



Nourish to Flourish Data Sharing & Analytics Initiative for K-12 Schools

Background

In March 2017, the first National Nourish to Flourish summit brought together 240 thought leaders and stakeholders committed to the nourishment and well-being of America's children — to help inspire, inform and invest in work that will foster excellence in the school meals experience. Following a deliberative process engaging multiple industry perspectives, the N2F Food Matters Work Group identified two key concerns to guide industry-wide innovations aligned with the N2F mission. This two-minute video provides an overview of the [Nourish to Flourish Data Sharing & Analytics Initiative](#).

Why don't more kids eat school meals? Increasing participation in school meal programs by students is an extremely common challenge, even in schools in which all meals are free to students. Jointly with N2F, a research study was commissioned in collaboration with Chicago Public Schools (CPS). Dr. Joanna Buscemi, a behavioral psychologist at DePaul University, and her team are applying their expertise using various parent/guardian and student focus groups across six demographically diverse CPS high schools. They will identify key factors impacting school meal participation while helping to inspire innovative solutions.

How do we measure success? From antiquated record keeping methods to a lack of standardized product numbers, manufacturers and food service personnel struggle to have a clear picture of the food's origin, nutritional components, and allergy information. This limits schools, suppliers, N2F work groups, and other stakeholders from being able to objectively measure the impact of operational changes and other innovations. To address this, the team has developed the Data Sharing & Analytics Initiative for K-12 Schools, which integrates industry standard supply chain technology with existing K-12 food service processes to streamline record keeping and improve tracking, accountability, and the ability to measure success.

Technology Vision

The most important component of measuring success is for everyone to "speak the same language." Only when all stakeholders are tracking, sharing, and analyzing data in a standardized format can decisions be made that scale across all schools. We have committed to using the existing Global Data Synchronization Network (GDSN) to standardize data collection to meet USDA requirements and maximize data analytics capabilities for stakeholders throughout the K-12 community. Suppliers share the information about their products to streamline school menu planning and production operations, and schools share their operational performance to compare across schools within a district and across similar districts nationwide. This provides valuable insight for management decisions and new tools for traceability to assure food safety. Deeper analysis offers a pathway to predictive analytics to spot positive or negative anomalies to target specific actions. All data sharing will be handled via secure, read-only connections that do not include any identifiable information at the district or student level. Data sharing practices will be defined within a Privacy Policy and be FERPA and COPPA compliant.

Stakeholders: Multiple stakeholders are involved in the design and testing of this solution, including, program operators, state agencies, suppliers and distributors, ag groups, GPOs and national policy groups. Each is providing valuable input and feedback to the development of the solution by identifying and refining their informational needs.

Methodology: N2F has committed to using inTEAM as its technology provider for a series of pilots to help develop the standards and mechanisms for data sharing and analysis. Pilot school selection is based on differential demographics, food delivery systems, and suppliers. Pilot schools will be limited to one school per district to minimize disruption and will begin in January 2019, operating for an 18-month period.

inTEAM will provide beta software, training, and support throughout the pilot, initially focused on menu planning and production records that integrate GDSN protocols to make those processes more efficient. These applications will manage the standardized data exchange and eventually incorporate analytics capabilities based on stakeholder feedback as part of the pilot. It is not necessary for schools to uproot any existing systems during the pilot period—the beta software can run parallel to legacy systems or substitute for those systems with some additional functions at a single school.

Business Model Transparency

inTEAM has updated its existing software platform to meet the needs of the N2F vision and has agreed to provide licenses to pilot sites at no cost to gather and analyze the required data serving the Food Matters and other N2F work groups. All software is cloud based and accessible with a web browser and/or mobile apps. Therefore, there is no financial commitment for the software tools needed for schools or suppliers to participate in this process, only an investment of time to help design and test this model.

Upon completion of the pilot, inTEAM, in consultation with K-12 stakeholders active within the Nourish to Flourish initiative, will publish open data standards, including GTIN attributes and school operational attributes (subject to FERPA and COPPA restrictions), for its platform to create compatibility with any school nutrition software. There is no obligation for pilot schools to continue using the software following the pilot period, although the current plan is to allow schools the option of continuing to use the N2F software at no cost. Suppliers will have the option to subscribe to the new data analytics platform containing a single database supporting real time queries from stakeholders.

Pilot School Participation

Pilot schools will be asked to assist with conducting the pilots including:

- Review and execute the N2F School Pilot Agreement regarding data access, sharing, and security in compliance with regulations including COPPA, FERPA, and typical state and local policies governing data security and management.
- Assist with obtaining and matching GTINs for current contracted items used in Menu Plans and Recipes. This may include requesting Suppliers to publish GTIN Attributes to the N2F data pool.
- Assist in setting up local protocols required to upload and download approved data exchanges to and from a centralized data server to improve and better manage the supply chain.
- Provide feedback to refine standards for GTIN attributes and upload specifications, as well as Key Performance Indicator (KPI) reporting formats.
- Once the measurement tools are in place, evaluate the local feasibility to test various innovations originating from other N2F Work Groups and the De Paul/CPS research study. Examples might include: Made to Order sandwiches, introducing new products and brands, integration with mobile app communications, student ratings, establishing loyalty programs, and line queueing strategies.
- Identify a single point of contact, possibly a dietetic intern or program manager, for the N2F Pilot to ensure that the program runs well and to help identify and resolve any issues at the Pilot Site.
- Coordinate with State and Regional Dairy Councils throughout Pilot life cycle.

Key Dates: The N2F school pilots will follow an aggressive timeline for implementation, and rapid cycle testing of the data attributes and various interventions custom to the needs of the participating schools. Key dates include:

- Mar 2017: Initial N2F Food Matters Work Group Start
- Oct 2018: Initial Infrastructure Development and Stakeholder Engagement/Recruitment
- Dec 2018: School Pilot Selection Finalized and School Agreements Signed
- 1Q 2019: 18-month Pilot Started
- Jun 2020: Pilots Completed and Industry Standards Published

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