Revolutionize Your Nutrition Practice with Mobile Applications

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Objectives

- Review industry trends in both the mobile application and medical mobile application market
- Discuss use of mHealth in health care
- Learn about regulations of medical mobile apps
- Review literature of incorporating mobile applications into practice
- Review top professional and consumer apps for the renal community

Definitions

- Mobile Platform: commercial off-the-shelf (COTS) computing platforms, with or without wireless connectivity, that are handheld in nature.
- Mobile Application: software application that can be executed (run) on a mobile platform, or a web-based software application that is tailored to a mobile platform but is executed on a server.
- Mobile Medical Application (Mobile Medical App): a mobile app that meets the definition of device in section 201(h) of the Federal Food, Drug, and Cosmetic Act (FD&C Act); and either is intended:
  - to be used as an accessory to a regulated medical device; or
  - to transform a mobile platform into a regulated medical device.

Trends and Health Care Implementation

Do you own and use a smartphone?
- A: Yes
- B: No

Industry Trends

- Mobile applications (apps) can help people manage their own health and wellness, promote healthy living, and gain access to useful information when and where they need it.
- Industry estimates that 500 million smartphone users worldwide will be using a health care application by 2015, and by 2018, 50% of the more than 3.4 billion smartphone and tablet users will have downloaded mobile health applications.
- Users of health care apps include health care professionals, consumers, and patients.
How many apps do you have on your smart phone?

- A: 50
- B: 51-100
- C: 101-200
- D: >200

Medical Apps Trends

- Projections that within 5 years medical apps will go from being a novelty to mainstream with growth of 25% annually
- Roughly 43,700 health and medical apps available in Apple’s iTunes App Store
  - 83% targeted to patients and consumers
  - 17% targeted to clinicians
  - Most of the consumer apps are simple in design and provide basic information; 10% similar apps track or capture user-entered data, and fewer than 50 relate to condition or management or provide tools and calculators for users to measure vital
- Modern health care survey on “Most Important Mobile Medical Apps” lists 83 clinician preferred apps
  - Epocrates was top choice, followed by Medscape, Micromedex, and WebMD

Technology in Health Care

1. “Crunching data to offer a better diagnosis and treatment”
   - IBM developing supercomputer to aid physicians make better diagnoses and recommend treatments
2. “Helping doctors communicate with patients”
   - Stannah Telehealth is translating apps now for doctors and medical professionals
3. “Linking doctors with other doctors”
   - Diversity in a social network helps physicians to collaborate on difficult cases
4. “Connecting doctors with patients”
   - Medical consultations and call via the phone
5. “Helping patients stay healthy”
   - Mobile apps and gadgets to help people stay active, sleep well, and eat healthy

Patient Engagement

- Apps may increase patient engagement. Decreases or lack of engagement contributes to higher health care costs.
- A study conducted in the VA system found that patients who were less engaged or had lower levels of patient activation (skills and confidence involved in equipping patients to become actively engaged in their own health care) had average costs 8% higher at baseline and 21% higher mid-year than patients with higher patient activation.

Increase in Patient Access

- February of 2013, the Office of the National Coordinator of Health IT released their three-pronged patient engagement strategy. Their goals are to:
  - Increase patients’ access to their own health information
  - Enable patients to take action with that information
  - Shift attitudes to allow patients and practitioners to work together
- Second stage of this plan will require providers to use secure e-mail with patients, and provide patients with methods of viewing, downloading, and transmitting personal health information to third parties.

Health Care App Integration

- The VA system has more than three dozen customized mobile apps released or under development and pilot projects ongoing
  - Creating staff-oriented and patient-oriented apps
  - Most apps are currently or will be linked to their EHR
  - In May 2013, the VA provided iPads to 1,100 caregivers. The devices had 10 apps created to give secure access to track and share personal health information (PHI) with the VA care teams.
  - Optimism for the potential of how apps can improve communication and disease management, but there is a lot to still learn about the psychology of mobile app effectiveness.
Apps in Nutrition Practice
- "Apps can offer health care professionals another way of engaging their patients, expand the reach of their practice, expand the reach of their practice, and potentially lower health care costs.”
- Catherine Frederico states that apps should be thought of as tools, like a tape measure or scale. Patients and clients need assistance with not only on how to use the apps but to decide which apps to use.
- "Failure to embrace this need as a professional opportunity simply leaves it open to underqualified individuals and nonprofessionals.”

