Reducing the Impact of PRRS on breeding herds: Updates on Time-to-Stability, Total Piglet Losses, Lineage, and Interventions

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What is the POMP?

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**********fieldepi.org/pomp/**

Ongoing epi platform gathering data to provide insights on

onset, **response**, and **recovery**

from PRRS outbreaks

Benefits to participants:

- ü $700 per break for diagnostic tests
- ü Production performance monitoring for recovery
- ü PRRSV sequences and production benchmarking
- ü Within and between systems benchmarking
- ü ***Knowledge on factors associated with better recovery***

POMP SURVEY

WHAT TO EXPECT

We understand that completing the POMP survey may take some of your valuable time. However, your participation is crucial. The information you provide helps us capture the interventions used on farms and supports better decision-making to improve PRRSV control strategies. Your input directly contributes to advancing swine health management across the industry. It includes the following major sections:

1 Farm & Contact Information

- Farm location, name, and premises ID
- Contact details of the person completing the survey and the farm veterinarian
- Sow genetics and housing type

2 PRRSV Outbreak History

- Previous outbreaks (dates) in the past 3 years
- Herd PRRSV status before the current outbreak
- Details of the current outbreak (date, ORF5, ISU VDL case ID)

3 Whole-Herd Exposure Practices

Before the outbreak to after the current break for both sows and gilts, the survey asks about:

- Number and timing of exposures (up to six)
- Materials used (e.g., vaccines, live virus, autogenous products)
- Dosage, route of administration, and age groups exposed (gilts, whole-herd)
- Source and origin of PRRSV used in exposures (piglets or sows)

4 Response Plan to Current Outbreak

- Strategy (e.g., control with/without vaccination, depopulation, be naive again)
- Implementation of herd closure and re-opening criteria
- Use of exposure in the response plan

5 Gilt Flow & Source

- Source of gilts (on-site, off-site, external)
- Age at closure and closure duration
- Criteria for reopening to normal gilt replacement

6 Bio-Management Strategies

For sows and suckling piglets, questions are covered in a Likert scale manner (answering from never to always implemented):

- Cross-fostering practices
- Use of nurse sows
- Injection hygiene (needle changes)
- Farrowing room protocols (cleaning, disinfection, movement restrictions)
- Euthanasia practices for unresponsive or weak piglets

7 Bio-Management Strategies

- Changes made to bio-management post-outbreak
- Timing of those changes
- Whether the response plan was maintained or modified, and why

Key Takeaway for Producers

- Be prepared to provide detailed, farm-specific information about:
- Your PRRSV outbreak history and response
- Vaccination and exposure protocols
- Biosecurity and management practices
- Gilt sourcing and herd closure strategies

Remember,

we are here to help! We can meet you in your office, via email, phone calls.

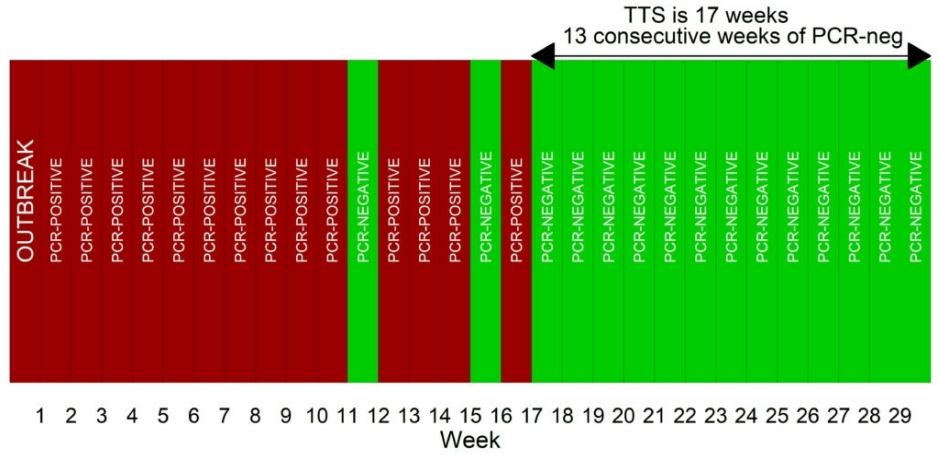
If all information is not available at the time of enrollment, completed information will be collected at 30 weeks post-break.

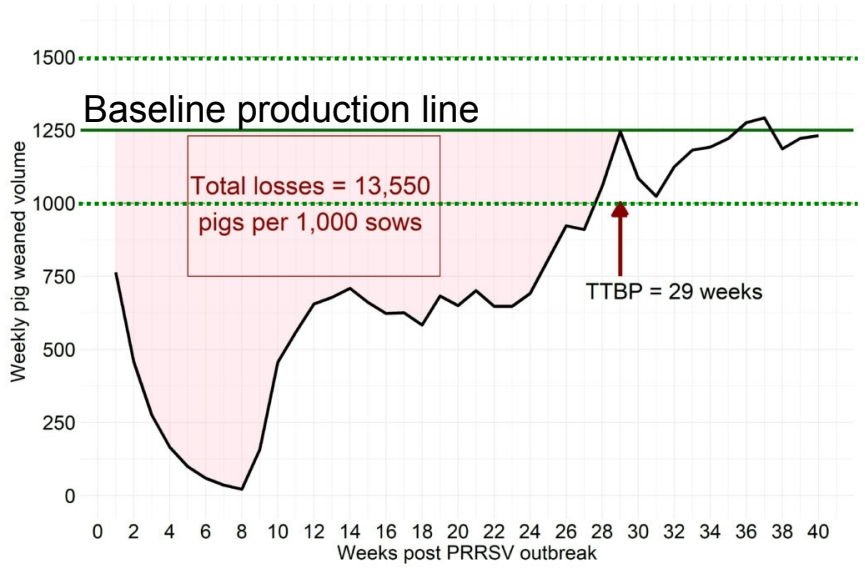
POMP Recovery Metrics:

TTS is the number of weeks from the outbreak date that the farm took to *consistently* wean PCR-negative piglets defined as PRRSV AASV Stable (II or II-vx).

