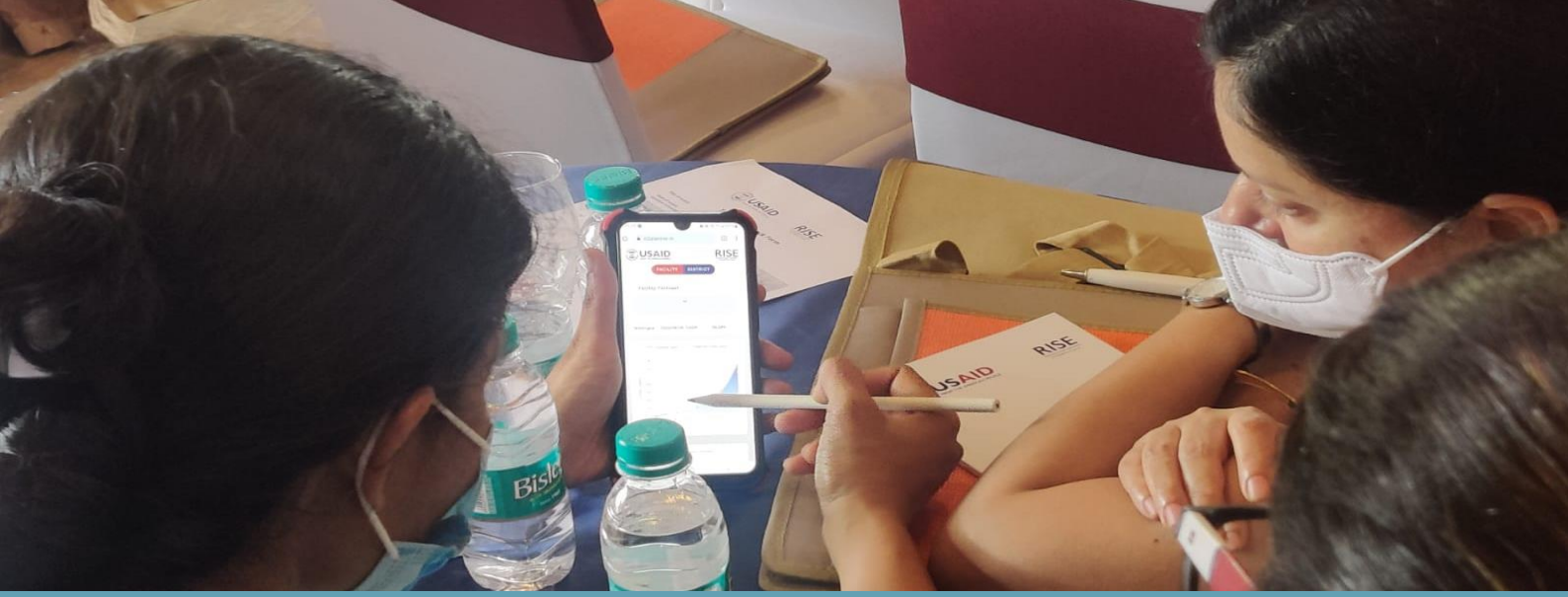
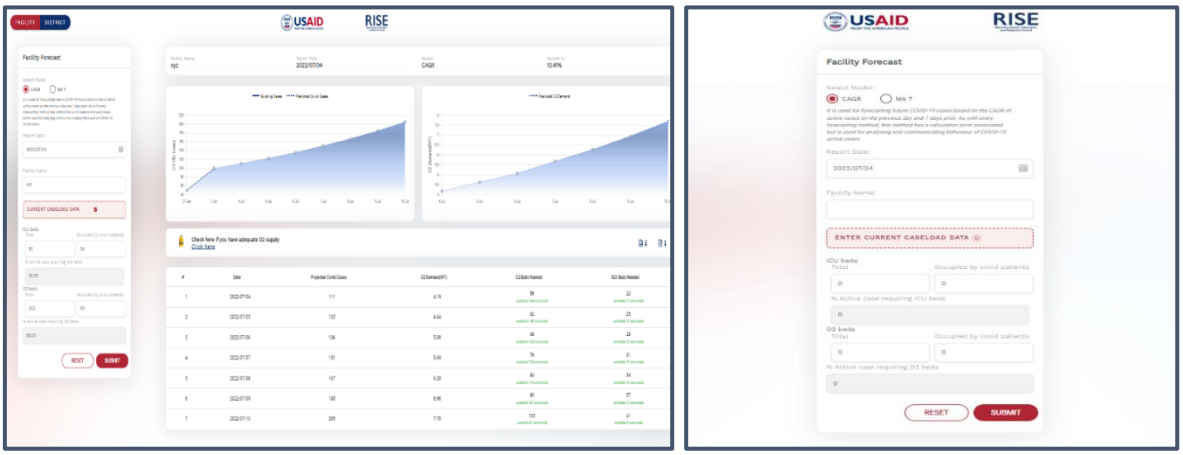


