



DICKSON insights

Fall 2015 • CD293



VACCINE DATA LOGGERS

Temperature Safety Is
Back In School

See Insert

FOCUS ON VACCINES

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With One System 7

Dickson Behind The Scenes

A Little Insight Into Insights

MATT MC NAMARA • PROJECT MANAGER • **INSIGHTS** INTERIM EDITOR-IN-CHIEF

A bit of housekeeping before we dive into this month's issue.

If you've been following **Dickson Insights** for the last two years, you've read a lot of articles and content created by Michael Miller. Michael was recently awarded a Fulbright grant and by the time this issue hits your desk will be halfway across the world in Indonesia. There, he'll be teaching English and researching the local culture. It is an amazing opportunity and we at Dickson are incredibly excited for him.

Moving forward, not much should change. Our goal is to continue to create high quality and engaging content that you and your team will find interesting and useful.

We not only plan to re-hire Michael's position, we'll also be hiring another individual at the same time. While not all the details are hammered out, the current thinking is the Content Strategist will do the majority of the writing and planning, while a Marketing Coordinator will help with execution, planning, and tradeshow work Michael had been doing on top of his writing.

As always, we like to keep an open dialog with our customers, so if you have any feedback, suggestions, questions or otherwise, we'd love to hear from you; just email content@dicksondata.com.



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TEMPERATURE MAPPING SERVICES

KEEPING YOUR PRODUCTS SAFE

HOW IT **WORKS:**



CALL US: 630.543.3747



WE MAP TO YOUR NEEDS



WE PROVIDE DIRECTION

WHAT YOU GET:

- Warehouse Mapping
- Problem Spot Analysis
- Refrigerator, Freezer, and Incubator Mapping
- Control System Analysis
- Acceptance Criteria Creation
- Temperature Recovery Studies
- Self-Mapping Kits
- Temperature and Humidity Monitoring Consultation

WHAT WE OFFER:

- 90 Years of Temperature Mapping Experience
- A team of expert Sales, Consultants, Engineers, and Mapping Technicians
- 21CFR11 Compliance
- High Accuracy, High Reliability Data Loggers
- A2LA Calibrated Temperature Recorders
- Secure Data Recovery, Analysis, and Distribution



Dickson Examines: The Benefits Of Vertical Farming

For millennia, farming has relied on good weather, plenty of water, and a lack of crop-killing pests; anything other than that could result in a dearth of crops. As it turns out, farmers may no longer need access to dozens of acres of land or perfect weather for growing produce. Instead, vertical farming is growing as an alternative to traditional farming techniques. Pioneered by microbiology and public health professor Dickson Despommier, vertical farming takes advantage of abandoned buildings and other vertically inclined spaces to grow plants and crops through the use of hydroponic techniques.

Today, vertical farming uses tightly controlled indoor conditions to grow agricultural products like fruits and vegetables. By using environmental monitoring products like temperature monitors and humidity data loggers, indoor farmers can guarantee productive farms and regulated growing environments.

One of the biggest benefits of indoor farming is that it requires much less water and light when compared to growing crops outdoors. Watering is tightly regulated in indoor farming, and any extra water is usually

collected and recycled for later use; however, the most important aspect of vertical farming is the exclusion of natural sunlight in favor of specific wavelengths of light emitted on an alternating schedule by LED lights. Since crops grown outdoors need different wavelengths to grow, traditionally grown crops require much higher energy input to grow properly.

Aside from needing fewer resources, another major benefit of vertical farming is that it cuts back on food waste. By having vertical farms in cities, food can be delivered to stores that are shorter distances away. This means that less food is wasted because there's less time for it to spoil en route to the store; plus, new technologies (such as anaerobic digesters) will allow future vertical farms to use food waste as fuel for their electrical and heating systems.

