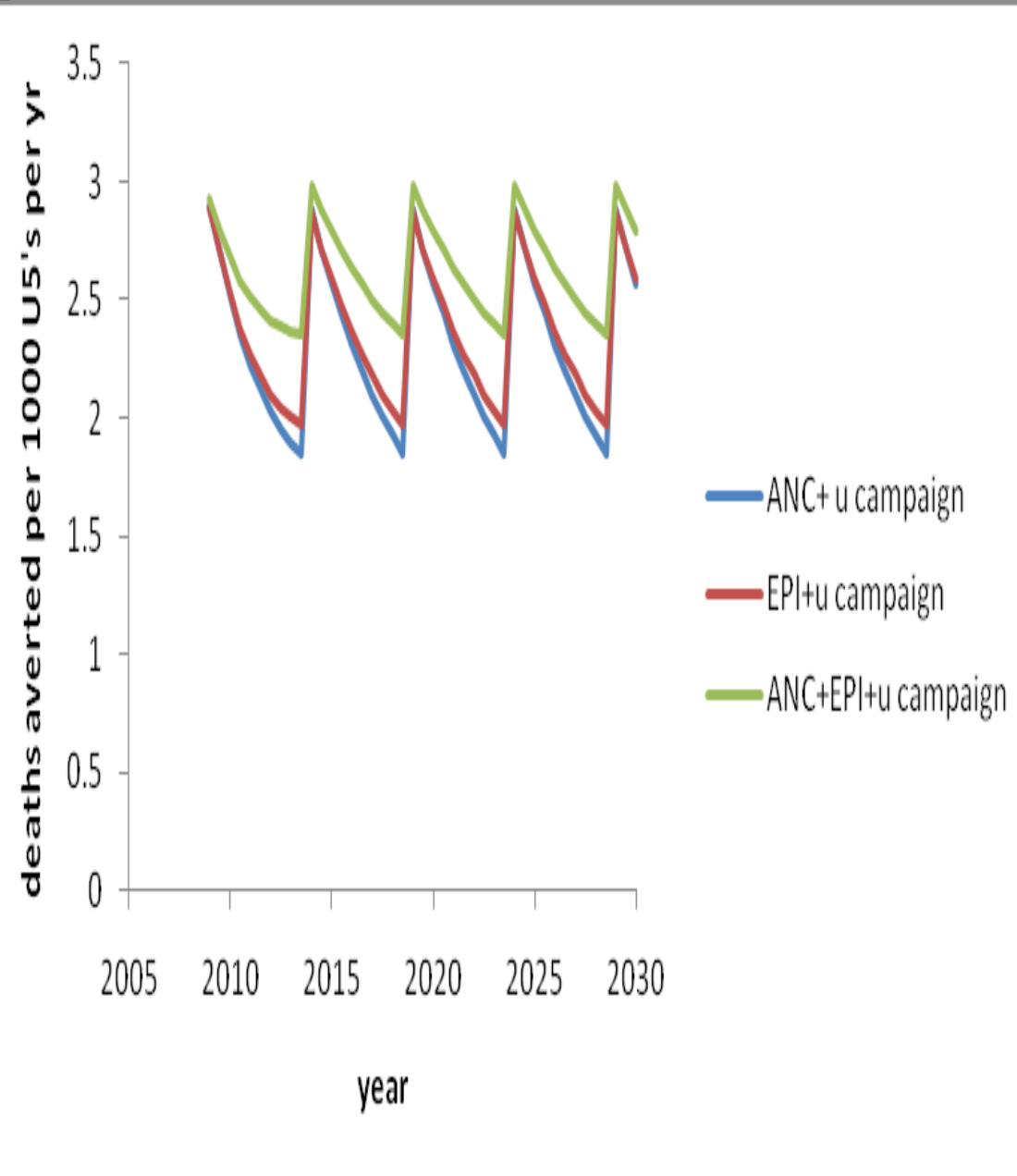