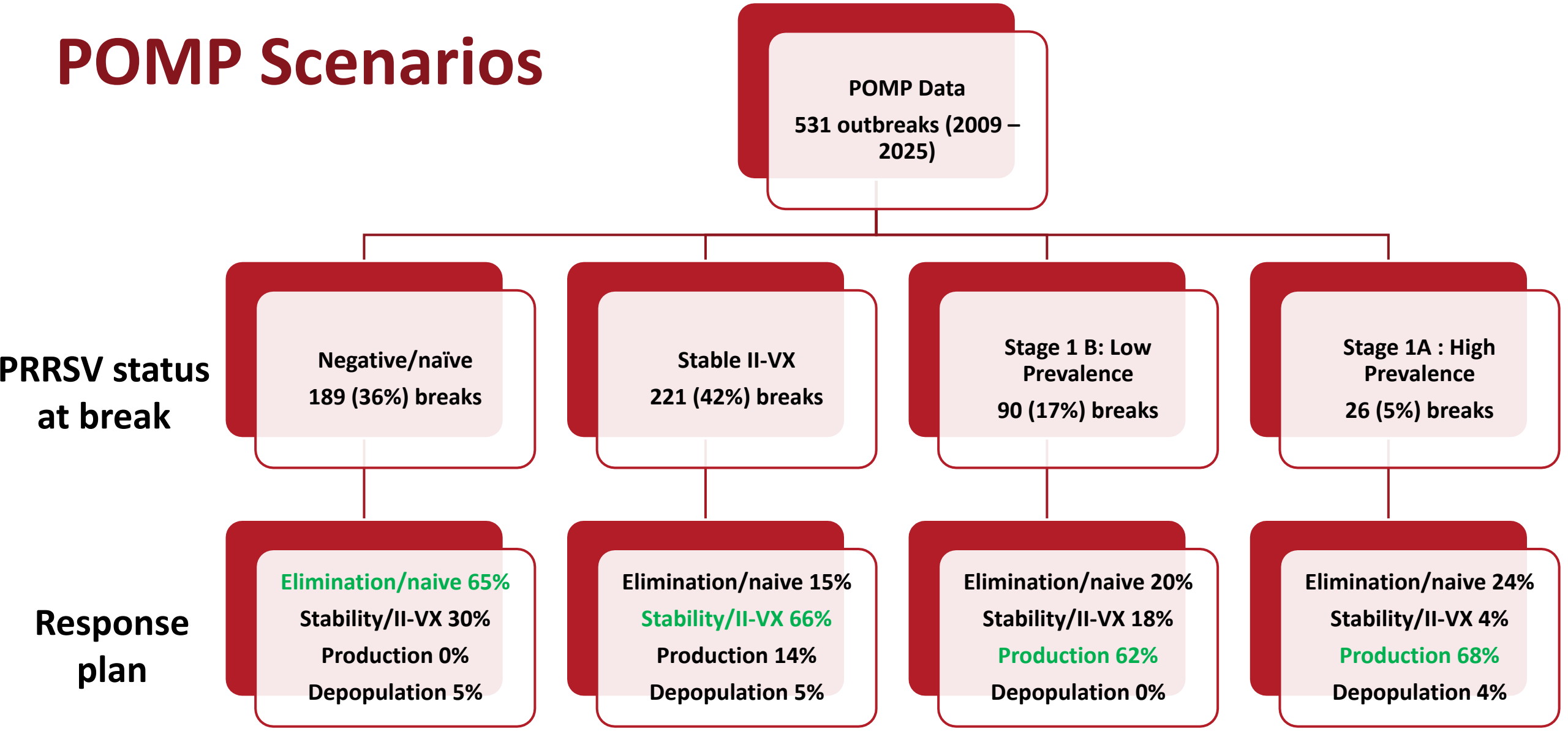
TTBP is the number of weeks after the outbreak to recover the productivity in weaned piglets that the farm had before the outbreak.

TL is the total number of piglets not weaned after the outbreak divided by sow inventory and standardized by 1,000 sows