Increase in Patient Access
- "A novel way to engage patients in their nutrition care is to prescribe pertinent nutrition games on the web or with smartphone apps. A survey clinicians will ask clients about the points, badges, and rewards earned by playing these games to gauge patient knowledge and disease management (Frederico)."

Do you use apps in your practice?
- A: Yes
- B: No

Dietitian mHealth use in Canada
- Purpose: Survey of dietitians to explore topics related to mobile devices and their apps in Canadian dietetic practice.
- Methods: A survey was drafted, posted on SurveyMonkey, and pretested with dietitians and dietetic interns, from January 2012 to April 2012.
- Results: 57.3% of respondents reported app use in practice, and 54.2% had a client ask about or use a nutrition/food app. About 40.5% of respondents had recommended nutrition/food apps to clients. Three themes emerged that can affect dietitians’ use of apps and whether they recommend apps to clients: mobile device and app factors (access to information/tools, content quality, usability, accessibility, compatibility, and cost); personal factors (knowledge, interest, suitability, and willingness/ability to pay); and workplace factors.
- Conclusions: Apps are now infiltrating dietetic practice. Several factors can affect dietitians’ use of apps and whether they recommend them to clients. These findings will help guide future development and use of apps in practice.

Pros and Cons
- Mobile medical apps can provide continuous, frequent contact with health care providers.
- Provides data and can instruct the user on what to do.
- Patient could get a text message or email alert, “You are at 50% of your goal” on cholesterol or weight loss
- Target messages to change behaviors
- Future possibility to prescribe a weight loss app which is part of a weight loss program, including a wireless scale, glucometer, and a call center for diet coaching and feedback
- Many mobile apps lack security and confidentiality. Lack encryption or have too much information stored.
- Sun Diego-based Privacy Rights Foundation assessed 43 consumer apps and rated 72% of them as high or medium privacy risks, “Don’t put anything in an app that you wouldn’t post on Facebook.”

Regulatory Considerations
Due to the number of apps, it is difficult for a single organization to do a meaningful review. Organizations would need to include in the reviews a high-risk (class III) app review. Guidelines could include categories on safety, accuracy, and security. App review organizations would need to include in the reviews a certification process to ensure that apps do not pose potential harm to their users or have significant security and privacy vulnerabilities. Conduct rigorous evaluations on the effectiveness of mHealth apps.

**FDA Regulation**
- Risk-based approach
- Moderate-risk (class II)
- High-risk (class III)
- Non-medical device apps that the FDA exercises enforcement discretion
- App developers should contact the FDA if there are questions about their mobile app, its level of risk, and whether a premarket application is required

**FDA Regulated Apps**
- Mobile apps that transform a mobile platform into a regulated medical device:
  - Source or lead is connected to a mobile platform to measure electrical signals produced by the heart
  - Source or electrode used to measure eye movement or hearing or brain function
  - Mobile apps that connect to an existing device type for purposes of controlling its operation, function, or energy source
  - Apps that can calibrate or change settings of a cochlear implant
  - Mobile apps that display, transfer, store, or convert patient-specific medical device data from a connected device:
    - Mobile apps at a nursing station and display medical data to a physician's mobile platform for review
    - Mobile apps that connect to peripheral monitoring systems and transfer patient-specific medical device data
  - Apps that cause smartphones or other mobile platforms to impact the functionality or performance of traditional medical devices