Vertical farming also circumvents several of the disadvantages of outdoor farming. Food production can take place year-round, and without the risk of severe weather, plant diseases, and insect infestations, indoor farming has a much higher success rate than outdoor farming. In fact, Despommier estimates that a 30-story vertical farm could feed 50,000 people a 2,000 calorie per day diet for an entire year.

DicksonOne

Wireless Temperature and Humidity Monitoring



HOW IT WORKS

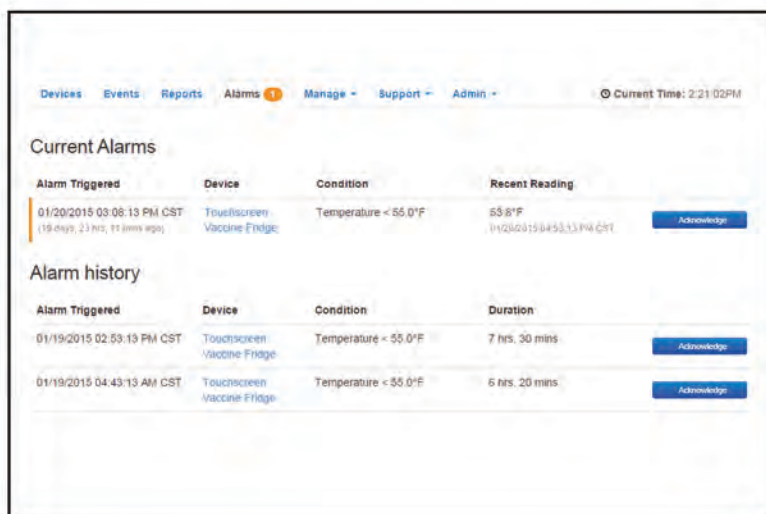
When you log onto **DicksonOne.com**, your environmental data, from every location, appears before your eyes. Charts and pens, get outta here. USB cords and software on a disc, you too. **DicksonOne** Loggers transmit your data wirelessly to the **DicksonOne** Cloud, where you can access it anytime.



Power Over Your Environment

EMAIL, TEXT & PHONE CALL ALARMS

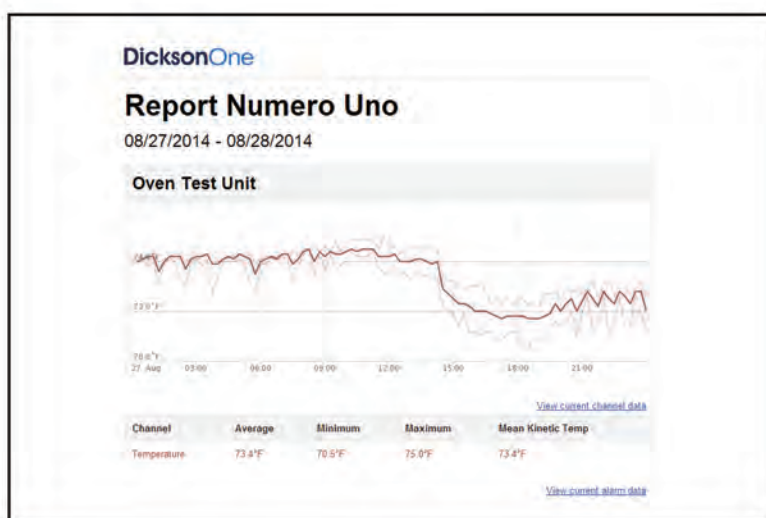
When something bad happens in your facility, **DicksonOne** can send anyone in your organization an email, text, or phone call. Temperature too high? Humidity too low? We've got you covered.