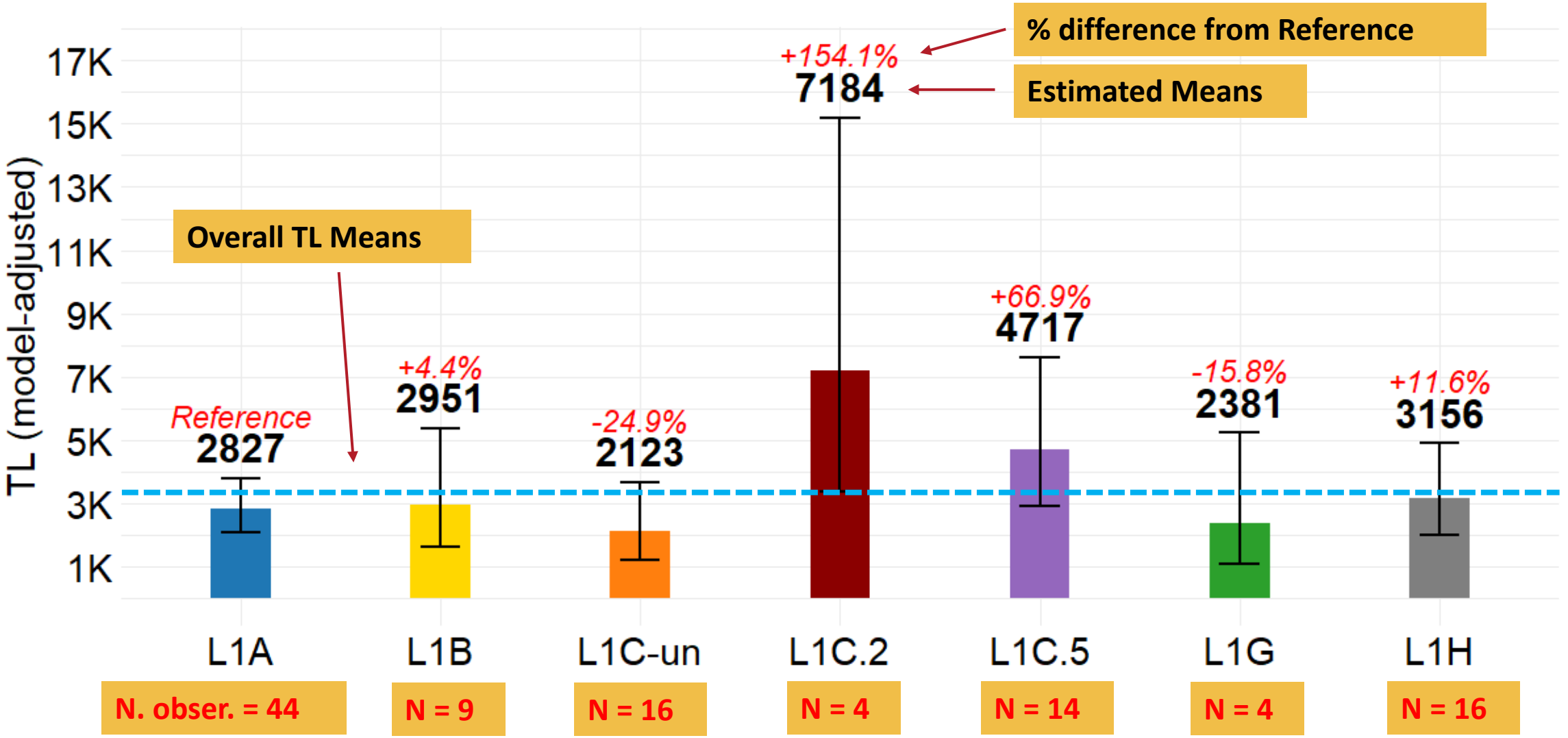




POMP Scenarios

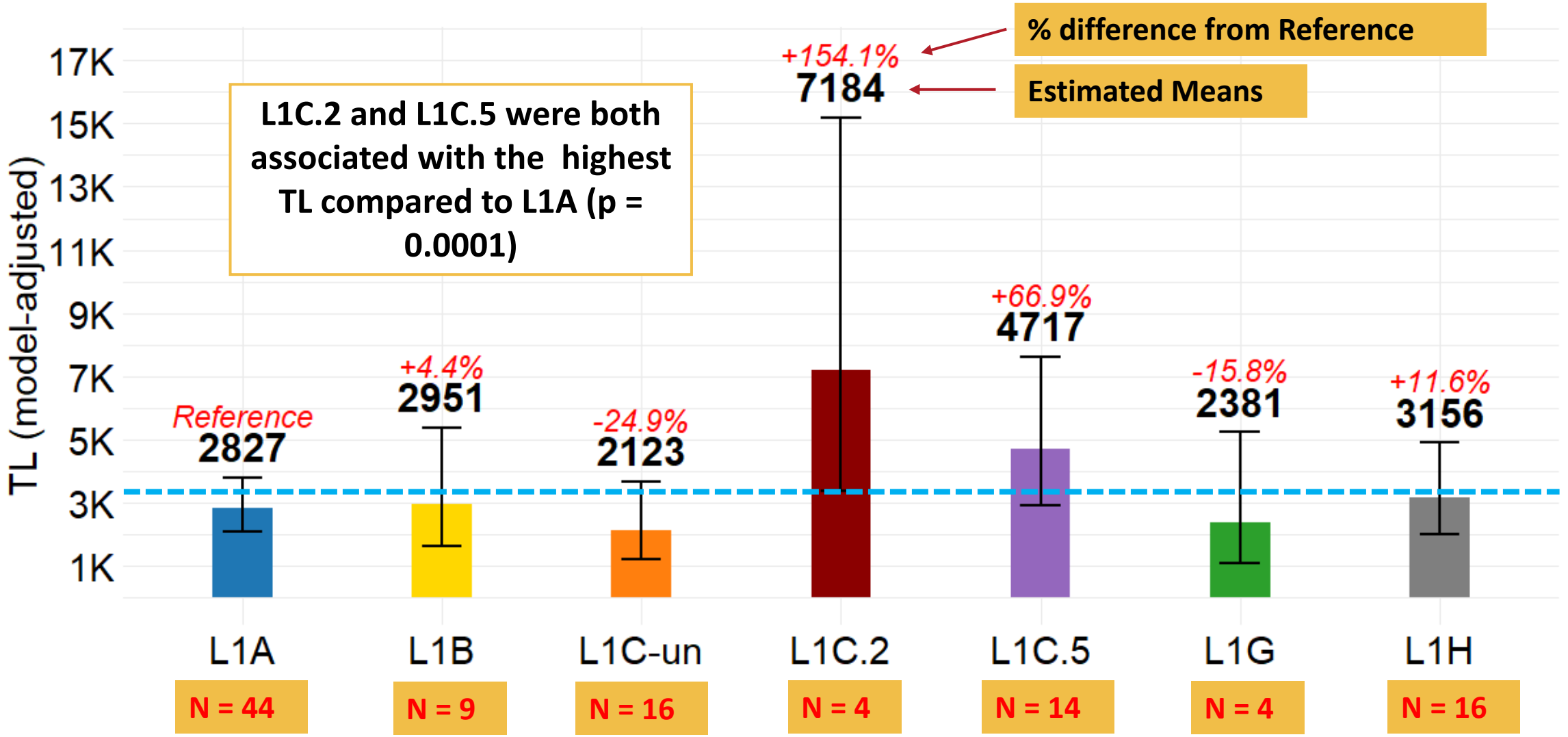


Negative/naïve herds: Lineages on Total Losses



*model adjusted by break year

Negative/naïve herds: Lineages on Total Losses



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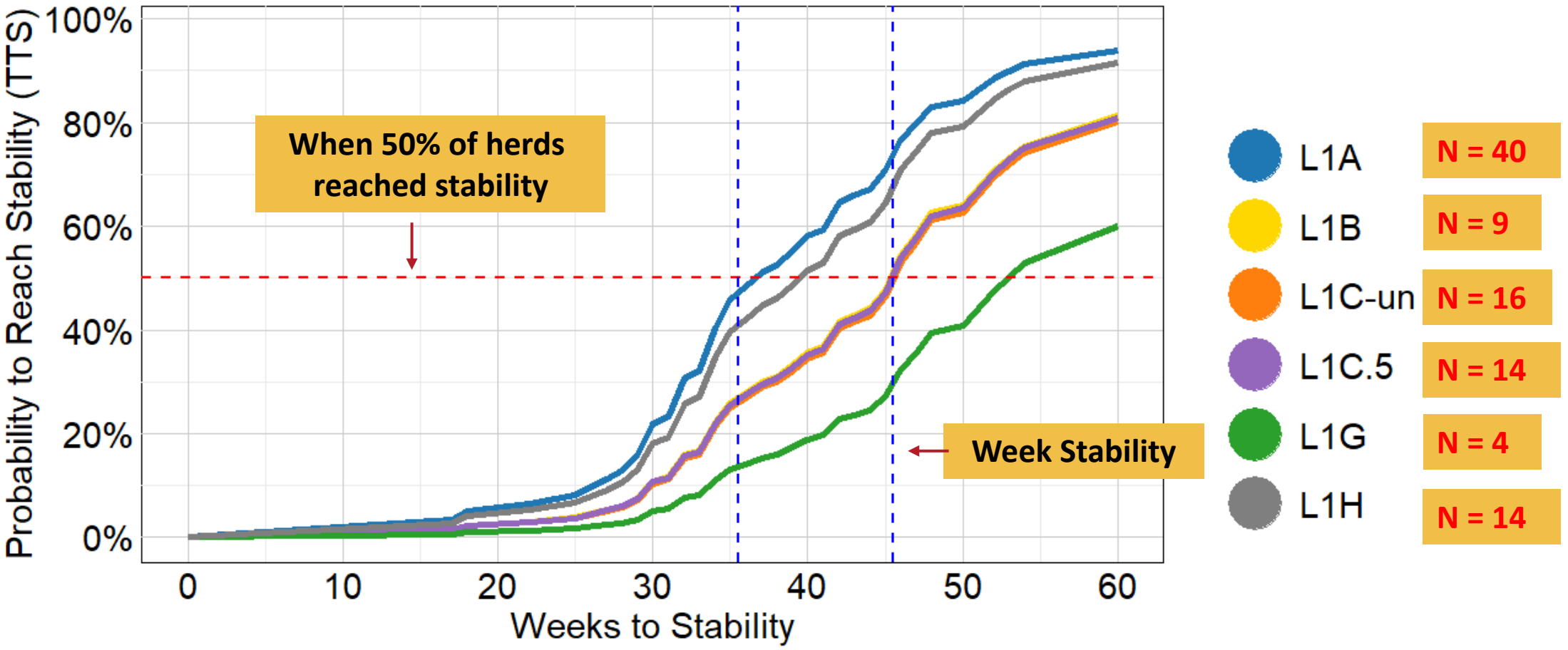
Negative/naïve herds pursuing elimination: Lineages on TTS