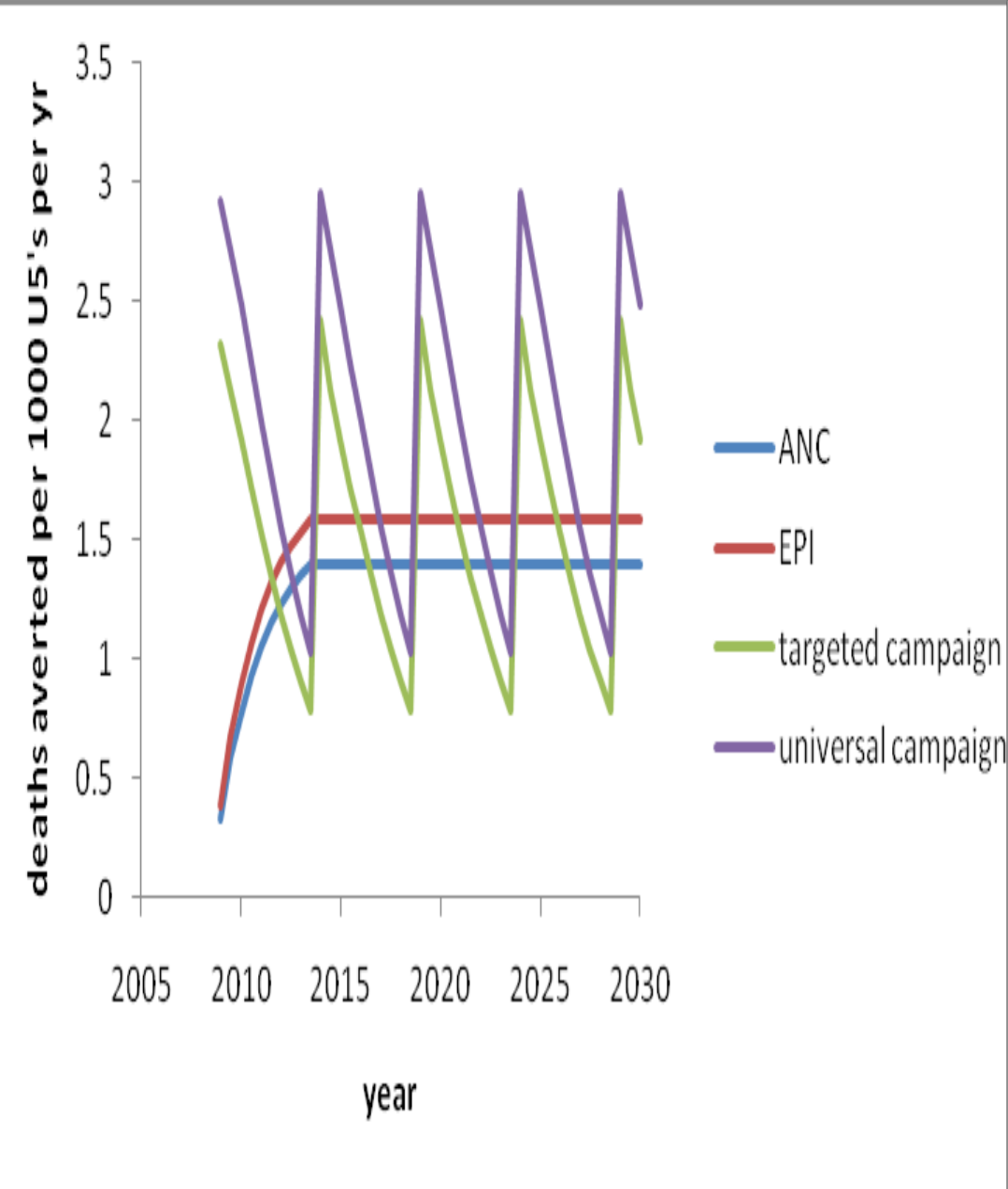


