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**Conclusions:** IY-TCM could be cost-effective compared to no intervention with a large estimated social benefit supporting wider implementation of IY-TCM, but results indicate a large amount of uncertainty. Greater benefits and higher certainty of cost-effectiveness for children with conduct problems and those living in a deprived area suggest IY-TCM has the potential to reduce mental health inequalities and may be more cost-effective for schools with higher deprivation and/or a high prevalence of conduct problems.

**Key messages:**

- The Incredible Years Teacher Classroom Management intervention for mental health in primary schools could be considered cost-effective but there is a large amount of uncertainty.
- Greater benefits for children with conduct problems and those living in a deprived area indicates the intervention has the potential to reduce mental health inequalities.

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**Estimated lifetime impact of a school-based intervention for mental health: A microsimulation study**

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**Background:** The prevalence of childhood mental health problems is increasing. School-based interventions have the potential to reduce poor mental health and mental health inequalities. Our aim was to estimate the long-term costs and benefits of the Incredible Years Teacher® Classroom Management (IY-TCM) intervention in primary schools compared to no intervention.

**Methods:** LifeSim, an existing microsimulation model, was used to estimate the lifetime costs and benefits of IY-TCM by linking short-term changes in SDQ based on a previous trial in primary schools (Cluster RCT: 2075 children aged 4-9 years with a 30-month follow-up) to long-term health, social, economic and wellbeing outcomes. Benefits were measured in quality adjusted life years and wellbeing adjusted life years. We examined subgroup based on deprivation, conduct scores and parental depression.

**Results:** Microsimulation modelling estimated small gains in lifetime outcomes including reduced conduct disorder in adolescence and depression in adulthood. Estimates indicate IY-TCM could be cost-effective with a large amount of uncertainty (Net monetary benefit (NMB)=£21, Estimated CI = -£195, £240). IY-TCM was estimated to be more cost-effective for those with high deprivation (NMB = £231, Estimation CI - £99, £231) and high conduct problem scores (NMB=£315, Estimated CI = £45, £483). Total net social benefit for a typical year size group was estimated to be £111m.