If children are to be protected from HIV, the expansion of PMTCT programs must be complemented by increased provision of paediatric treatment. This is expensive, yet there are humanitarian, equity and children's rights arguments to justify the prioritization of treating HIV-infected children. In the context of limited budgets, inefficiencies cost lives, either through lower coverage or less effective services. With the goal of informing the design and expansion of efficient paediatric treatment programs able to utilize to greatest effect the available resources allocated to the treatment of HIV-infected children, this article reviews what is known about cost drivers in paediatric HIV interventions, and makes suggestions for improving efficiency in paediatric HIV programming. High-impact interventions known to deliver disproportional returns on investment are highlighted and targeted for immediate scale-up. Progress will carry a cost - increased funding, as well as additional data on intervention costs and outcomes, will be required if universal access of HIV-infected children to treatment is to be achieved and sustained.