CUSTOMIZABLE REPORTS

The **DicksonOne Reporting Suite** allows you to:

- Create and customize reports of any and all your loggers
- Choose who in your organization will receive which reports
- Change and modify the frequency of reports



WAREHOUSE



Warehouse Loggers



WFH20 \$499

MEDICAL



Medical Loggers

NEW!
DETAILS P8



ENT21 \$479

Meet The New **DicksonOne** Logger



THE BEST JUST GOT **BETTER**

Larger, More Detailed Display ▪ Compatible With New Universal Replaceable Sensors
Over The Air Updates ▪ Smaller Footprint
Updated Design



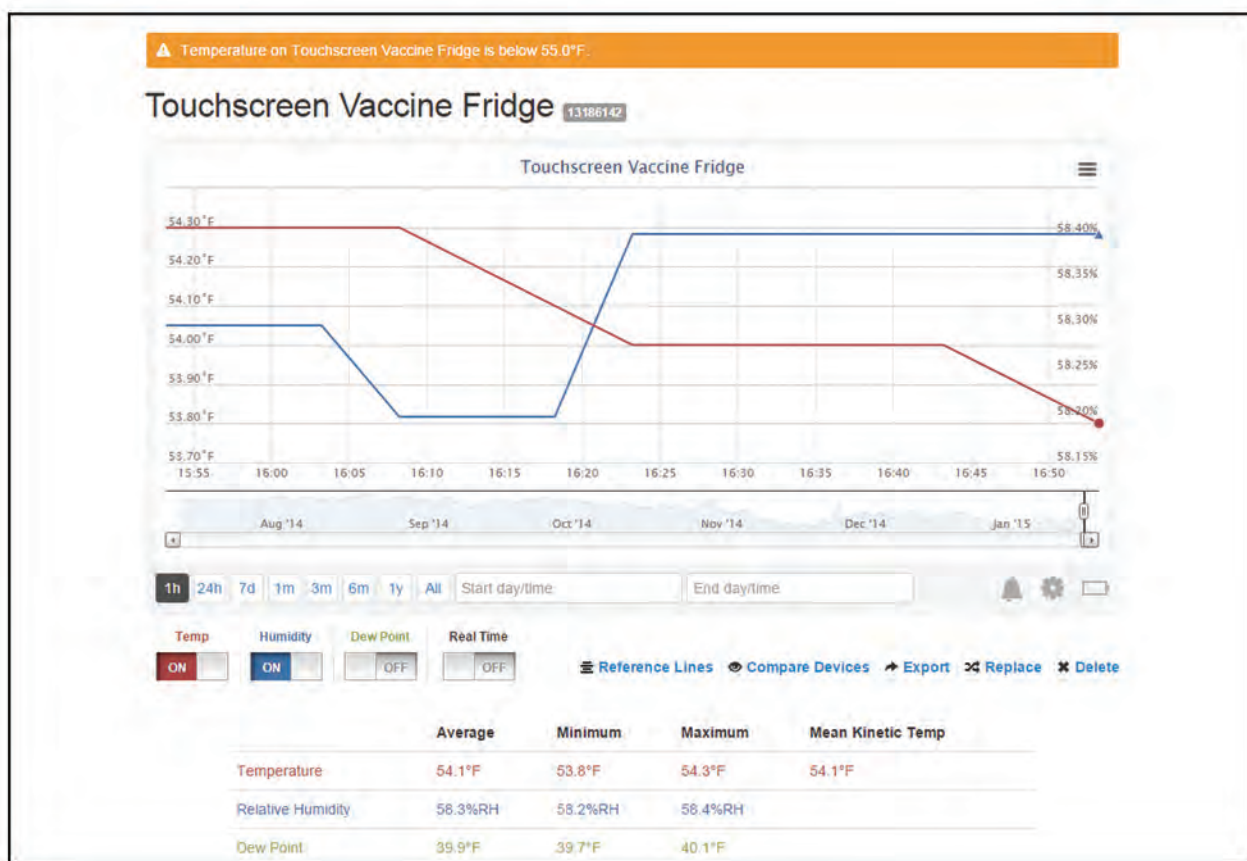
DicksonOne Touchscreen Loggers

Our goal when designing the new line of **Touchscreen Data Loggers** was to create a feature-heavy and easy-to-use device that allowed users access to their entire data history, anywhere. We pushed the limits of connectivity, user-interface, and functionality, to deliver the most robust data logger on the market.