**FDA Discretionary Regulated Apps**
- Mobile apps that meet regulatory definition of a “device” but pose minimal risk to patients and consumers, the FDA will exercise enforcement discretion and will not expect manufacturers to submit premarket review of application or to register their app with the FDA
- Examples include:
  - Apps that help patients to self-manage their diseases or conditions without providing specific treatment suggestions
  - Provide patients with simple tools to organize and track their health information
  - Provide easy access to information related to health conditions or treatments
  - Help patients document, share or communicate potential medical conditions to health care providers
  - Automate simple tasks for health care providers or enable patients to interact with Personal Health Records (PHR) or Electronic Health Record (EHR)

**Call for Guidelines/Standards**
- Available app reviews based on personal impressions, rather than on evidence-based, unbiased assessments of clinical performance and data security
- Due to the number of apps, it is difficult for a single organization to do a meaningful review
- Start with developing guidelines and standardization to help developers build high-quality apps and to serve as a basis for app review
- Conduct rigorous evaluations on the effectiveness of mHealth apps

**U.S. Food and Drug Administration**
- The U.S. Food and Drug Administration (FDA) encourages the development of mobile applications (apps) that improve health care and provide consumers and health care professionals with valuable health information
- The FDA has a public responsibility to oversee the safety and effectiveness of medical devices including mobile medical apps
- Apps span a wide range of health functions and most apps are low risk, those that pose a greater risk to patients require FDA review
- Have cleared over 100 mobile medical apps
FDA Discretionary Mobile Apps

- Mobile apps that are intended to provide access to electronic "copies" of medical textbooks or other reference materials.
- Medical apps that can be used in the health care environment, in clinical care or patient management, but are not considered medical devices.
- Mobile apps that are intended for general patient education and facilitate patient access to commonly used reference information. These apps can be patient-specific, but are intended for increased patient awareness, education, and empowerment, and support patient-centered health care.
- Medical apps that provide educational information, reminders, or motivational guides.
- Mobile apps that use GPS location information to alert notification to any physical conditions that cause adverse symptoms.
- Mobile apps that use video and video games to motivate patients to do their therapy exercises.
- Mobile apps that prompt a user to enter which herb and drug they would like to avoid.
- Mobile apps that provide daily motivational tips to reduce stress and promote a positive mental outlook.
- Mobile apps that can automate general office operations and are not intended for use in the diagnosis of disease or other conditions, or in the care, mitigation, treatment, or prevention of disease.

Non-Regulated Mobile Apps

- Mobile apps that provide educational information, reminders, or motivational guides.
- Mobile apps that use GPS location information to alert notification to any physical conditions that cause adverse symptoms.
- Mobile apps that use video and video games to motivate patients to do their therapy exercises.
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- Mobile apps that provide daily motivational tips to reduce stress and promote a positive mental outlook.
- Mobile apps that can automate general office operations and are not intended for use in the diagnosis of disease or other conditions, or in the care, mitigation, treatment, or prevention of disease.
What’s the Evidence?

Physical Activity and Weight Loss Pilot

- **PURPOSE:** Assess the relationship between diet (mobile app, website, or paper diary), and physical activity, and participants assigned to a behavioral weight loss intervention delivered by podcast.
- **METHODS:** Participants were randomized to one of three groups (111 participants): mobile app, website, or paper diary. The mobile app was a customized application that included personalized goal setting, self-monitoring, and feedback via weekly text messages. The website was also a customized application that included personalized goal setting, self-monitoring, and feedback via weekly text messages. The paper diary group used a standard paper diary for self-monitoring.
- **RESULTS:** Participants in the mobile app group reported higher levels of physical activity compared to the website and paper diary groups. The mobile app group also reported higher levels of satisfaction with the intervention than the other two groups.
- **DISCUSSION:** The results support further systematic investigation of the efficacy of the mobile app for promoting physical activity and weight loss.