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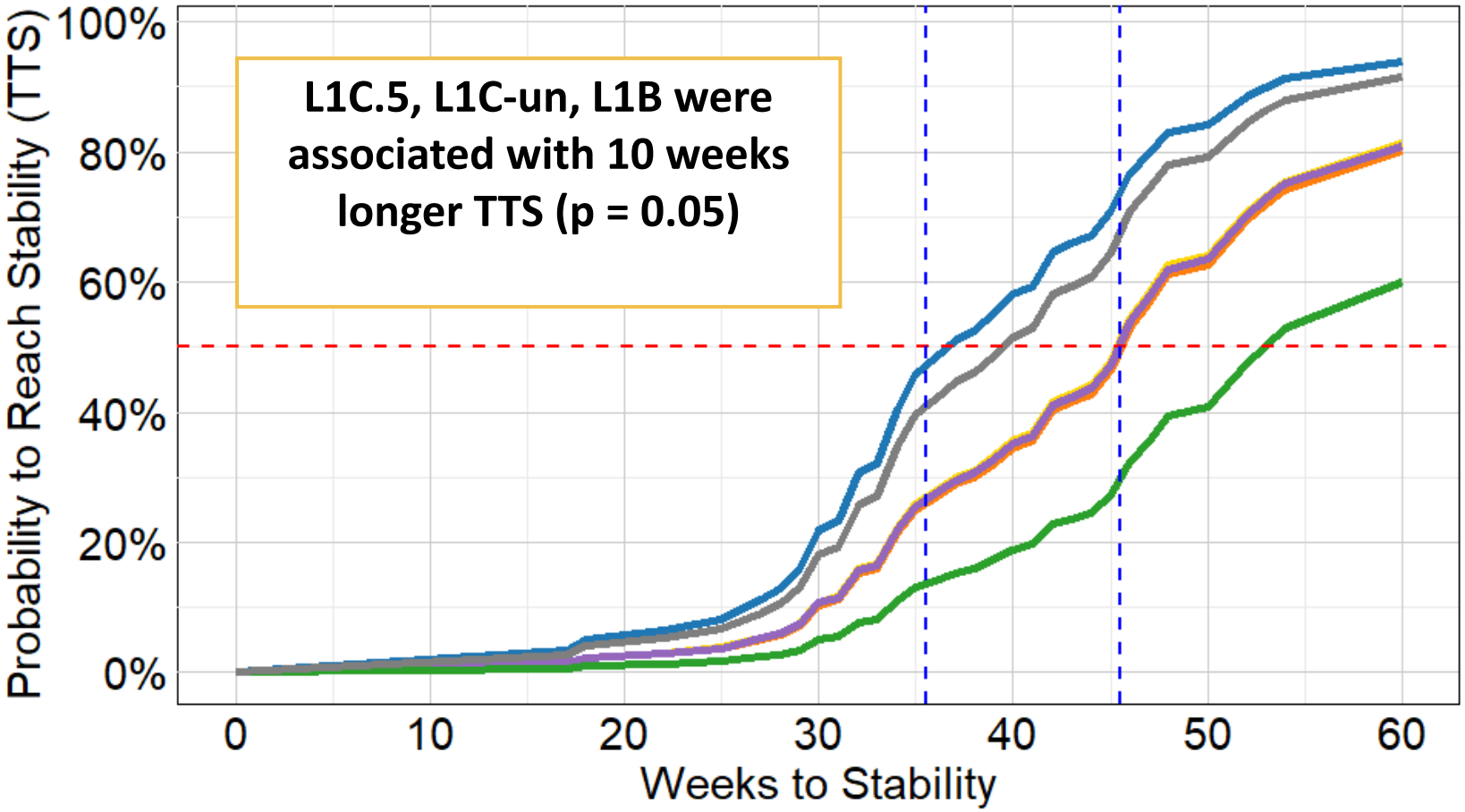
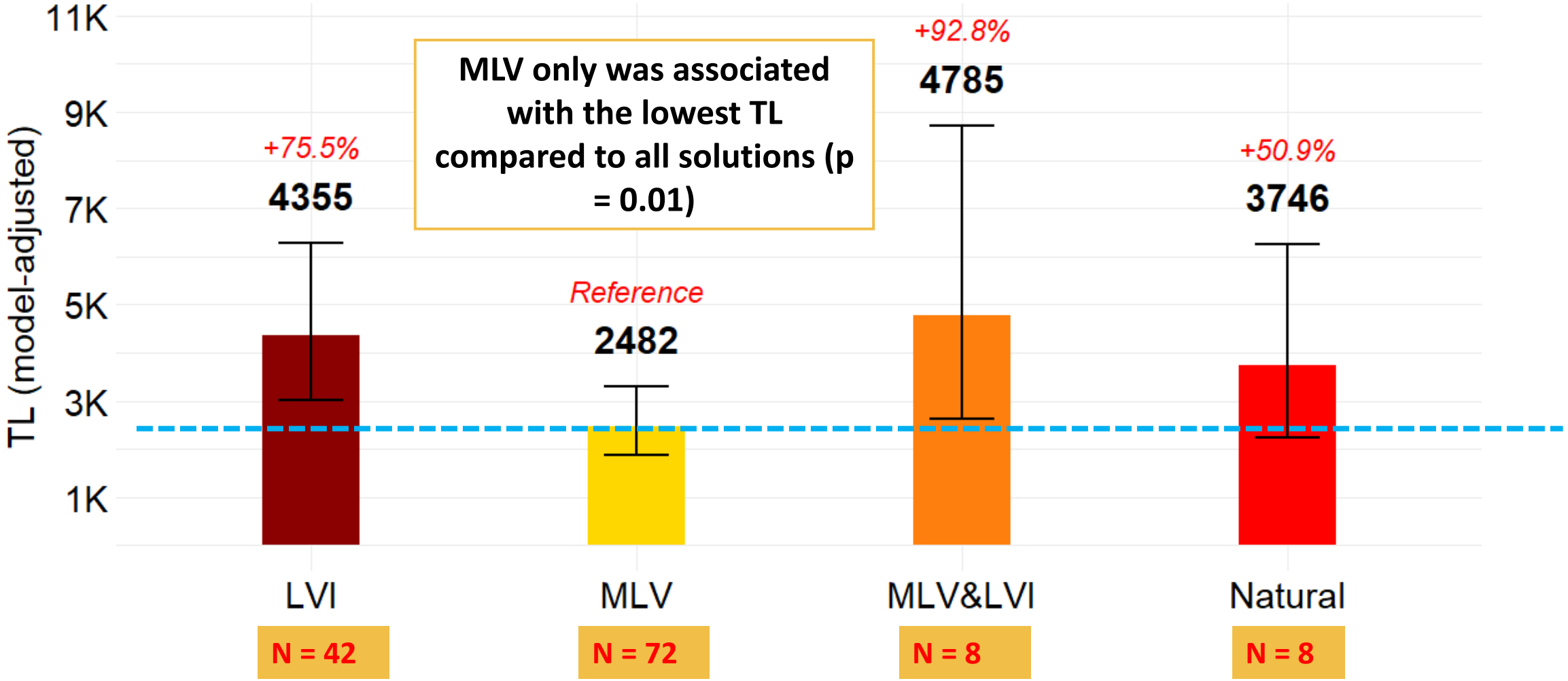