Data At The Source

- 1 **The Graph** Your environmental history just got a whole lot easier to navigate through. We overhauled the user-interface, and made it easy to view and manage your data.
- 2 **Your Channels** Every touchscreen will automatically calculate the minimum, maximum, and average temperatures of your selected view.
- 3 **Real-time Monitoring** Push the play button, and your device will update back to the most recent set of readings.
- 4 **Device Settings** Your Touchscreen is robust. When you navigate your devices settings, you can adjust sample rates, set alarms, and connect to DicksonOne.





NOW WITH DICKSONONE

The **Touchscreen** now gives you the option to connect directly to **DicksonOne**. You get all of your data at your fingertips, and now you can access it anywhere, too. Just connect your device to your local WiFi network, or plug it into an Ethernet port, log into **DicksonOne**, and boom, complete data control.

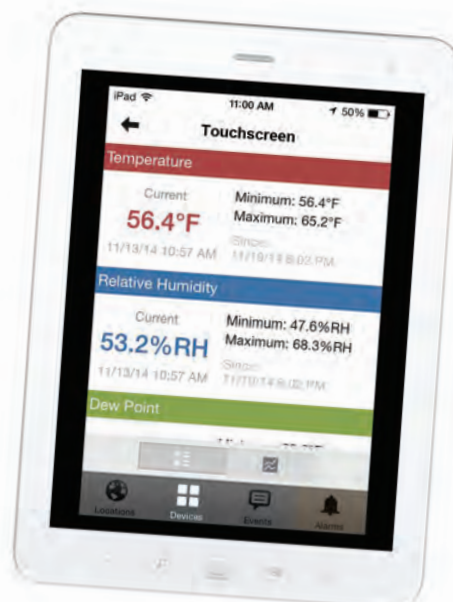
DicksonOne Allows You To

- Get email, text, or phone call alarms from your Touchscreens.
- Access every one of your Touchscreens' data history on one website.
- Generate customizable reports, delivered directly to your inbox when you want.



The new Touchscreen allows for USB download to DicksonWare.

Only DicksonWare A017/A027 will function with Touchscreen Loggers.



DicksonOne Touchscreen Pricing

MODEL	REMOTE PROBE	PRICE
TSB	USB Download	\$424
TWE	DicksonOne WiFi/Ethernet Connection and Download	\$524
TWP	DicksonOne Download and Power over Ethernet	\$599



The TSB, TWE, and TWP all allow for basic USB download independent of DicksonOne. Use DicksonWare A017/A027 for USB download with these models.



DicksonOne Display Logger Pricing

MODEL	REMOTE PROBE	PRICE
DWE	DicksonOne WiFi / Ethernet Connection and Download	\$424



DicksonOne Software Pricing

DEVICES	FEATURES	PRICE
1 to 10	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	\$300/year
11 to 25	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	\$725/year
26 to 50	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	\$1400/year
51 +	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	Call for Quote

* Dickson offers a Basic Plan with a rolling window of 30 Days of data. One hour sample rates for unlimited loggers at no cost.



Calibration In Five Seconds



HOW REPLACEABLE SENSORS WORK

Dickson Replaceable Sensors are Dickson's answer to the headache of calibrating your temperature or humidity monitoring device. When your device needs to be calibrated, just pop off your sensor, and pop on a new one. It's that easy. Now when you order a DicksonOne or Touchscreen Logger, you get the benefit of never having to ship a logger back to us again.

WITHOUT REPLACEABLE SENSORS

1. Order a recalibration for your device.
2. Acquire a Return Authorization Code from a Dickson Representative.
3. Take unit out of its environment.
4. Move products out of environment/install backup monitoring system.
5. Box unit up.
6. Ship unit to Dickson.
7. Dickson recalibrates unit and ships it back.
8. Receive the unit.
9. Disassemble backup system/move product back into environment.
10. Reinstall unit/system..