O2 Planner – A Digital solution for Covid-19 preparedness

Adequate and easy-to-use digital tools across various aspects of the oxygen management and response emerged to be a critical response requirement during the third wave of the pandemic. One such requirement was for an immediate-term planning tool that could be used by anyone – facilities, districts, private health sector, or public health practitioners. PATH has been working on providing this support by developing and enabling relevant digital tools which can help with decision-making process while also considering the forward-looking vision for being in a ready state for the next wave of pandemic as well as from a sustainability perspective of such interventions.

To address this, under the USAID RISE grant, hired an agency (Everwell Health Solutions) to develop a publicly accessible oxygen demand estimation and need prediction tool which would help with the decision-making process while considering the forward-looking vision for being in a ready state for future waves. The oxygen planner is available on open source here: www.O2Planner.in .

The planner, developed during the third wave, successfully fulfilled key requirements of multiple states, including the need for a publicly available planning tool at the facility and district level that is nuanced and adaptable to the evolving nature of the pandemic. The simple models of prediction used and customization of variables with the progression of the pandemic enhanced the versatility of the tool. Furthermore, user-friendly design features such as minimized entry of information by users made the tool suitable for immediate-term planning, which is essential during crises. Thus, the tool is expected to smoothen the audit and monitoring process of oxygen usage in public facilities and help various stakeholders such as on-ground teams and personnel to judiciously navigate the oxygen
The O2 planner consists of two sub tabs depending on the user - a facility-level calculator; intended for facility-level oxygen demand projection and a district-level calculator; intended for district level oxygen demand projection.



Screenshots from the O2 planner tool (Note-data not representative of any health facility)

The planner gives the user ability to see how many oxygenated beds, ICU beds, and oxygen (in metric tons) the facility will require. The tool provides the following benefits to the users and the state. There is no overlap with government's initiatives, it enables to change modelling based on the changing parameters of new variants, offers MS Excel and PDF downloads of all graphs and tables, optimized for mobile use and no locally stored data or privacy issues – all data is either pulled from public dashboards or entered by the users.

The rapid deployment of the planner was in line with the urgency on-ground during the pandemic. Needs gathering, concept design, coding, and going live was all completed under three weeks. It was made possible by the swift response of the on-ground program teams, the agile development process, and the strong feedback mechanisms. The tool is crisis ready and designed to assist users when long-term planning is not possible. Even though we have luckily not been in a situation akin to the second and third wave, the oxygen planner has seen some high initial usage and received positive feedback indicating the desired efficiency in times of crises being achieved.

Users have run over a 1000+ calculations on the O2 Planner, with 510 unique users having accessed it as of June 2022. The average time the user spends on the tool is roughly four and a half minute – which aligns with the average time required to run a calculation. Indicating the desired efficiency in times of crises is being achieved.

Decision-makers and administrators faced multiple challenges during the second and third wave of COVID-19. These challenges included lack of on-ground visibility of oxygen sources, demand, and logistics, as well as lack of accountability for oxygen usage in the health ecosystem. The planner contributes to the state's preparation for future waves and beyond for COVID-19 where a sudden surge in demand would require in-flow of oxygen into the facility. Supporting districts on taking key decisions with respect to oxygen using data analytics that would provide valuable insights to the decision-makers managing a crisis. The current crisis and role of oxygen has nudged the decision-makers to utilize digital solutions and ensure data-driven decision-making while managing the health ecosystem. This would ensure sustainability of the solutions for years to come.