Medication Reminder Study

- **PURPOSE:** Evaluated a mobile phone application (Nutricam) for recording dietary intake over a three-day period.
- **METHODS:** Participants were recruited to use the Nutricam application for recording dietary intake over a three-day period.
- **RESULTS:** The results showed that the Nutricam application was effective in improving dietary self-monitoring compared to traditional methods.
- **DISCUSSION:** The results support further systematic investigation of the efficacy of the Nutricam application for improving dietary self-monitoring.

Physical Activity Study

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Nutricam Study

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- **METHODS:** Participants were recruited to use the Nutricam application for recording dietary intake over a three-day period.
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- **DISCUSSION:** The results support further systematic investigation of the efficacy of the Nutricam application for improving dietary self-monitoring.

DM Web-Based Pilot

PURPOSE: Drawing on previous web-based diabetes management programs based on the Chronic Care Model, expanded an intervention to include care management through mobile phones and a game console web browser.

METHODS: The pilot intervention enrolled eight diabetes patients from the University of Washington in Seattle into a collaborative care program: connecting them to a care provider specializing in diabetes, providing an electronic medical record allowing wireless glucose uploads and e-mail with providers, and connecting them to the program's web services through a game system.

RESULTS: Participants expressed frustration with using the cell phones and the game system in their everyday lives, but liked the wireless system for collaborating with a provider on uploaded glucometer data and receiving automatic feedback on their blood sugar trends. A majority of participants also expressed that their participation in the trial increased their health awareness.

DISCUSSION: Mobile communication technologies showed promise within a web-based collaborative care program for type 2 diabetes. Future intervention design should focus on integrating easy-to-use applications within mobile technologies already familiar to patients and ensuring the system allows for sufficient collaboration with a care provider.


Limitations in Research

- More than 500 "mobile health" or mHealth studies to study the effectiveness of mHealth interventions
- Limited data about the best strategies for engagement, efficacy, or effectiveness
- Most of the studies have been unable to move past the pilot phase, focusing on if the mobile app works better in practice than not having a mobile app

Recommendations for mHealth

- Existing standards for research should be reconsidered in order to provide guidance on when scale up is appropriate.
- mHealth interventions should be guided by a plausible theory of behavior change and should use more than one technique depending on the targeted behavior.
- We need to establish an open mHealth architecture based on a robust platform with standards for app development which would facilitate scalable and sustainable health information systems.
- Implementation strategies such as factorial designs that are able to test the multiple features of interventions must be explored in order to provide the necessary evidence base.
- Scale-up of mHealth should be preceded by efficacy and effectiveness trials so that they are founded on an appropriate evidence base.
- Governments, funders, and industry must cooperate in order to set standards to create a self-governing commercially viable ecosystem for innovation.


Professional Apps

Professional Apps

- KDIGO recently released nephrology guidelines to iPad.
- Each guideline is structured individually in this digital format.
- Select the guideline and the user is brought to an e-document, with the ability to zoom in, jump to pertinent sections (chapters and references), add personal notes and bookmark favorite sections.
- Price: free

KDIGO

Developed by: Visible Health, Inc.
Supported by a grant from Shire
ASN Kidney News

- ASN Kidney News is available for iPhone and Android.
- Newsmagazine examines research findings and policy changes, pinpointing emerging trends in industry, medicine, and training that impact practitioners in kidney health and disease.
- Price: Free

eKnowledge Diabetes

- eKnowledge Diabetes is available for iPhone.
- Offers presentations on type 2 diabetes mellitus pathophysiology, early diagnosis, goals of therapy and care, control recommendations, and treatment of hypertension and dyslipidemia, patient monitoring, and treatment guidelines. In addition, these activities will touch on recent controversies relating to measurement and application of HbA1c levels, inconsistencies between current T2DM guidelines, and intensive versus standard therapy.
- Each presentation offers free CME, CE, and CPE credit to diabetologists, endocrinologists, internists, primary care physicians, nurse practitioners, nurses, and pharmacists who participate in the care of patients with type 2 diabetes.
- Free

Screening for Albuminuria in Patients with Diabetes

- Compatible with iPhone, Android.
- A quick pocket tool to help medical professionals assess and treat albuminuria in people with diabetes and other high risk patients. Content is adapted from KDOQI evidence-based clinical practice guidelines and recommendations from the National Kidney Foundation.
- Simple, quick, and organized by:
  - What is Albuminuria?
  - Why screen for albuminuria in high risk patients?
  - How to screen
  - Follow-up using a simple, interactive decision-making algorithm
  - Facts about albuminuria, diabetes, and chronic kidney disease
- Price: Free

Developed by: Blue Toad, Inc.