Total Down Time: 7-10 Days



WITH REPLACEABLE SENSORS

1. Order a Replaceable Sensor.
2. Take old sensor off, put new sensor on.

Total Down Time: 0 Days

All DicksonOne and Touchscreen Loggers are
RS COMPATIBLE.

High Temp Solutions



- 1 HT 300 Waterproof, High Temperature Data Logger**
HACCP and FDA Compliant. USB Download. IP68 Rating. Temperature Range -40° to 257°F (-40° to 125°C). **\$349**



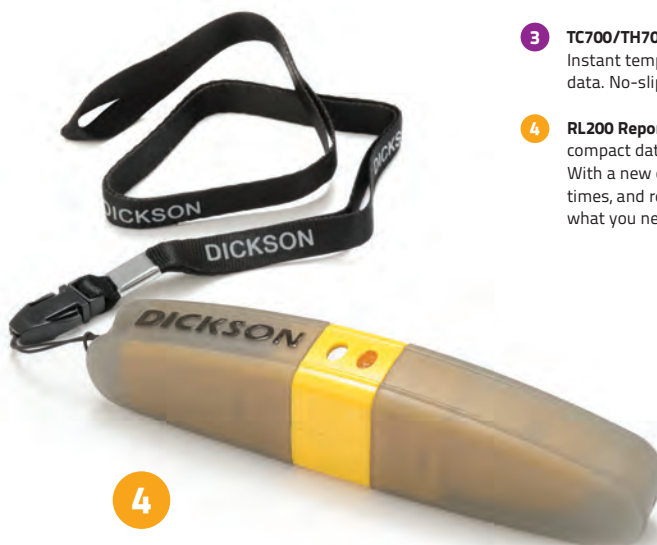
- 2 HT350 High Temperature Process Logger** HACCP Compliant, K-Thermocouple Probe, USB Download, and a large temperature range. Temperature Range -40° to 257°F (-40° to 125°C). **\$349**

D605 Probe sold separately. For more information on Dickson's Probes and Accessories, visit dicksondata.com.

Instant Data Solutions



- 3 TC700/TH700 Touchscreen Handheld Indicator**
Instant temperature or temperature/humidity data. No-slip silicone cover. Battery powered. **\$299**



- 4 RL200 Report Logger** We decided to make the best compact data logger on the market, our RL200. With a new outer case, user selectable logging times, and redesigned PC interface, it's exactly what you need. **\$59**

Mapping Data Loggers

From warehouses to refrigerators, these data loggers are perfect for your next mapping project.

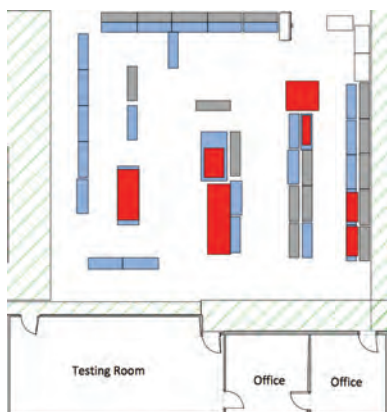
- 1** **SP125 \$119** Temperature Logger. Accuracy $\pm 1.2^{\circ}\text{F}$, $\pm 0.67^{\circ}\text{C}$. Range -10 to 176°F , -23 to 80°C .
SP175 \$229 Temperature Logger with Thermocouple Probe. Accuracy $\pm 1.8^{\circ}\text{F}$, $\pm 0.1^{\circ}\text{C}$. Range -300 to 2000°F , -30 to 50°C . A203 Probe required for $+500^{\circ}\text{F}$.
TP125 \$199 Temperature and Humidity Logger. Accuracy $\pm 0.8^{\circ}\text{F}$, $\pm 0.45^{\circ}\text{C}$. Range -10 to 176°F , -23 to 80°C .
- 2** **SK550 \$699** Temperature. Pack of twelve. Accuracy $\pm 1.8^{\circ}\text{F}$, $\pm 1^{\circ}\text{C}$. Range -4 to 158°F , -20 to 70°C .
TK550 \$999 Temperature & Humidity. Pack of twelve. Accuracy $\pm 1.8^{\circ}\text{F}$, $\pm 1^{\circ}\text{C}$. Ranges -4 to $+158^{\circ}\text{F}$, -20 to $+70^{\circ}\text{C}$.