# LLIN strategies for Universal Coverage

- UNIVERSAL COVERAGE –
  - All age-groups - targeting to vulnerable groups only if necessary
  - Socio-economic equity
  - All endemic areas – geographic equity (indicators)
- Campaigns every 3 years – Yes but not alone!
  - Current LLIN strategies assume that all LLINs exactly 3 years - So periodic campaigns alone give full and full-time coverage of the target population – but the data says this assumption is false!
- Must have Keep-Up too - give equal priority to routine systems – ANC + EPI ?
- Re-treatment of local nets during campaigns



# Modelling shows how continuous routine distribution through EPI can complement fixed-interval campaigns



# LLIN Durability & Universal Coverage

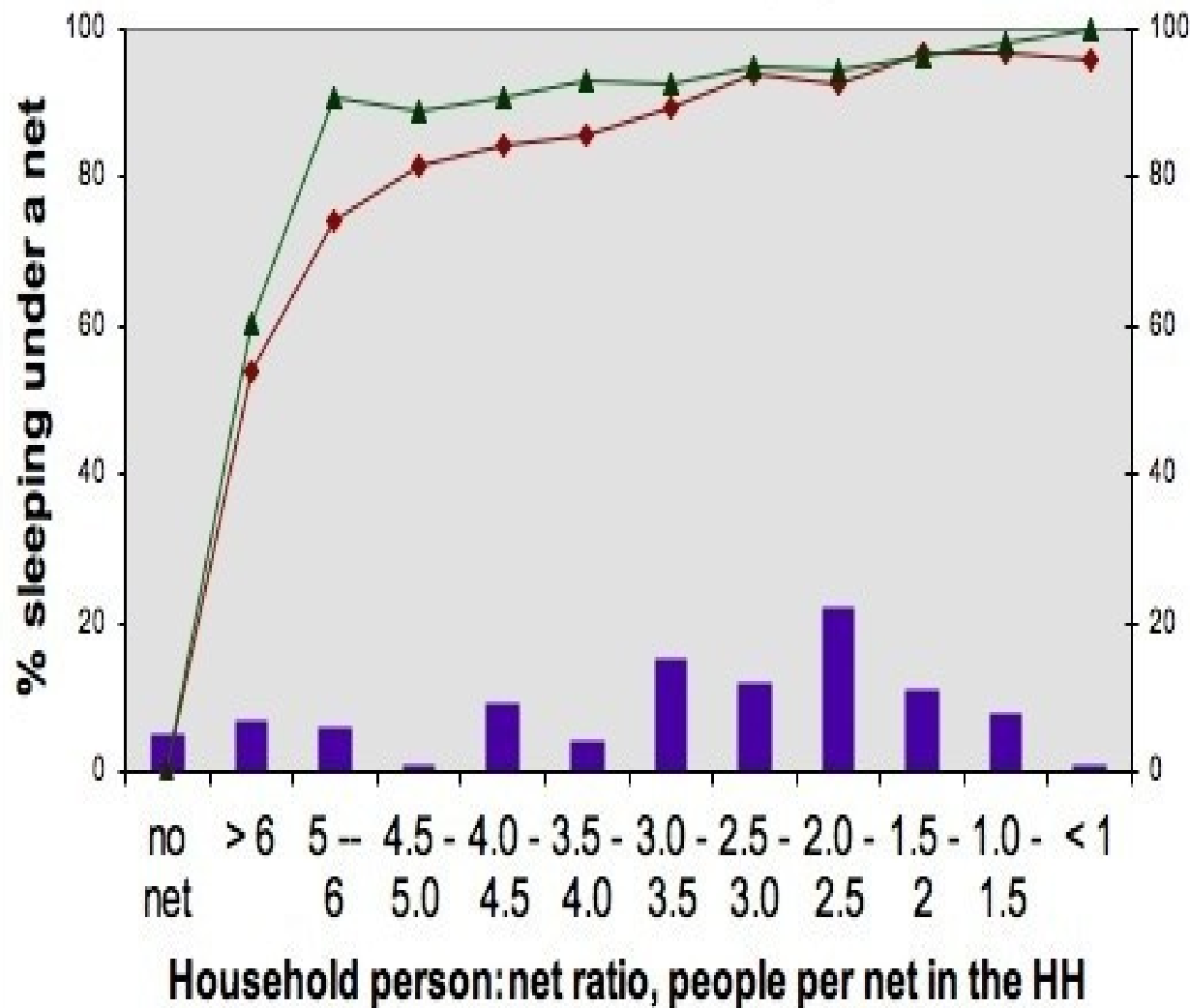
- Responding to a mixture of nets – range of conditions, incl untreated - **operational research needed!! Procurement SOPs, Logistics SOPs, Village- and Household-level SOPs**
  - Indices of Universal Coverage
  - M&E questions – how to enumerate uncovered sleeping places?
  - Nets per person ratio at programme, village and HH levels...
- Do we need to remove old nets?
  - 2 reasons suggested .. Blocking new nets and environmental pollution. But Evidence?
  - Research project - assess need to dispose and methods ( meanwhile DON" T burn )
  - Old nets are best recycled within the community – e.g. under the bed, as eave-curtains, or to protect seedlings / cabbages



