Health system and environmental factors affecting global progress towards achieving End TB targets between 2015 and 2020

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The world remains significantly behind in achieving the End TB targets. Key health system factors that have a significant impact on reducing TB mortality include TB financing, TB-specific health service delivery, access to medicines, and governance. Additionally, high concentrations of particulate matter in the air have hindered global progress towards reaching the End TB targets.

BACKGROUND

. Health system and environmental factors may influence WHO End-TB milestones.

. Aim: Measure global progress (2015-2020) and identify contributing factors to TB incidence and mortality reduction.

METHODS

. Data obtained from 10 online repositories for 191 countries .

. Health system performance measures created using Principal Component Analysis (PCA).

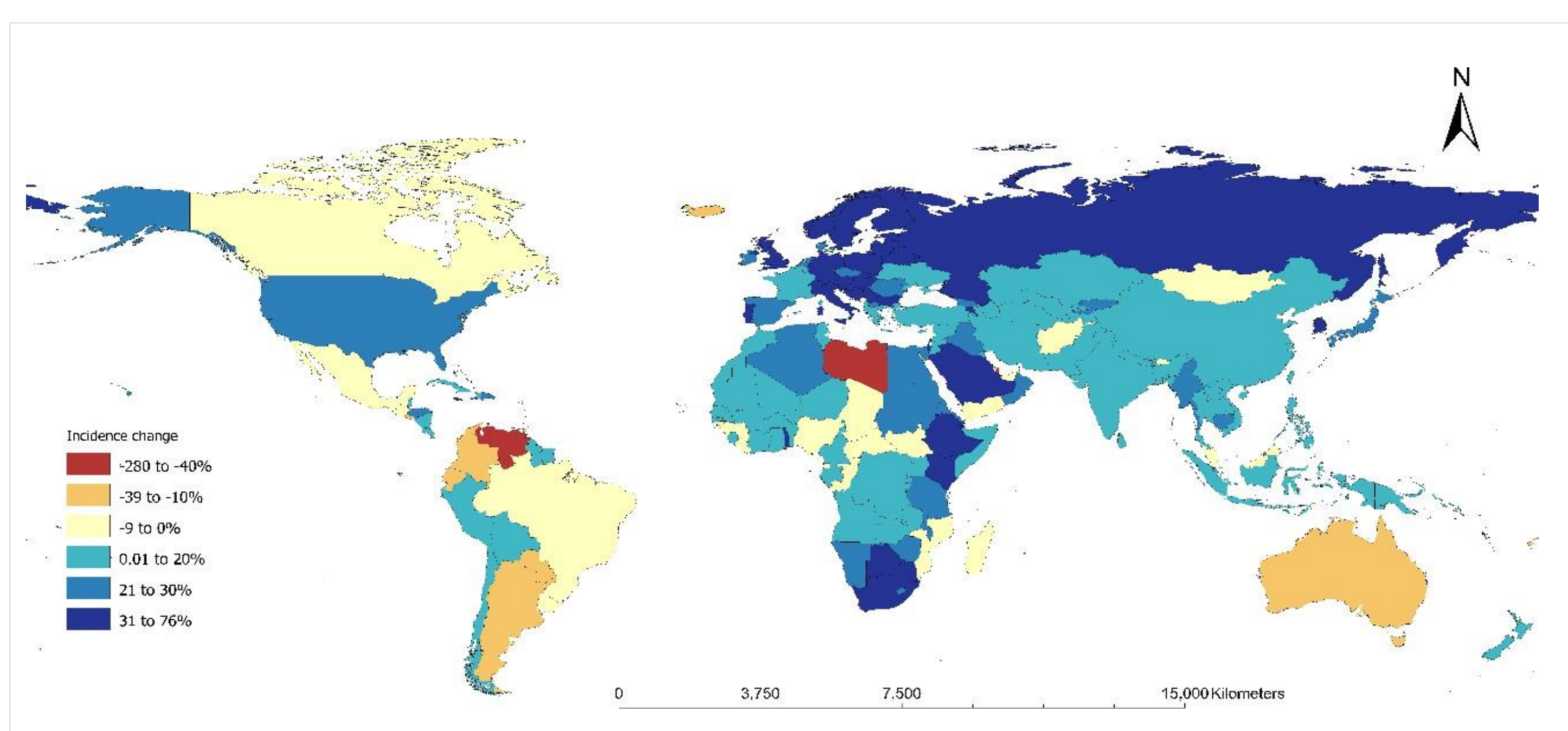. Linear regression model identified key health system and environmental predictors of TB reduction