Software required and sold separately.
For software and other accessories, call **630.543.3747**
or go to **www.DicksonData.com**.

1



2



DICKSON Temperature Mapping Services

Ninety years of temperature monitoring experience at your service.

Dickson now offers temperature mapping and temperature mapping consulting services. We provide product validation, perform warehouse mapping studies, and give guidance on any temperature monitoring need you may have.

Display Data Loggers

Easy USB download, and complete control of your temperature or humidity data.

- 3 SM300 \$249** Temperature Logger. Range -4 to 158°F, -20 to 70°C. Accuracy $\pm 0.8^{\circ}\text{F}$, $\pm 0.44^{\circ}\text{C}$.
- SM320* \$299** Temperature Logger. Remote Probe. Range with Probe -300 to 2000°F, -184 to 1093°C. Accuracy $\pm 1.8^{\circ}\text{F}$, $\pm 1.0^{\circ}\text{C}$.
- SM325* \$399** Temperature Logger. Two Remote Probes. Range with Probe -300 to 2000°F, -184 to 1093°C. Accuracy $\pm 1.8^{\circ}\text{F}$, $\pm 1.0^{\circ}\text{C}$.
- SM420 \$499** Temperature Logger. Remote Probe. Range with Probe -50 to 350°F, -45 to 176°C. Accuracy $\pm 0.5^{\circ}\text{F}$, $\pm 0.28^{\circ}\text{C}$.
- TM320 \$299** Temperature and Humidity Logger. Range -4 to 158°F, -20 to 70°C. Accuracy $\pm 0.8^{\circ}\text{F}$.
- TM325 \$399** Temperature and Humidity Logger. Remote Probe. Range -40 to 185°F, -40 to 85°C. Accuracy $\pm 0.8^{\circ}\text{F}$.
- 4 SP425 \$159** Temperature Logger. Digital Display. Accuracy $\pm 1.2^{\circ}\text{F}$, $\pm 0.67^{\circ}\text{C}$. Range -4 to 158°F, -20 to 70°C.
- TP425 \$249** Temperature and Humidity Logger. Digital Display. Accuracy $\pm 0.8^{\circ}\text{F}$, $\pm 0.45^{\circ}\text{C}$. Range -4 to 158°F, -20 to 70°C.



Connect With Us

Dickson Social Media Accounts



@DicksonData



Channel:
DicksonData



Search
"Dickson"



Search
"Dickson Data Loggers"

Temperature and Temperature/Humidity Chart Recorders

Want a physical readout right where you are monitoring? Our Chart Recorders have you covered. For ninety years we've built the best chart recorders in the business. Check out our models below.



8 and 6 Inch Models

Eight and Six Inch Chart Recorders display detailed temperature and humidity values.

MODELS AND FEATURES

KT6	6 Inch Temperature	Starting at \$369
KT8	8 Inch Temperature	Starting at \$419
TH6	6 Inch Temperature and Humidity	Starting at \$489
TH8P	8 Inch Temperature and Humidity	Starting at \$489



4 and 3 Inch Models

Four and Three Inch Temperature Chart Recorders designed to fit any application.

