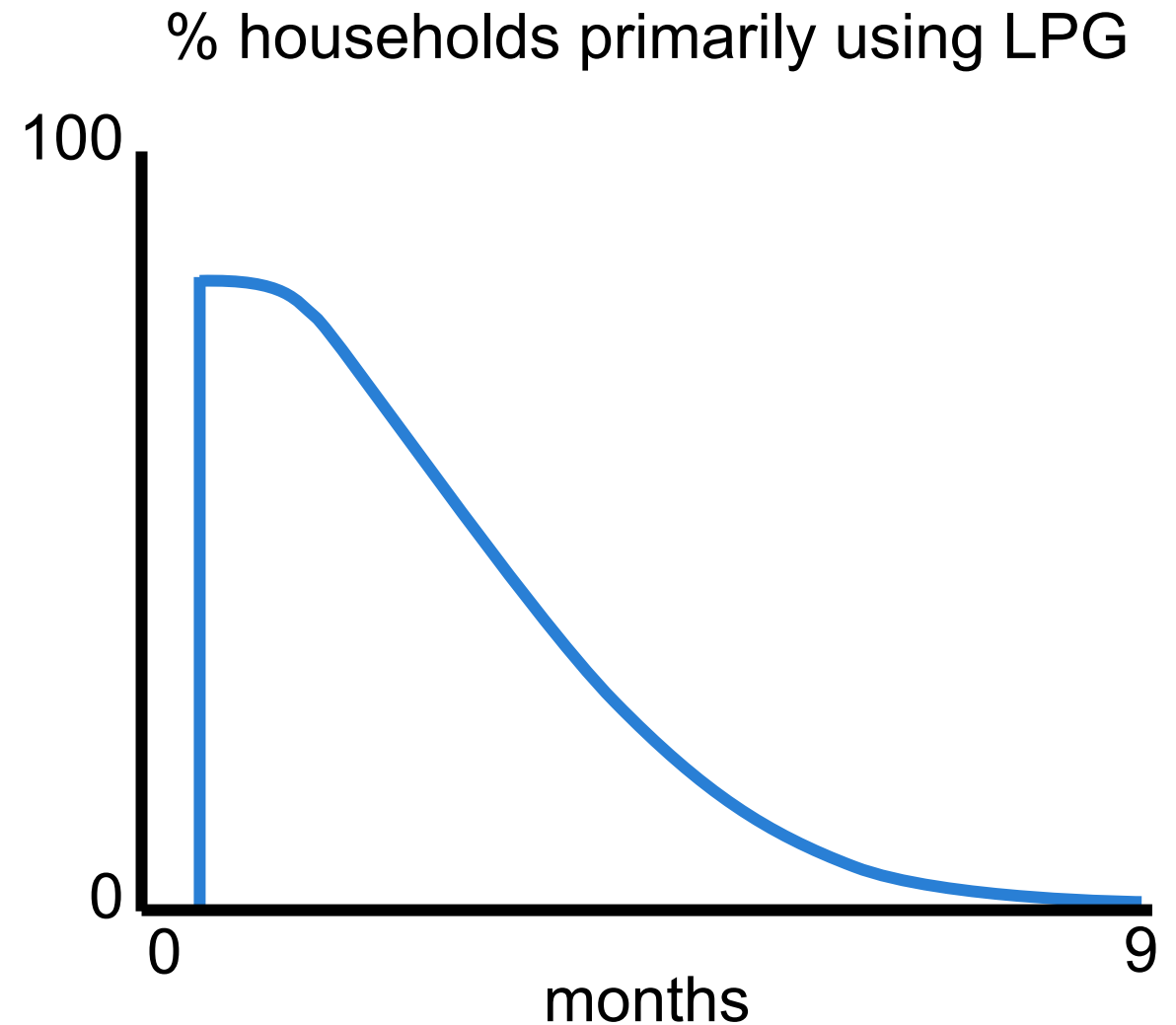
Structure?



