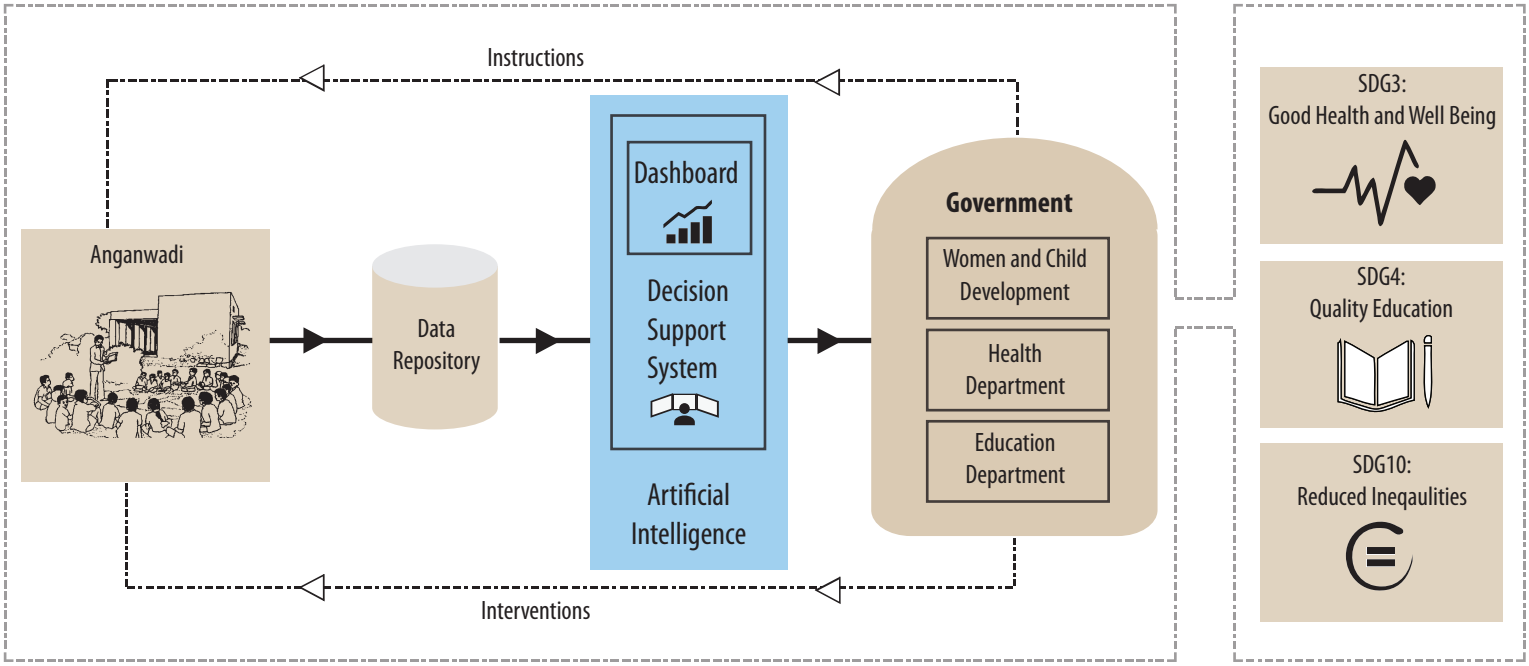
AI for Nutrition: The ICDS program

In the southern state of Karnataka in India, with a population of 64 million, health and nutrition are acute problems among the poor. About 36% of children under the age of 5 are estimated to be stunted and 45% of expectant mothers are anaemic. The maternal mortality rate (MMR) is 133 (deaths per 100,000 live births). The overall indicators show high levels of malnutrition (~45%) among children in several districts.

The government initiated the Infant Child Development Scheme (ICDS) to address these issues. The Scheme delivers nutrition and health services to about a million pregnant and nursing women and 4.5 million children under the age of 6 years through a network of ~66,000 Anganwadis (day-care centres). These Anganwadis typically have one teacher/caretaker and one helper (for meals). The Anganwadi worker records and maintains information about the children and women they serve – from weight to vaccinations. This programme ensures that expectant and new mothers get the required amount of nutrition and children of working mothers are taken care of during the day.



CSTEP is attempting an innovative artificial intelligence (AI) based approach to augment the management information system under implementation. The analyses yielded from this initiative will help to identify lagging districts, Anganwadi centres or even individual children. The interventions could include increasing supplies to particular Anganwadis, dispatching health professionals to monitor the health and nutrition of children, and identifying special educational needs of children. The system will be designed to provide powerful visualisations for decision-makers and state-of-the-art algorithms for timely interventions. Known AI techniques/algorithms will be used for the latter.

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