MODELS AND FEATURES

SL4350	4 Inch	\$239
SL4100	4 Inch	\$239
SC3 Series	3 Inch	\$239

Charts sold separately. For charts and accessories, call **630.543.3747** or go to www.DicksonData.com.

PRESSURE DATA LOGGERS



Pressure Data Logger One second sampling rate. User replaceable battery. Optional delayed start. USB connectivity. Pressure sensor includes built-in diaphragm seal.

PR125	\$499	0-100 PSI
PR325	\$499	0-300 PSI
PR525	\$599	0-500 PSI



Rugged Utility Pressure Data Logger Water resistant case. 3 year battery. Unobtrusive design. Fits easily in a toolbox. USB Connection.

PR150	\$499	0-100 PSI
PR350	\$499	0-300 PSI

PRESSURE CHART RECORDERS



4 and 8 Inch Models

Four and Eight Inch Chart Recorders to meet your needs.
Single AA battery powered. Rugged low-maintenance design features.
7-day or 24-hour recording times. 1/4 inch NPT Connector.

MODELS AND FEATURES

0-100 PSI	PW860/1 \$629	PW470 \$449
0-200 PSI	PW864/5 \$629	PW474 \$449
0-300 PSI	PW866/7 \$629	PW476 \$449
0-500 PSI		PW479 \$449
0-1000 PSI	PW875 \$749	

Charts sold separately. For charts and accessories, call 630.543.3747 or go to www.DicksonData.com.



BACK TO SCHOOL.

Reviewing Recent Vaccine Storage Regulations And Guidelines.

School is back in session and for students this means heading to the doctor to update their vaccines. For providers, however, it's a whole different story.

This time of year can mean an increase in inventory, patients, audits, and ultimately risk!



Minimizing your risk is a big priority for any vaccine provider and there are a number of tools you can utilize in order to meet the compliance and safety requirements for storing vaccines. More importantly, maintaining patient safety is another goal of any healthcare provider and vaccine storage and handling guides are aimed at ensuring this.

One of the best resources available to accomplish both these goals is the Vaccine Storage and Handling Toolkit published by the CDC. You can find the toolkit here: www.cdc.gov/vaccines/recs/storage/toolkit/storage-handling-toolkit.pdf. Some of the key points in the toolkit are explained in greater detail throughout this article, but nothing beats reading and understanding the CDC's Toolkit. It should be noted that participants in the Vaccine for Children (VFC) program should inquire with their immunization programs for additional details and requirements.

While regulations may vary state to state or even county to county, the Toolkit is a great resource that outlines, in great detail, the best practices for vaccine transportation and storage, one of the best things a provider can do is talk to their auditor. Ultimately, it is the auditor who interprets the guidelines and makes decisions on whether or not a provider is complying or not. Taking the time to proactively reach out and discuss concerns with your auditor can go a long way towards preventing compliance issues.

Potentially more important than talking with your auditor is implementing and following best practices. Additionally, educating anyone who touches any part of the vaccine process according to those best practices is key to ensuring everyone knows not only their part in the process, but also how to perform their duties correctly. It is not enough to trust the fact that an employee may have been trained elsewhere as equipment, technology, policies and even regulations/guidelines change from organization to organization or state to state.

The Vaccine Cold Chain

When people refer to a "cold chain" they are generally referring to a temperature controlled supply chain. This is often said to include the manufacturing, storage, transportation, and distribution of any product needing to be stored at or within a certain temperature range in order to maintain freshness or efficacy.

For vaccines, the cold chain refers to the same thing, but more specifically how the product goes from the manufacturer, gets transported to the provider, stored at the provider's site, and ultimately distributed to consumers or patients. Understanding best practices throughout (and beyond) the cold chain is more critical than understanding what it is.

Why is the Cold Chain Important?

Temperature fluctuations can cause a vaccine to become ineffective ultimately putting patients at risk. It is important to take action immediately when a vaccine is exposed to improper conditions as the potency is reduced during every excursion.

