

REWIRED 2023: WNB AI Innovation Programme

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Introduction:



We estimate Was Not Brought (WNB) cost ten trusts an average of £13.2m annually. A National Paediatric Accelerator Programme Board agreed to invest £1 million to successfully deliver a programme of work to reduce WNB rates and improve patient access.

Hosted by Alder Hey Innovation Centre, WNB AI Innovation programme launched in December 2020 focussing on the information governance. In March 2021, each trust was awarded £75k of funding to support the delivery of their individual pilot project and take part in:

- **Deploying Technical Innovation** – developing, rolling out and embedding the WNB AI predictor tool into the 10 hospitals, whilst the Alder Hey team created the tool into an NHS product using Innovation life cycles.
- **Create Health Inequalities Interventions** – through bespoke pilot schemes, aimed at reducing inequalities by lowering the variation in rates of WNB in children from underrepresented population

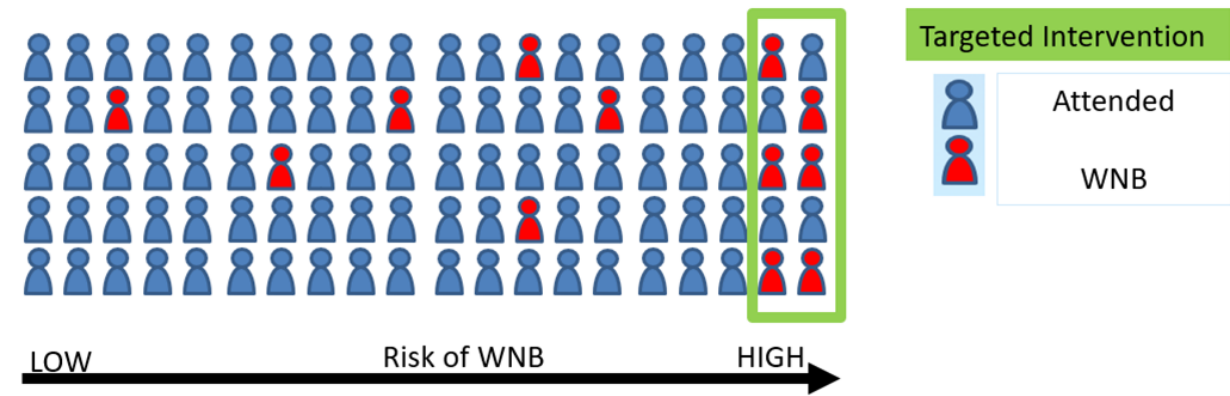
A programme management structure was set up with the necessary governance and in design and deliver collaboratively. The Programme Board also agreed upon a standard provide a final evaluation of this programme.





Technical Innovation process:

Trusts have submitted outpatient data sets averaging between 300,000 – 500,000 records into Microsoft Azure. The Alder Hey Innovation technical team have delivered over 200+ sets of WNB AI predictor tool results. There have been some challenges throughout the process, and supporting trusts to use the predictor tool has been a priority for the technical team.