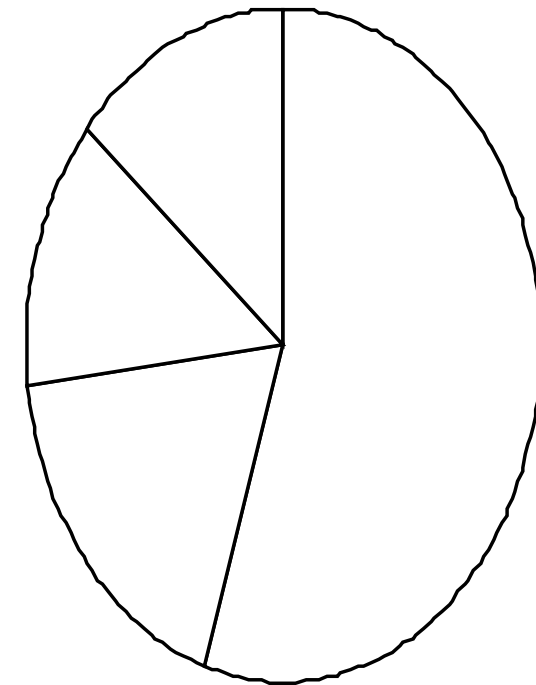
# Data: Cambodia Baseline Survey 2004

## Household level ownership vs usage

- % of HH with this ratio
- ◆ % of people in these HH sleeping under a net
- ▲ % of underfives in these HH sleeping under a net



## Treatment status of nets in Cambodia 2004



- Never-treated Net (from market)
- Expired-Treated Net (from Govt)
- Fresh treated Net
- No Net

# Universal Vector Control Coverage – IRS etc

- Support for IRS implementation - incl VCWG
- IRS training modules, training centres and WHO collaborating centres
- Performance Review and strengthening country IRS programs
- Coordination and collaboration on randomized control trials on LLIN and IRS combination
- WHO Guidelines on larvicides and topical repellents
- Vector control for Elimination ??



# Choosing the right VC combinations, and New Products

- IRS + ITNs = the most urgent and topical issue (evidence)
  - Also repellents, breeding-site control (larvicides).
- Broad issue = Stratification defining which vector control methods are likely to be effective/cost-effective in which situations
  - E.g. On IRS + ITNs, we did issue clear advice that the combination is more protective... but not an exhaustive list of the locations/contexts in which the combinations would and would not be cost-effective – this was the criterion used by TRP to reject some proposals including the combination.
- Najera's "Eco-epidemiological paradigms"
  - one of WHO's most valuable contributions to malariology ....
  - We need to up-date them, region by region, and use them as basis for VC stratification
- New Products – it is GMP's job to define the point at which the evidence for a new product is adequate to recommend its use in public health. How should we do this?



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