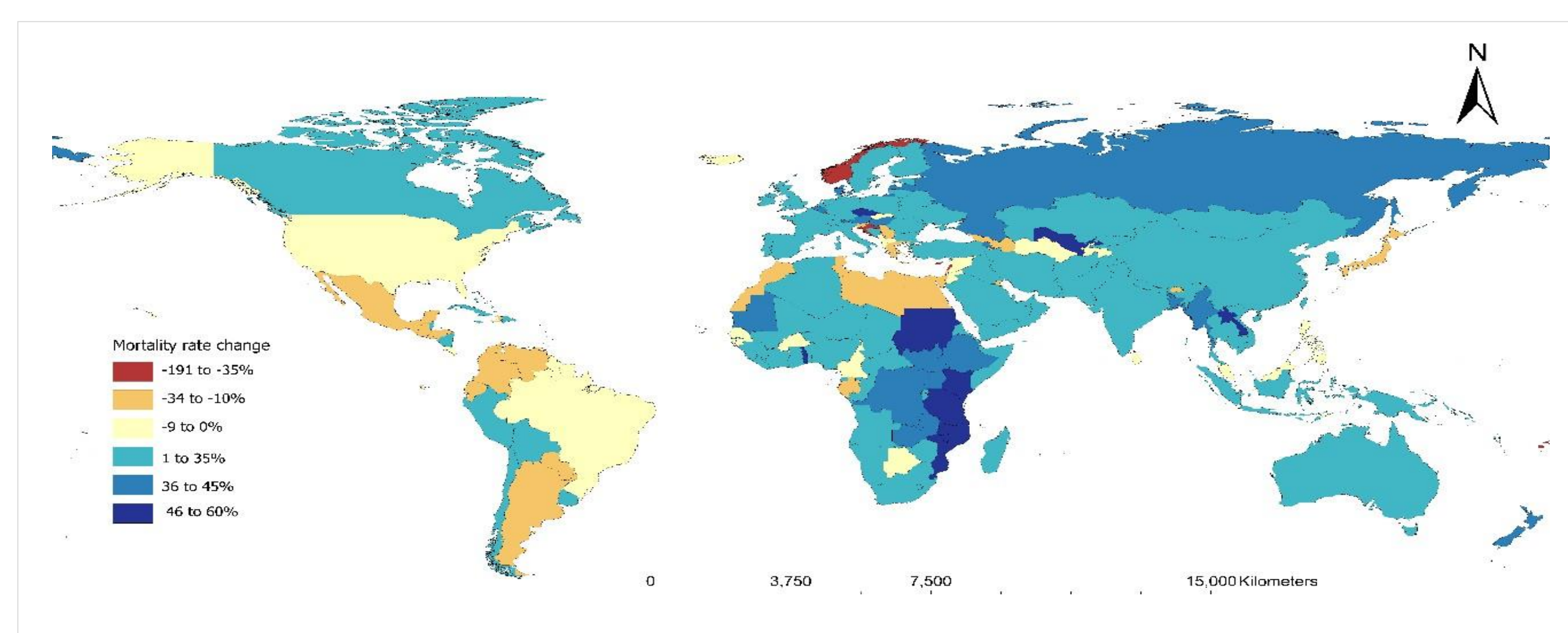## RESULTS

Global and regional progress

- 75 countries (39.3%) achieved over 20% reduction in TB incidence
- Only 31 countries (16.2%) achieved a 35% reduction in TB mortality.
- European region: Only region to achieve the 2020 End-TB milestone with a 25% reduction in incidence.