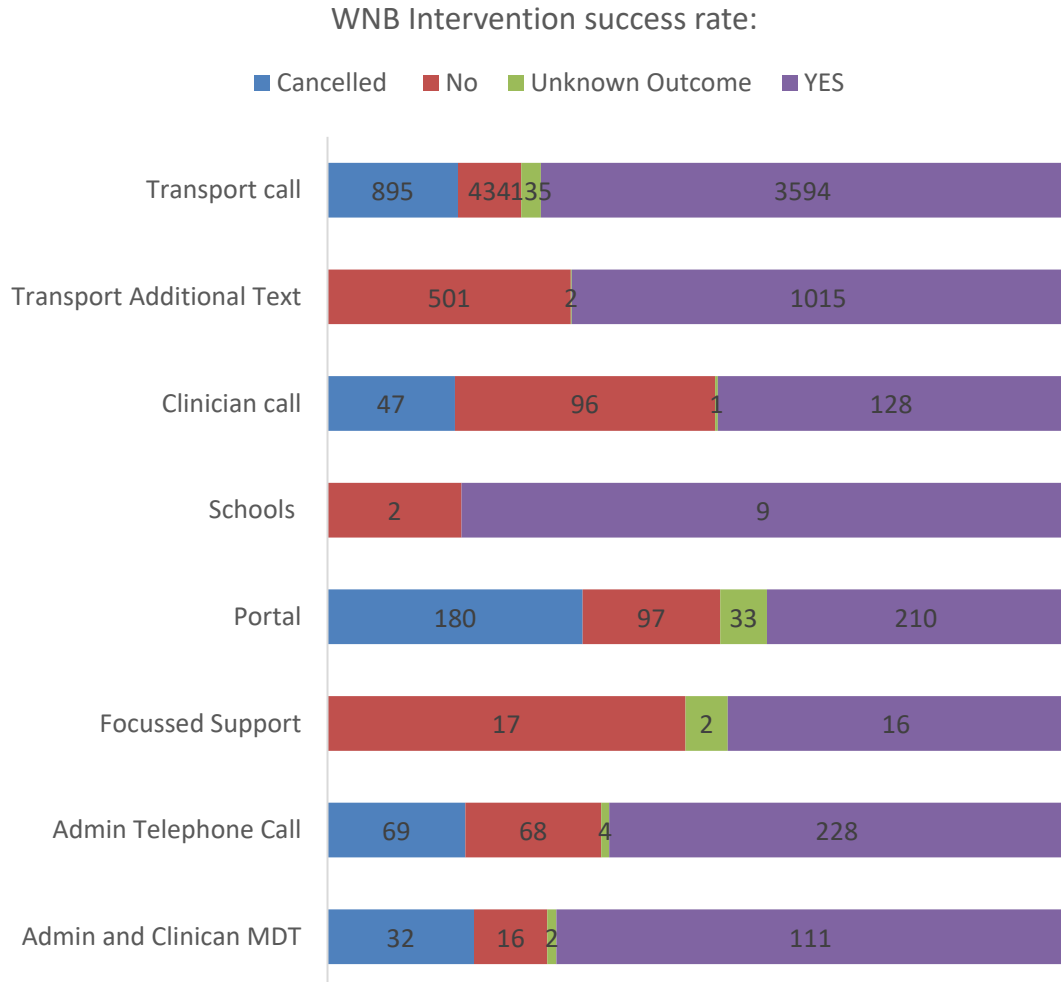
Difficulties:

- **Technical BI Capacity and data quality** have been noted as a significant barrier to regular data flows between Alder Hey and the provider trusts, factoring BI resource into plans is essential.

Consequences:

- **Data quality** - WNB AI algorithm will only accept templated data.
- **Capacity** - The project team worked around trust Technical BI capacity, the Alder Hey Innovation Centre quickly agreed upon a fast follower site, to test proof of concept at every stage.
- **Innovation** - Not having the final version of the WNB AI software-as-a-Service product to trusts use from day one.

Was the intervention successful? Success rates costs/ value for money/time



The WNB evaluation has collated and analysed 7944 WNB AI interventions. The biggest drivers for a WNB are the waiting date since bookings are made and the time to treat the impact on WNB rates within all trusts. Overall, 69% attended the appointment and a further 20% cancelled and rebooked their appointment after an intervention.

Difficulties:

- **Capacity and competing priorities** were the biggest barriers for operational staff delivering the pilot interventions.
- **Data quality and incorrect demographics** data were a source of frustration “wasting valuable time” trying to deliver the interventions.

Consequences:

- **Creating capacity** – the use of additional methods and additional posts for WNB coordinators, supporting services with high WNB rates.
- **Better demographic data** - is a necessary requirement, one trust is scoping using local authority educational data extracts which could help provide accurate data.



Recommendations:

- **Business Intelligence and Operational Capacity** - Having technical and operational capacity to produce, interpret and validation the data is really important.
- **WNB AI & Clinical EPR system interoperability** – Both Alder Hey and Sheffield automated some of the WNB AI processes linking it with the EPR to improve efficiencies creating dashboards and text messages, the learning from the pilots will be shared across the CHA.
- **Adoption and Spread** – We are working with all trusts to make sure the best practises are implemented and the WNB AI tool is spread across Outpatient services. Over thirty members of staff were interviewed as part of the evaluation reflection workshops and the majority welcomed the development of health inequality focussed interventions recognising the need for targeted action.
- **DNA/WNB AI NHS Product and Pipeline** – Alder Hey Innovation Centre are currently working on a WNB commercial model in response to interest received nationally. Looking at other speciality models, for example Women’s, Adults and CAMHS, respectively.