Developed by: Projects in Knowledge, Inc.

Supported by: Boehringer Ingelheim Pharmaceuticals, Inc.
eGFR calculators

From the National Kidney Foundation (NKF), this application allows medical professionals to estimate kidney function using five separate eGFR calculators:

- CKD-EPI Creatinine Equation (Preferred method)
- MDRD Study Equation
- Cockcroft-Gault Formula
- CKD-EPI Cystatin and Creatinine 2012 Equation
- Revised Bedside Schwartz Formula (For ages 1-17)

Also includes information on:
- Glomerular filtration rate (GFR)
- Chronic kidney disease (CKD)
- Risks for CKD and kidney failure
- How to test, evaluate, and slow progression

Price: Free

Supported by: Boehringer Ingelheim and Mitsubishi Tanabe Pharma

National Kidney Foundation’s Care After Kidney Transplant

This app is a convenient way to learn how to stay healthy with a kidney transplant. It provides the answers to frequently asked questions about how and why it is important to follow all of the instructions and recommendations from the transplant team. Features a ‘Question & Answer’ format to help self-manage post kidney transplant, along with ongoing care and support from the transplant and other health care team members.

Price: Free

Price: Free

MANAGE CVD IN PATIENTS WITH REDUCED eGFR

Helps medical professionals reduce risks associated with major traditional and non-traditional risk factors for cardiovascular disease (CVD). Includes an interactive algorithm to quickly identify high-risk patients and apply evidence-based strategies to assess and treat. Content is adapted from KDQI evidence-based clinical practice guidelines and recommendations from the National Kidney Foundation.

Cost: Free

Supported by: Pfizer, Inc

iURO Kidney Pro

Developed by: iOS Universal

Compatible with iPhone and Android (lite version only with iPhone)

iURO Kidney contains narrated simulation videos to make it easy to understand and explain the different pathologies and therapies. It can be used by doctors and nurses to enhance communication with their patients. Medical students can use iURO apps to increase their knowledge and understanding of various urological topics.

iURO Kidney can also be used by patients directly, to familiarize themselves with the different aspects of their urological condition and the treatment options available.

Cost: $2.99

Supported by: Novartis

MANAGE CVD IN PATIENTS WITH REDUCED eGFR

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Supported by: Pfizer, Inc
Epocrates
Developer: Epocrates
• Compatible with iPhone, Android, and Windows
• Health care professionals worldwide use Epocrates routinely to:
  • Find providers
  • Review drug prescribing and safety information
  • Check for drug interactions
  • Perform calculations, such as BMI and GFR
  • Access medical news and research information
• Cost: Free

Medscape Mobile
Developer: WebMD
• Compatible with iPhone, Android, iPad, and Kindle Fire
• Medscape Mobile provides the most comprehensive set of tools to support clinicians with all of their professional needs, including decision-making support at the point-of-care, medical news and perspectives from thought leaders across medicine, engaging CME courses to support professional development, and much more.
• Cost: Free

Micromedex
Developer: Truven Health Analytics, Inc
• Compatible with iPhone
• The app is part of the suite of Micromedex Medication Management apps, which includes Micromedex Drug Interactions and Micromedex IV Compatibility. The trio is an inexpensive solution to your on-the-go medication management needs.
• Free Micromedex Drug Reference for Internet Subscribers contains concise information on 4500+ search terms, covering common needs such as:
  - Adult and pediatric dosage
  - Adverse effects (separated into “common” and “serious”)
  - Drug interactions
  - Administration
  - Black box warnings
  - Mechanism of action
  - Common trade names
  - Contraindications
  - Dose adjustments
• Cost: Free
Consumer/Patient Apps