L1A N = 40
L1B N = 9
L1C-un N = 16
L1C.5 N = 14
L1G N = 4
L1H N = 14

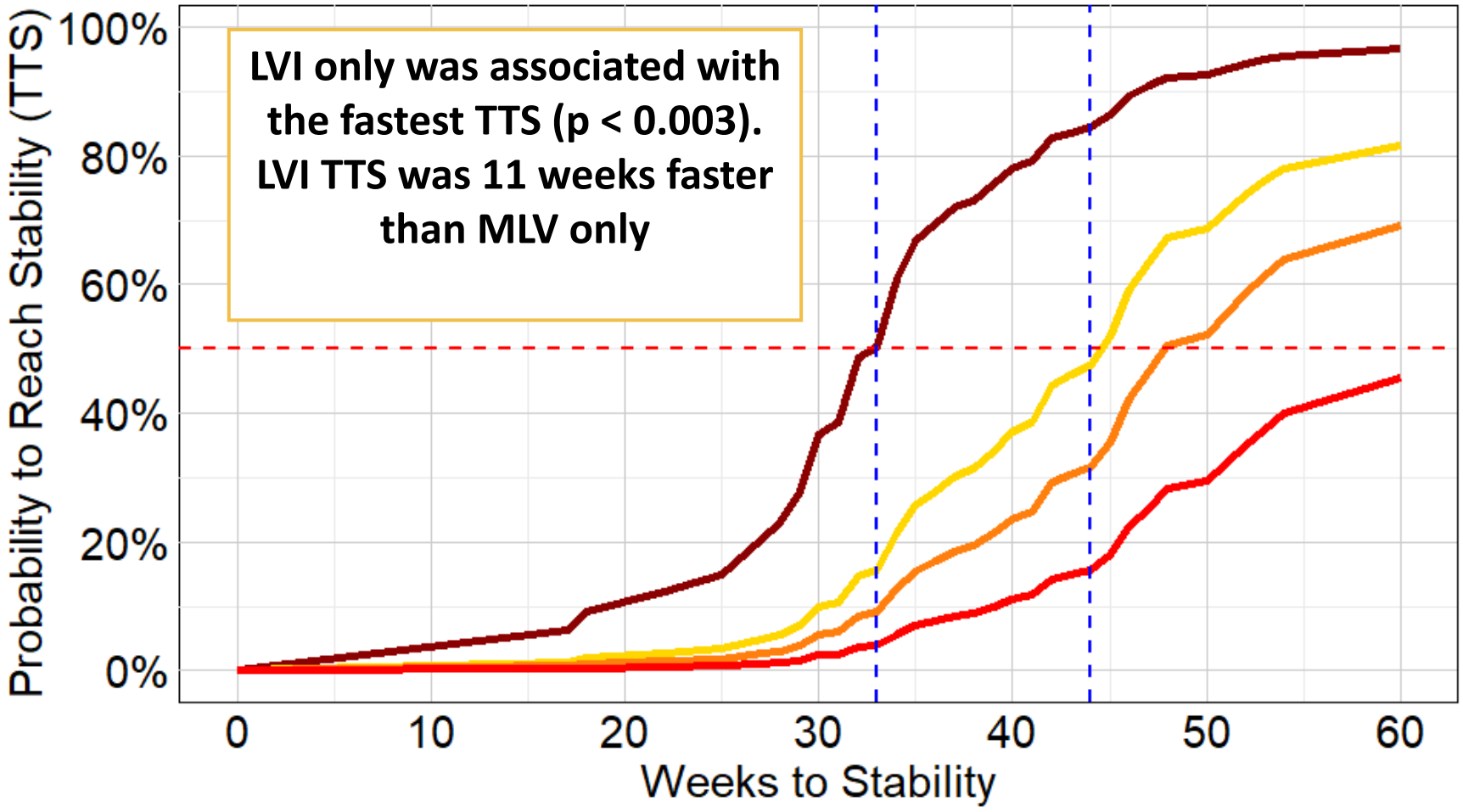
*model adjusted by break year

Negative/naïve herds: Post-break sow exposure solutions on Total Losses



*model adjusted by lineage and break year