Systematic Lit Review

10 articles on LPG adoption
in rural Ghana

12 barriers/enablers



Case Study – Rural LPG Promotion Program, Ghana

willingness to pay for LPG

refill availability
(reliability, logistics)

LPG safety concerns

education level

comfort with (suitability of)
three-stone fires

firewood availability

repair availability

perceived benefits of
LPG

firewood price

available savings

seasonality of
household income

income level

education level

household size

cost of LPG refills

refill availability
(distance)

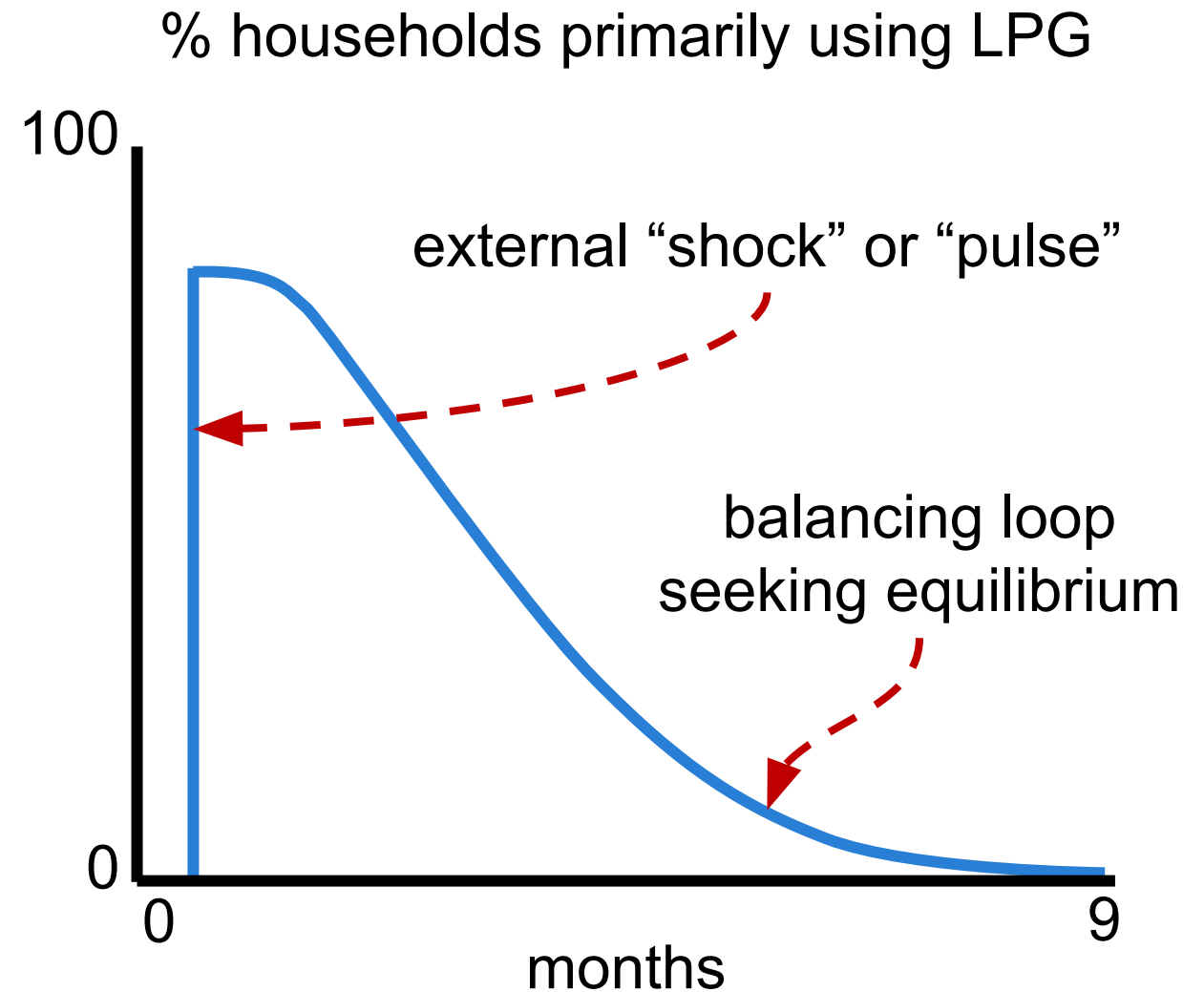
cost of LPG

Case Study – Rural LPG Promotion Program, Ghana

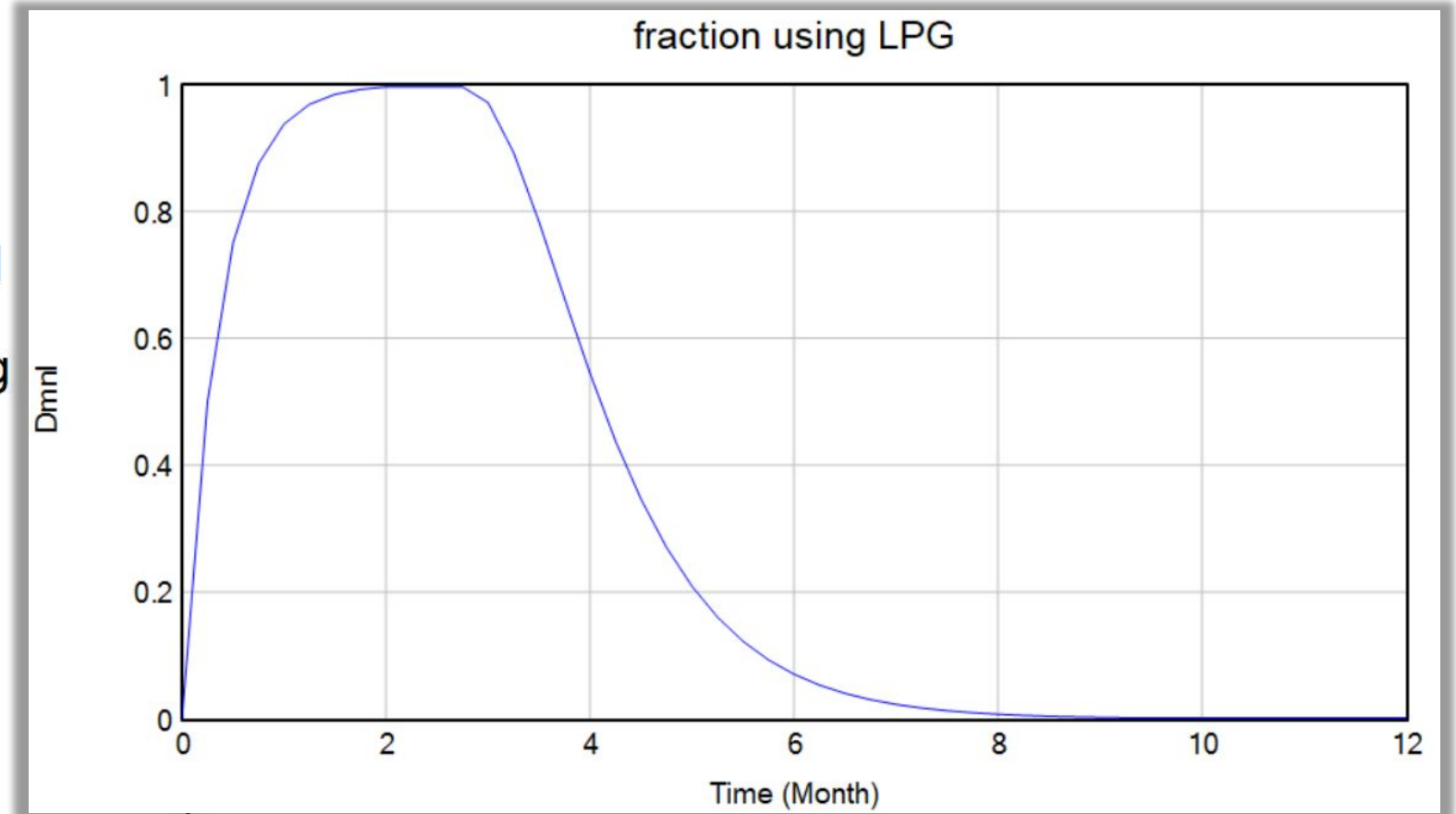
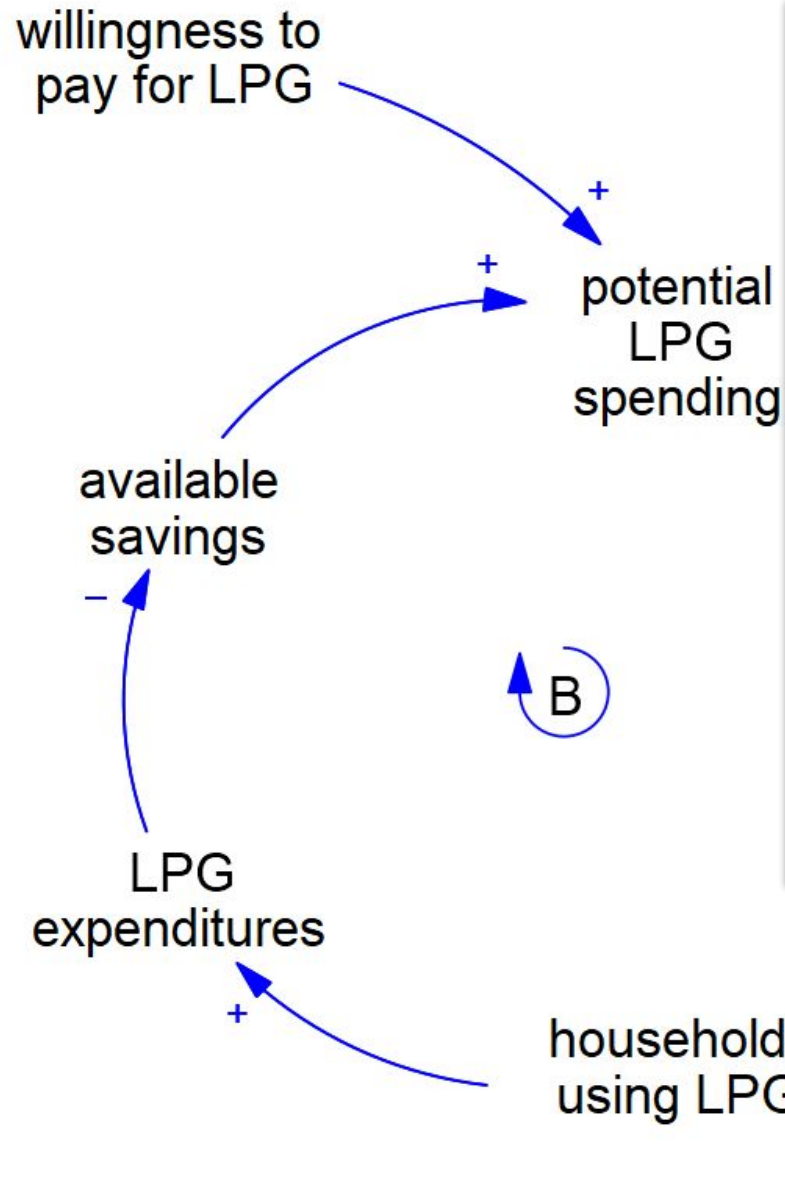
Structure?