**NKF Mobile**
- Supported by FoodCare
- Compatible with iPhone, Android
- Diabetes, hypertension or Chronic Kidney Disease
- With the NKF mobile app, you can create a personalized health profile:
  - Food finder
  - Recipes
  - Restaurant food items
  - Packaged foods in grocery store
- A special feature lets you connect to your Registered Dietitian and get the personalized support and recommendations you need to stay on course with your nutrition challenges.
- NKF app is loaded with educational tips, breaking health news, local health-related programs, and nationwide community health screenings and events.
- Cost: Free

**Kidney Diet Foods Checker**
- Developed by: Mark Patrick Media
- Compatible with iPhone and iPad
- Contains over 6,000 foods
- Twenty-three food categories
- Allows users to compare store products to find foods that meet their nutrition prescription
- Click on a food choice and able to view nutrient content
- Can star a food to make it your favorite
- Current price = $1.99

**PocketDietitian**
- Developed by: Dr. Eric Wechsler MD and Nilima Desai, RD
- Compatible with iPhone
- For patients with CKD, ESRD, DM, HTN, Gestational Diabetes, HTN, pre-HTN, High Cholesterol, Metabolic Syndrome, CHF
- Can add on recommendations for a weight loss diet and/or general healthy diet (when selecting general healthy diet will grey out other conditions)
- Diary style app, input nutrition prescription and compare intake to prescription. Can also get meal recommendations. Email option.
- Can search for a food product
- Log glucose levels
- Provides a portion size guide
- Price: free
KidneyDiet
Developed by: Pain Free Living, Inc.

- Compatible with iPhone and Android
- For CKD patients to help them “watch the 3Ps”
- Phosphorus, Potassium, and Protein
- Also tracks fluid and sodium
- Helps patients make better choices dining at home, in restaurants, and at the grocery store
- Search for foods to find nutrition information
- Track and log food items and email log
- Compare intake to nutrition prescription
- Manually add foods
- Price: $1.99

KidneyAppetite™
Developed by: Sanofi Renal

- Compatible with iPhone
- Daily Summary gives a quick view of daily intake for six key nutritional values that are important for patients with CKD on dialysis.
- KidneyAPPetite™ records the nutritional value for the food items you add to help you make healthy choices.
- You can email a report to yourself, then print it out for your use.
- Tap into resources, including:
  - Personal Nutrient Guidelines
  - My Account
  - About KidneyAPPetite™
  - Tutorial
  - Phosphate Additives
  - Be Nutrient Smart
- Cost: free

Pillboxie
Developed by: Jared Sinclair

- Compatible with iPhone and iPad
- Pillboxie lets you “visually” manage your meds.
  - Scheduling a reminder is as easy as dropping a pill into a pillbox.
- Designed and developed by a registered nurse.
- Schedule reminders just by dropping pills into a pillbox.
- See a list of what meds are “due today” and check them off as you go.
- Cost: $0.99
RxmindMe
Developer: Walgreens Co.
- Compatible with iPhone
- RxmindMe is a reminder app for medications, vitamins and supplements.
  - Enter all dosage information, set up reminders and keep track of when taken.
  - Ability to refill or transfer an existing prescription to Walgreens.
  - Export all your prescription data with ease and email prescription history.
  - Ability to search the entire FDA Drug Database for your medications.
  - All of your prescription information is secure and is only stored on your iPhone.
- Cost: Free

Pill Reminder
Developer: Drugs.com
- Compatible with iPhone and iPad
- Pill and refill reminder, but also a comprehensive personal medication record (PMR). Medication management.
  - Multiple user support. Assign medications for yourself, family members and those you are caring for. Pin lock for privacy & security.
  - Add custom notes to your pill reminders e.g. take with meal, photo of prescription, causes stomach problems, doctor or prescriber details.
  - Add custom notes to your pill reminders e.g. take with meal, photo of prescription, causes stomach problems, doctor or prescriber details.
- Cost: Free