Negative/naïve herds: Post-break sow exposure solutions on TTS



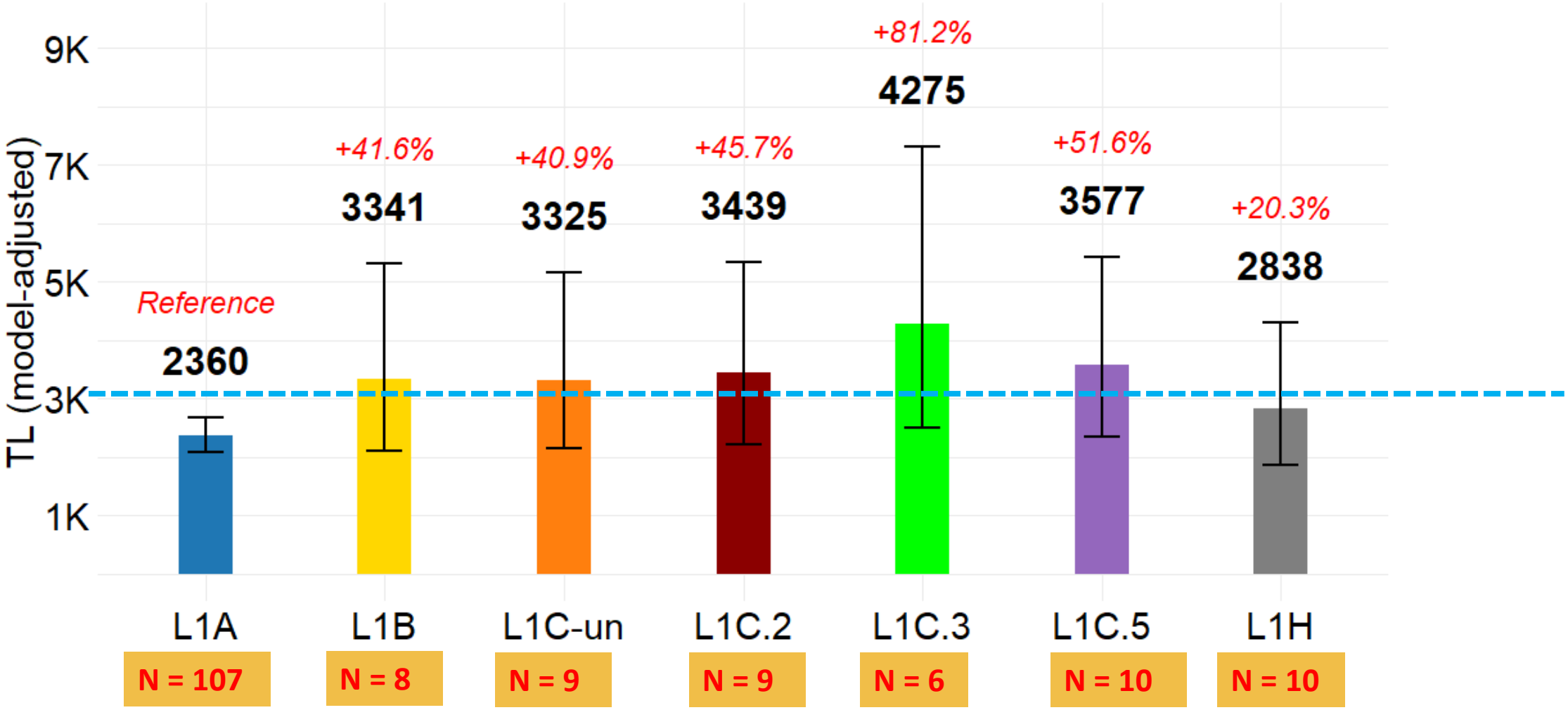
LVI N = 36

MLV N = 46

MLV&LVI N = 7

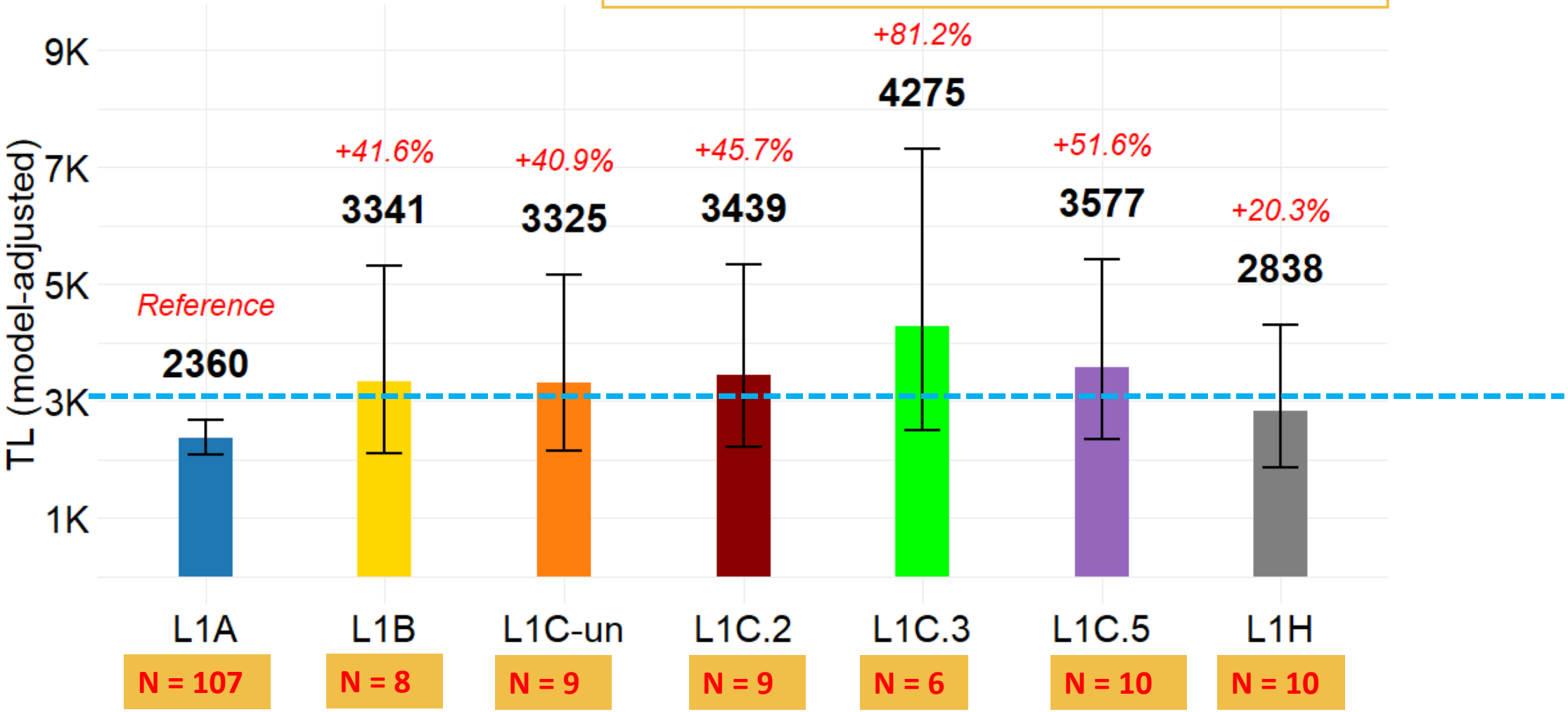
Natural N = 8

II-VX herds: Lineages on Total Losses

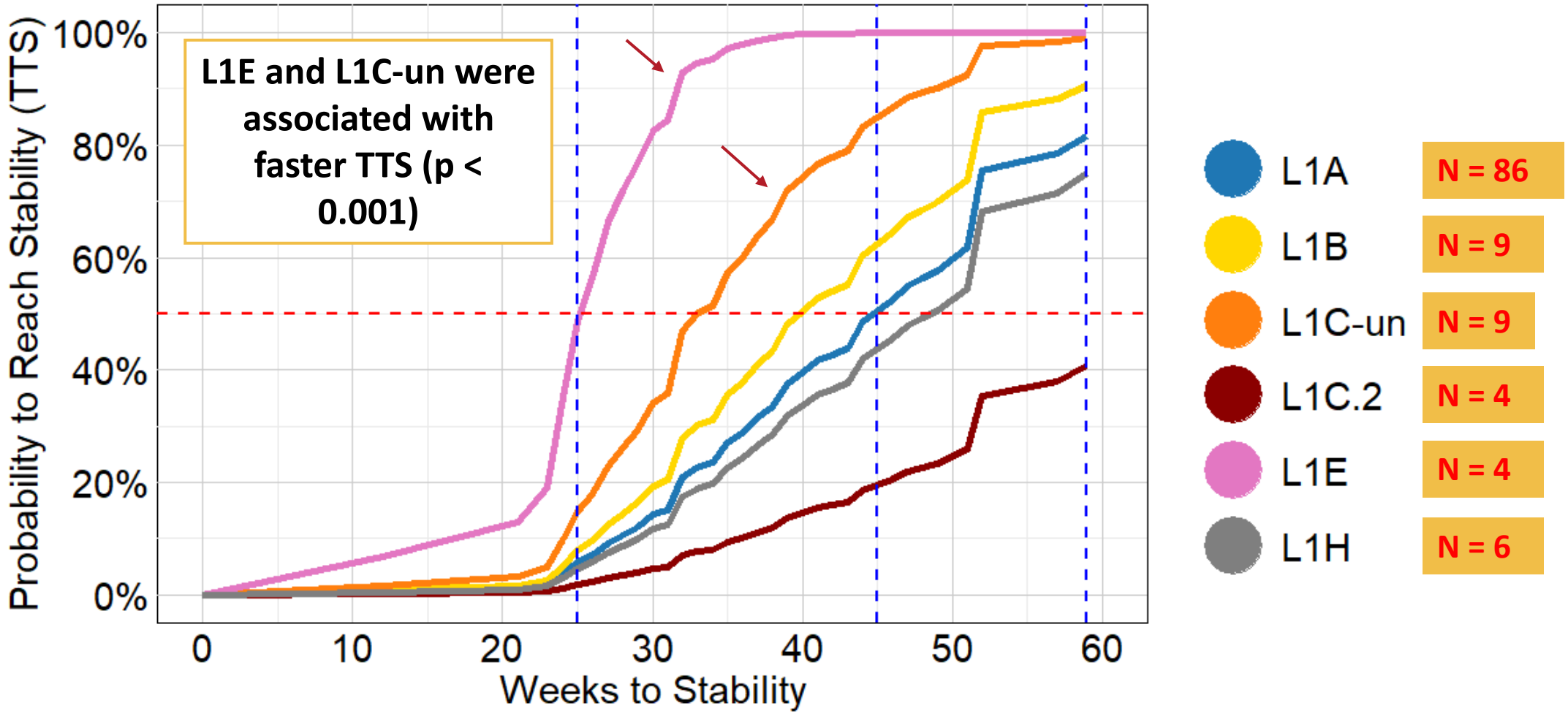