Country level progress

- TB incidence increased in 42 countries and 7 countries showed no change
- Among high-burden countries Kenya, Russia, and Ethiopia, demonstrated the greatest reductions in TB incidence.
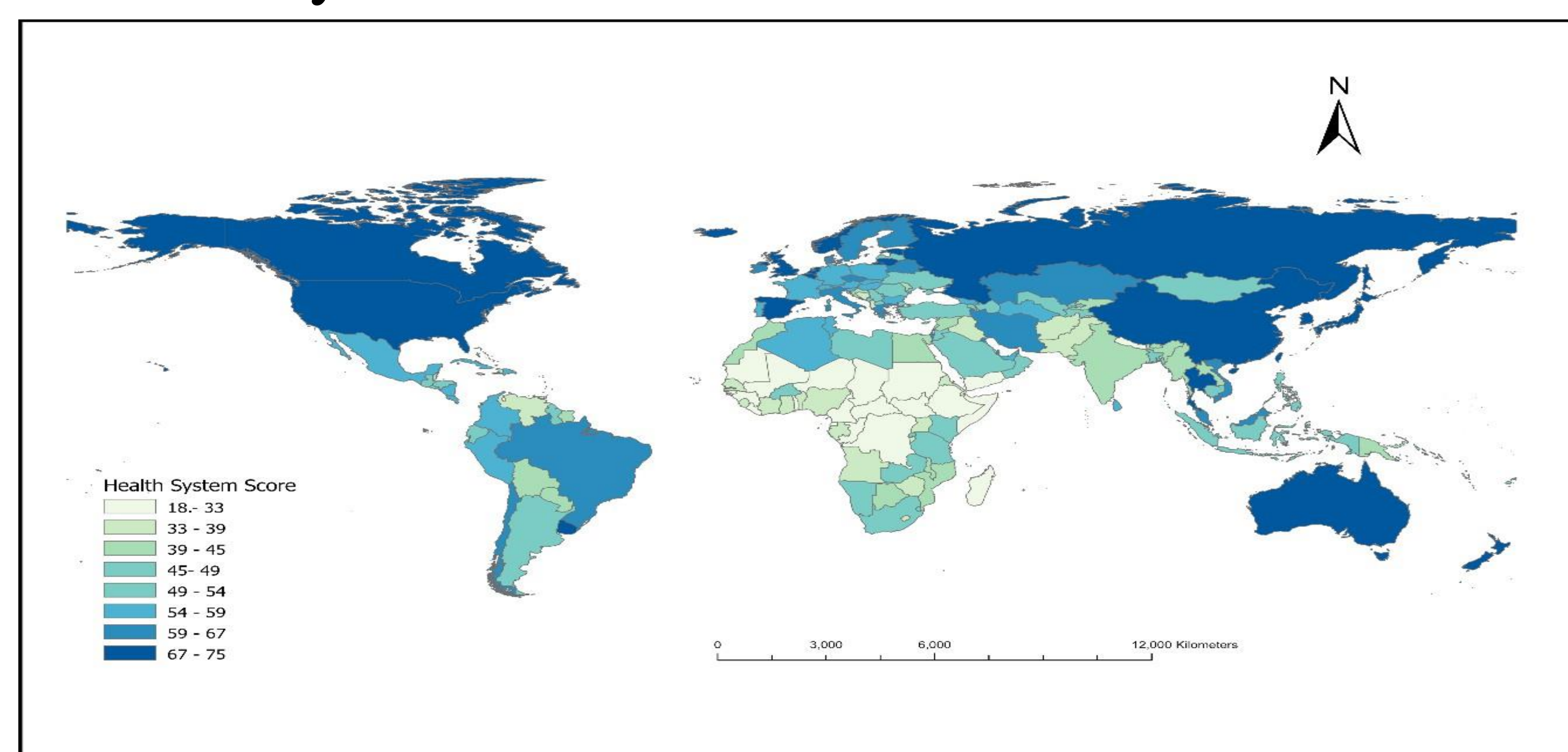

Percent change in TB incidence(2015-2020) : Blue: Countries with highest reduction ; Red: countries with the lowest reduction

Percent change in Mortality(2015-2020) : Blue: Countries with highest reduction ; Red: countries with the lowest reduction

Health system strength

- Equatorial Guinea and the Central African Republic have the weakest health systems.
- Estonia, and United States have the strongest health systems.

Health system(HS) strength of countries : Blue: Countries with strongest HS; Grey: countries with weakest HS

CONCLUSIONS

. Weak health systems are major barriers to achieving End-TB milestones in high TB burden countries.

. Strengthening health systems, focusing on TB financing, service delivery, and access to medicine, is key to achieving End-TB targets.

. Incorporating environmental factors into TB research, prevention, and care programs is crucial.

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