Mango Health Medication Manager
Developer: Mango Health
- Compatible with iPhone
- Mango Health is a medication reminder app with an interactive community and rewards.
  - Take your medications on time, and earn points that unlock the chance to win real-world rewards.
  - Here’s how it works:
    - Input your medication and supplement schedule.
    - Check for dangerous drug interactions.
    - Earn points each day that you take your medications safely and on time.
    - Points unlock the chance to win Mango Gifts, like gift cards from your favorite stores, donations to leading charities, and more.
- Cost: Free
Other Apps of Interest to RDs/DTRs

- **Greenpie**: affordable, secure, cloud-based; connects client to dietitian in a 2-way "conversation," organizes and optimizes workflow. Features include: diet diary, automated tracking, health coaching, customizable meal plans, and tracking of key metrics
- **Calorie Counter**: Diets & Activities
- **iGlutenfree**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **Weight Watchers Mobile**: Designed as a way to identify food intolerances, Thryve coach is designed to keep dieters motivated and committed to their weight-loss goals. RD Rating: 4 stars
- **CeliacFeed**: Apps that are quick and easy reference tool to search for and look up lists of restaurants ratings and reviews based on how well a restaurant on how well it can accommodate to the needs of customers with specific food allergens. RD Rating: 2 stars
- **GluCoMo**: Allows user to easily track glucose readings, insulin intake, and blood pressure tracking. RD Rating: 5 stars
- **Blood Sugar Tracker**: Includes blood glucose tracking, nutrition tracking, carbohydrate intake, insulin dosage and activity tracking, medication tracking, progress charts. RD Rating: 5 stars
- **Thryve**: Designed to easily capture blood glucose readings and allows user to track glucose results, carb intake, medication, food and activity. RD Rating: 4 stars
- **IDNT App**: Available on iPhone, iPad, and Android™ devices
- **Hasselbeck. RD Rating: 4 stars
- **Supplements**: Lists restaurants ratings and reviews based on how well it can accommodate to the needs of customers with specific food allergens. RD Rating: 2 stars
- **FoodWiz**: Provides a gluten-free shopping list, lists of foods to avoid and how to identify food intolerances. RD Rating: 2 stars
- **Gluten Free Daily**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **Diabetes Buddy Lite**: Designed to easily capture blood glucose readings and allows user to track glucose results, carb intake, medication, food and activity. RD Rating: 4 stars
- **Lose it!**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **Find Me Gluten Free**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **Diabetes Companion**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **Carb Master Free**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **MyDietSteps**: Integrates current nutrition guidelines from the DRIs, new MyPlate food groups, and the 2010 Dietary Guidelines into one, user-friendly place. It provides 92 normal nutrition food patterns for 23 calorie levels for persons 2 years and over. Recommendations and a weekly worth of sample menus can be e-mailed to clients.

Gluten-Free Apps: Review on AND

- **Eating Out G-Free**: Allows users to create personal diet plans for those with celiac disease or gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **ALLERGYEATSMOBILE**: Allows user to create personal diet plans for those with celiac disease or gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **MyPlate Food Groups Calculator**: Creates a gluten-free diet for those with celiac disease or gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **Calorie Counter by MyNetDiary**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **Gluten Free Restaurant Cards from CeliacTravel.com**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **Lose it!**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **Eating Out G-Free**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **Daily Burn**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **FoodWiz**: Provides a gluten-free shopping list, lists of foods to avoid and how to identify food intolerances. RD Rating: 2 stars
- **Gluten Free Daily**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
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Websites of Interest