Additionally, there's a financial aspect for the providers. Many vaccines that are provided by programs like VFC give the vaccines to providers at no cost, but hold them liable for any lost product. Following best practices reduces the risks to both patient safety and a clinic's ability to provide effective services.

General Storage Plans

Developing a plan and sticking to it is of the utmost importance. Updating that plan yearly to account for new regulations and new technologies or any other change is also critical.

Once the plan is developed or updated it is important to get it in front of staff (including custodial and security) and addressing any questions or concerns regarding the plans. Keeping the plans readily available and near any storage locations can also help in the event a question arises.

Knowing what to do in an emergency is key. If the power goes out or a piece of equipment like a refrigerator dies it is important to know what the plan is during this critical period. Having designated primary and secondary contacts lets everyone know who needs to be notified in the event of an emergency.

If there are any questions regarding the vaccine's efficacy, contacting the manufacturer with specific questions and data is vital to knowing how to proceed.

Vaccine Storage Equipment

Utilizing the proper equipment to store your vaccines is very important. The CDC generally recommends stand-alone pharmacy grade/

purpose-built refrigeration/freezer units. Some VFC programs specifically ban dormitory-style refrigerators as they are notoriously unstable. Vaccines should be stored in a refrigerator averaging 40F (5C) and freezers between -58F and +5F (-50C and -15C). Placement of the vaccines within the equipment is also key. When stocking the refrigerator or freezer it's important to allow for good airflow by not blocking any vents or fans and leaving space between the walls and any product. Utilizing water bottles or jugs as stabilizers will help maintain temperature in the event of a power outage or equipment failure.

Temperature Monitoring Equipment

When selecting a product to continuously monitor the temperature inside your refrigerator or freezer, there are a number of important factors to consider.

The CDC now recommends the use of digital data loggers for continuous monitoring and chart recorders no longer meet this requirement. Selecting a device with a detachable probe will also be convenient for installation and calibration. This probe should include a bottle with a buffering solution like glass beads in order to mimic the conditions of the actual vaccines.

Selecting a device that has been calibrated and includes a certificate of calibration and furthermore re-calibrating every 1-2 years is important for understanding your readings are accurate. You want a device with an accuracy of +/-1F (+/- .5C) or better.

Education

Regular training and education of these best practices for all staff is one of the most important factors in the cold chain. You can have all the proper equipment and procedures in place, but if your staff doesn't understand how to use the tools, then the cold chain breaks and can result in financial and patient safety issues.

This was only a short summary of the vast amount of information contained in the Toolkit and it is best to read and understand the entire toolkit in order to best protect yourself, your clinic, and your patients from any potential issues. For more information you can check out the CDC's page on vaccines (www.cdc.gov/vaccines), contact your local provider, or view the Dickson Blog: blog.dicksodnata.com for further reading.

DICKSON

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Company

DicksonOne Touchscreen

When we began designing our new line of Touchscreen data loggers, we started with some simple, yet lofty goals: create a device that was feature heavy, easy to use, and allowed users to access their data history . . . anywhere.

So we combined a new Touchscreen interface with the power of DicksonOne to deliver our most robust data logger yet:
The DicksonOne Touchscreen.

The DicksonOne Touchscreen is beautifully designed, with a new capacitive LCD touchscreen, a redesigned user interface, and new interchangeable Replaceable Sensors.

Plus, with WiFi, Ethernet, and USB connectivity, our new line of Touchscreens connects you directly to the DicksonOne Cloud, which allows you to interact and manage your temperature data according to 21CFR11 guidelines.

To build your DicksonOne Touchscreen, visit:
dicksondata.com/products/dicksonone-touch.



Scan This QR Code To Shop DicksonData.com

Quick Response (QR) codes are a type of barcode that can be read by cell phones and other readers. Simply download a QR Reader application on your cell phone, scan the code, and view additional content like product videos!