System Dynamics
Theory



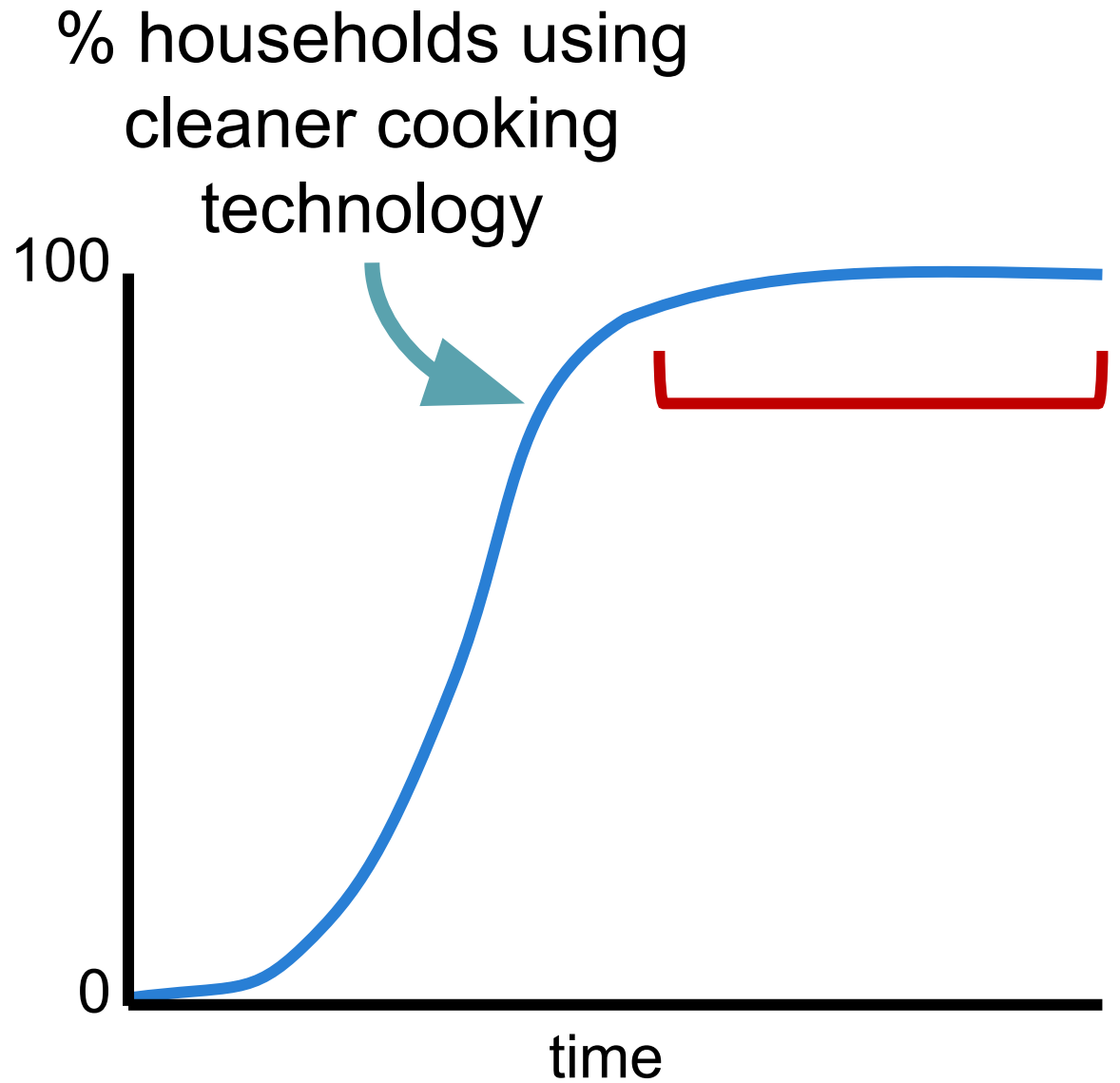
Case Study – Rural LPG Promotion Program, Ghana