- **International Dietetics and Nutrition Terminology**: Features include: Definitions to all terms, dictionary, search or browse for terms, Definitions to all terms, dictionary, keep a list of favorites, free updates to new edition terminology, available on iPhone, iPad and Android™ devices
- **eaTipster**: Created by the Dietitians of Canada, eaTipster delivers daily portion size information, food photo upload, messaging client to/from dietitian, scheduling, nutrient analysis, food photo upload, diameter sizes (multiple portions), gets to the dietitian work of supporting behavior change! RD free-tool
- **MyPlate Food Groups Calculator**: Creates a gluten-free diet for those with celiac disease or gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **Calorie Counter**: Diets & Activities
- **iGlutenfree**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **Weight Watchers Mobile**: Designed as a way to identify food intolerances, Thryve coach is designed to keep dieters motivated and committed to their weight-loss goals. RD Rating: 4 stars
- **FoodWiz**: Provides a gluten-free shopping list, lists of foods to avoid and how to identify food intolerances. RD Rating: 2 stars
- **Gluten Free Daily**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **Diabetes Buddy Lite**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **MyDietSteps**: Integrates current nutrition guidelines from the DRIs, new MyPlate food groups, and the 2010 Dietary Guidelines into one, user-friendly place. It provides 92 normal nutrition food patterns for 23 calorie levels for persons 2 years and over. Recommendations and a weekly worth of sample menus can be e-mailed to clients.

Diabetes Apps: Review on AND

- **Banting & Strachan**: Designed to easily capture blood glucose readings and allows user to track glucose results, carb intake, medication, food and activity. RD Rating: 4 stars
- **Diabetes Apps**: Review on AND
- **Diabetes Buddy Lite**: Designed to easily capture blood glucose readings and allows user to track glucose results, carb intake, medication, food and activity. RD Rating: 4 stars
- **Diabetes Companion**: Designed to easily capture blood glucose readings and allows user to track glucose results, carb intake, medication, food and activity. RD Rating: 4 stars
- **Coach**: Designed to easily capture blood glucose readings and allows user to track glucose results, carb intake, medication, food and activity. RD Rating: 4 stars
- **Blood Sugar Tracker**: Includes blood glucose tracking, nutrition tracking, carbohydrate intake, insulin dosage and activity tracking, medication tracking, progress charts. RD Rating: 5 stars
- **BMI Calculator**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **Diabetes Buddy Lite**: Designed to easily capture blood glucose readings and allows user to track glucose results, carb intake, medication, food and activity. RD Rating: 4 stars
- **MyDietSteps**: Integrates current nutrition guidelines from the DRIs, new MyPlate food groups, and the 2010 Dietary Guidelines into one, user-friendly place. It provides 92 normal nutrition food patterns for 23 calorie levels for persons 2 years and over. Recommendations and a weekly worth of sample menus can be e-mailed to clients.

Weight Loss Apps: Review on AND

- **Daily Burn**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **FoodWiz**: Provides a gluten-free shopping list, lists of foods to avoid and how to identify food intolerances. RD Rating: 2 stars
- **Gluten Free Daily**: Helps people with gluten intolerance to safely and easily dine out, even in another language. RD Rating: 2 stars
- **Diabetes Buddy Lite**: Designed to easily capture blood glucose readings and allows user to track glucose results, carb intake, medication, food and activity. RD Rating: 4 stars
- **MyDietSteps**: Integrates current nutrition guidelines from the DRIs, new MyPlate food groups, and the 2010 Dietary Guidelines into one, user-friendly place. It provides 92 normal nutrition food patterns for 23 calorie levels for persons 2 years and over. Recommendations and a weekly worth of sample menus can be e-mailed to clients.
Websites of Interest

- iMedical Apps website: http://www.imedicalapps.com/
- App Shopper website: http://appshopper.com/search?fbclid=IwAR3uZ5fQfX7Qo3Vx9ybq2AeDcYTA2d9QpWuQfK6vK3JcQZe4sTykV3X5y0

App Websites

- Micromedex Apps: http://micromedex.com/mobile-support/htmlapp
download
- KDIGO: http://kdigo.org/home/

Will you start or continue to use apps in your practice?

- A: Yes
- B: No

Thank You