II-VX herds: Lineages on Total Losses

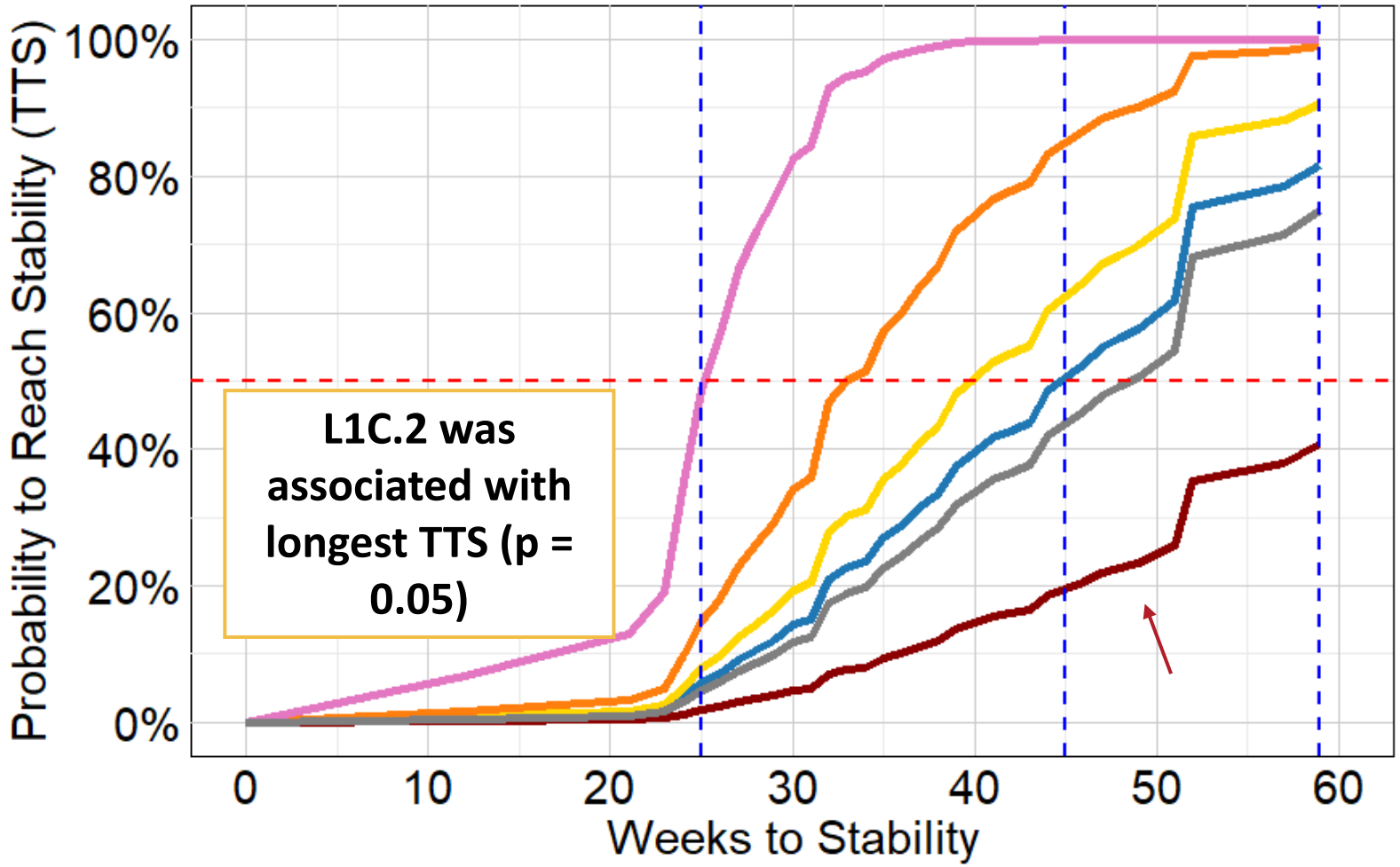
L1C.3 and L1C.5 were both associated with the highest TL compared to L1A (p = 0.05)



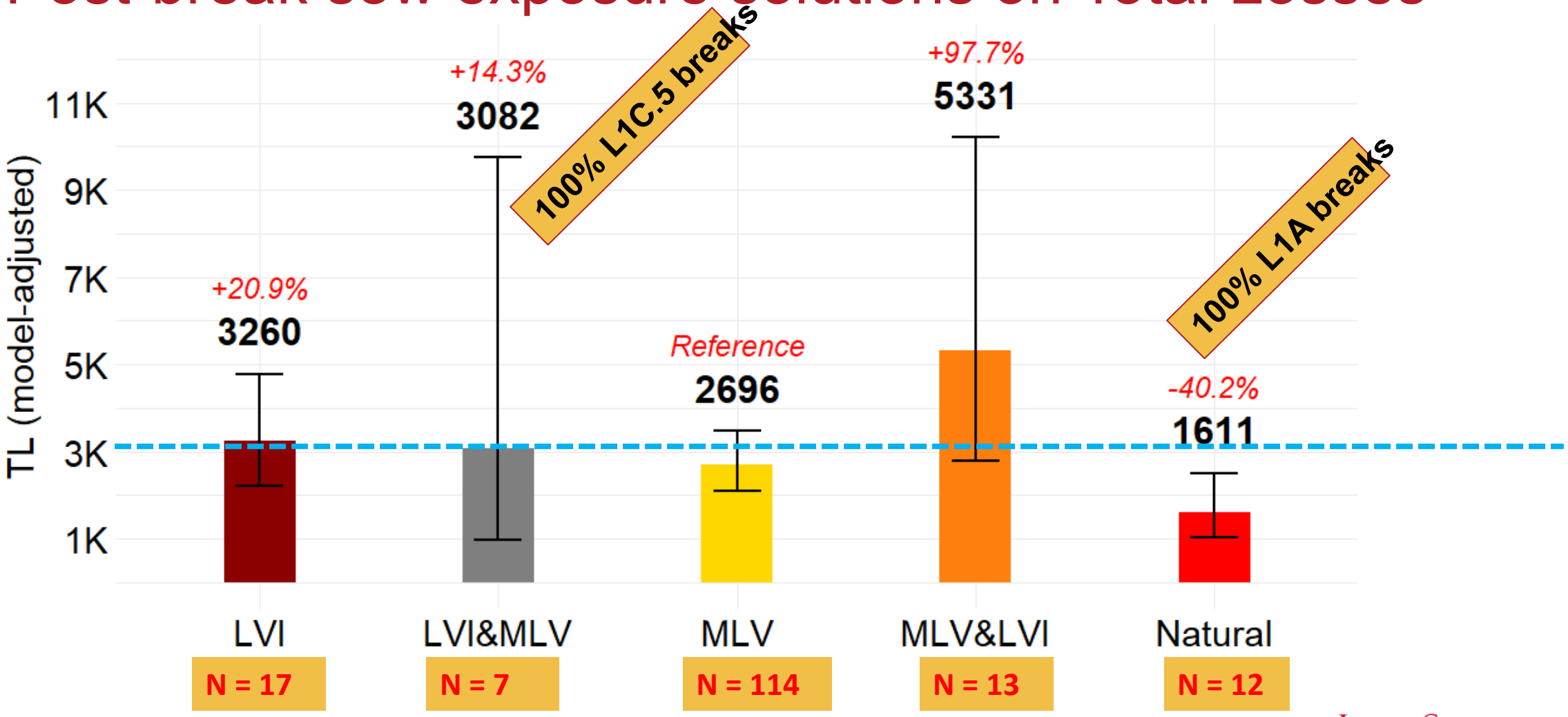
II-VX herds pursuing elimination/stability: Lineages on TTS