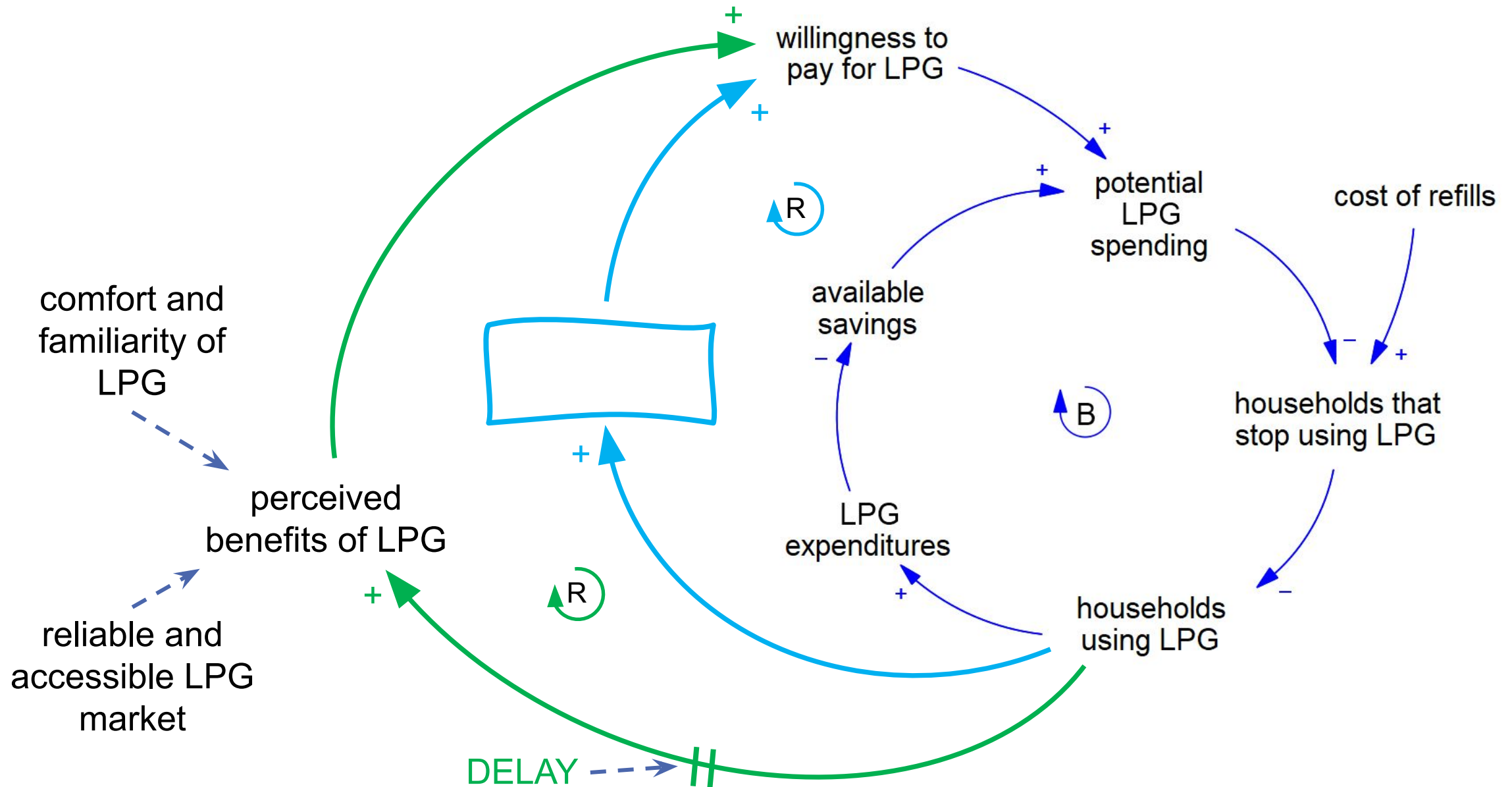
RLP
+

What structures lead to sustained cleaner cooking?

?
Structure
?



Need direct, fast-acting, reinforcing feedback



Time for Questions and Comments

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