II-VX herds pursuing elimination/stability: Lineages on TTS

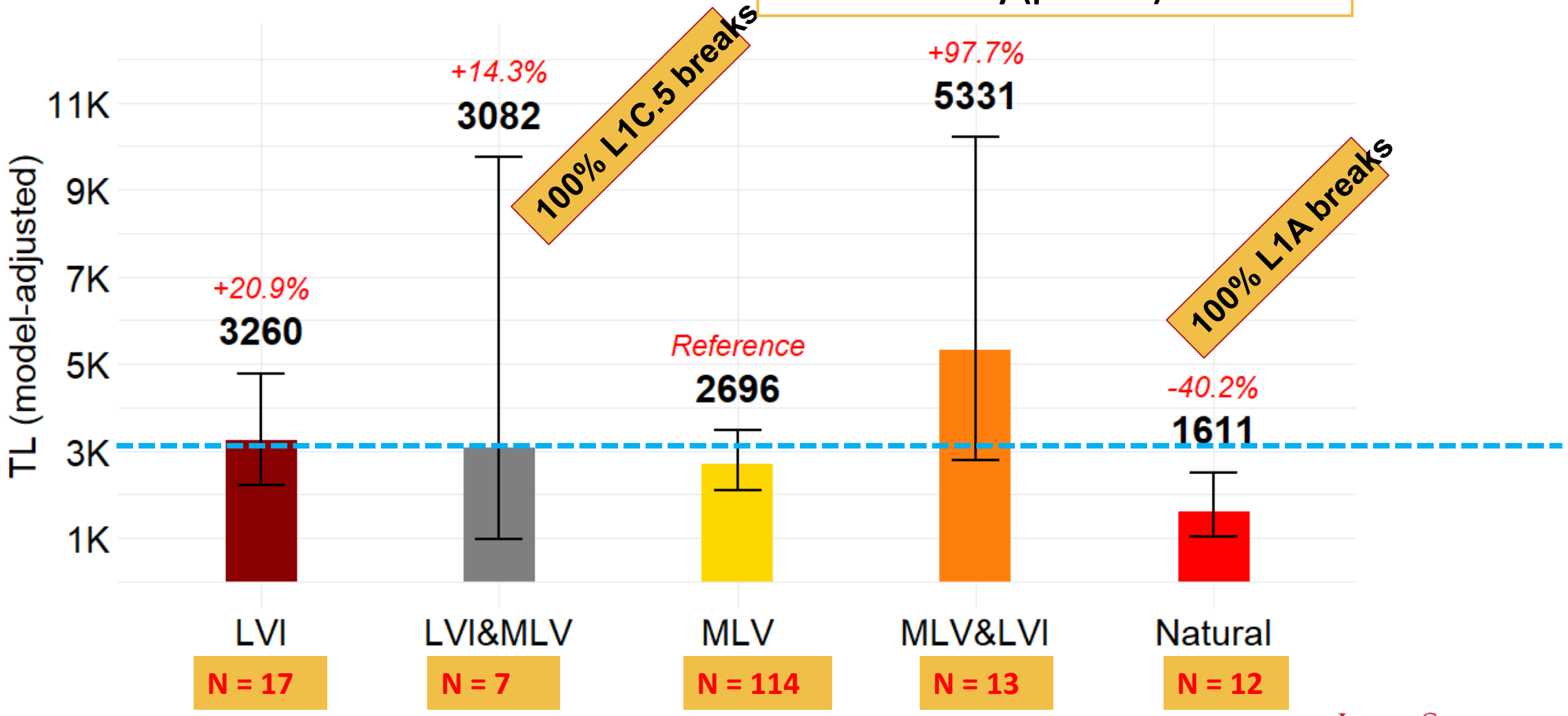


II-VX herds pursuing elimination/stability: Post-break sow exposure solutions on Total Losses

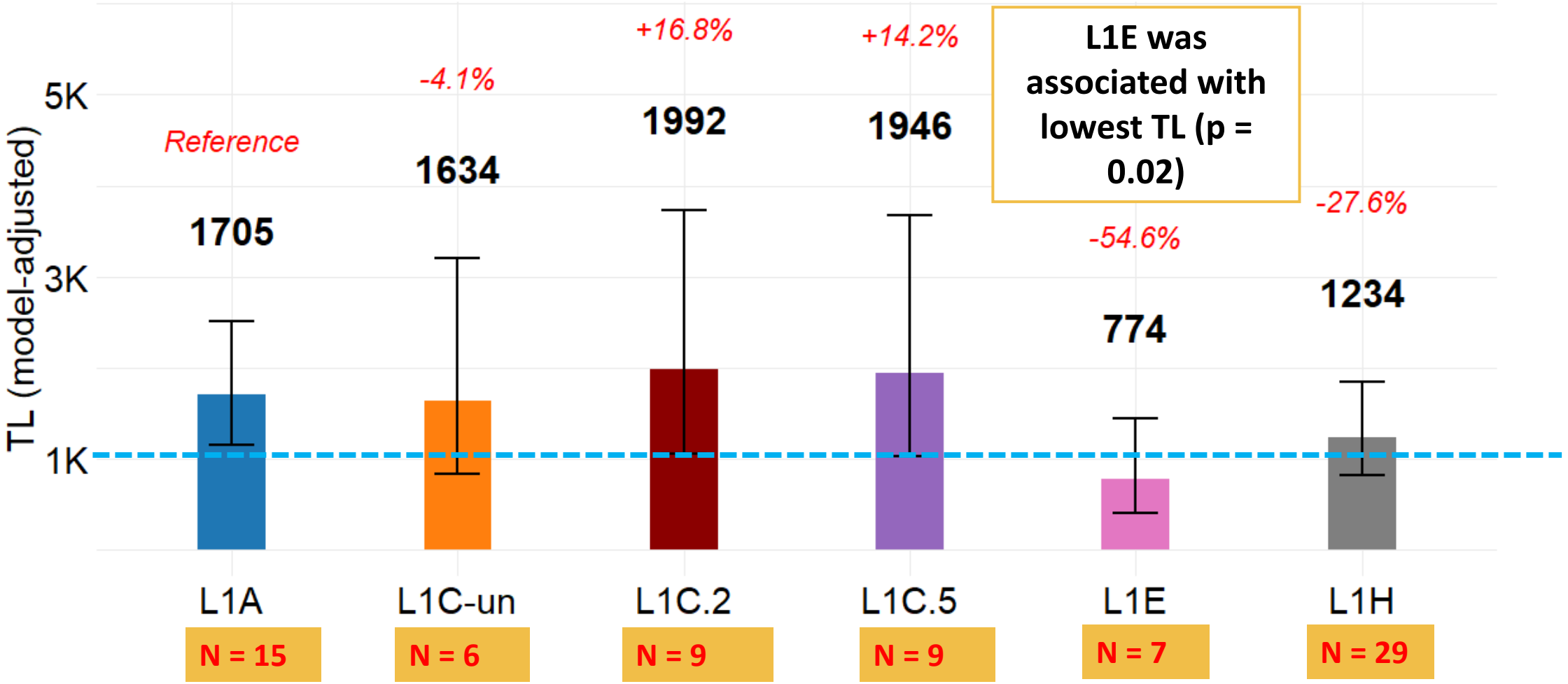


II-VX herds pursuing elimination/stability: Post-break sow exposure solutions on Total Losses

MLV and then LVI was associated with the highest TL compared to MLV only (p = 0.01)



Low and High Prevalence herds: Lineages on Total Losses



L1E was associated with lowest TL (p = 0.02)

*model adjusted by break year

Take-homes

1. **POMP as an Ongoing Resource**: the POMP project remains an ongoing effort to collect more data, which will allow us to refine our models and make more data-driven decisions as we continue to monitor and address PRRS outbreaks.
2. Negative/naïve herds
   i. Highest TL: L1C.2 and L1C.5
   ii. Higher TL: all (LVI and led PRRSV spread naturally) but MLV only (lowest TL)
   iii. Longest TTS: led PRRSV spread natural but Fastest TTS: LVI
3. Stable II-2vx herds
   i. Lower TL than Negative/naïve herds
   ii. Higher TL: L1Cs (.2, .3, .5)
   iii. Longer TTS: L1C.2 but Fastest TTS: L1E
   iv. Higher TL: MLV & LVI, LVI only, LVI & MLV but lower TL: MLV only
4. Low and High Prevalence herds
   i. Lower TL than Negative/naïve and Stable II-2vx herds
   ii. Lineages on TL: no significant differences except lowest TL with L1E

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