JIFSAN
Strategic Plan 2015+

7 May 2012

JIFSAN

"Outstanding in its field!"

JIFSAN's Mission

- Founded in 1996 by the University of Maryland and US Food & Drug Administration, JIFSAN' mission is:
  - To advance sound strategies that improve public health, food safety, and applied nutrition using risk analysis principles through cooperative research, education, and outreach programs.

JIFSAN's VISION

To be internationally recognized as
a premier source of
scientific information and education programs
on food safety and applied nutrition
that enables the development of
sound public health policy and
reduces the incidences of food-related illness.

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Key Objectives

1. Increase the global knowledge of effective, available practices that promote food safety throughout the supply chain.

2. Enhance the development and promote the use of risk analysis models and tools for decision making processes associated with food safety and applied nutrition.

3. Promote collaborative research efforts related to risk analysis, food safety, and applied nutrition.

4. Broaden the research educational opportunities for undergraduate and graduate students.

JIFSAN Strategy

- Advance food safety & applied nutrition research that contributes to the development of science-based public health policies

- Foster the establishment of sustainable partnerships to develop and implement Food Safety training programs globally

- Expand global capacity building in risk analysis

- Develop and sustain educational resources to help train a skilled workforce in food safety and applied nutrition

Strategic Goal 1: Collaborative Research Program

Strategic Goal	Activity	Outcome
Collaborative Research Program: Advance food safety and applied nutrition research that contributes to the development of science-based public health policies	1. Collaborate with FDA	Unique research program to assist FDA achieve its mission, focused on 5 areas: - Risk analysis, - Produce safety, - Chemicals, - Nutrition/ dietary supplements - Consumer research
	2. Actively coordinate submission of proposals to other funding agencies	Increase research grants by “x”% to agencies, other than FDA
	3. Leverage FDA and other supported research by developing and conducting industry-relevant research	Industry-relevant research program defined and implemented, generating “y”% of funding

Strategic Goal 1: Research Areas

Research Area	Achievement Completed studies that may stimulate other research:	On-going Research
1. Risk Analysis Partnering with other (CFSAN / RACT and IRAC members) in developing tools	a) Observational study of food handling practices in retail deli departments. Stimulated additional research at CDC	a) Scoping study on noro viruses / searchable database. **(on-going)** b) Developing an online integrated food safety risk analysis resource for national and international information exchange. **(on-going)** c) INRA-MET@RISK: Collaboration with the French National Institute for Agricultural Research (INRA) to analyze the way that food Safety risk assessments treat various forms of uncertainty. **(on-going)** d) Scoping study on database of *Salmonella* in turkey (**planned**)
2. Produce Safety Microbial pathogens / ecology and detection	a) Development of Phyllosphere Metrics and GAPs to reduce the risks of Salmonellosis in Fresh-Market tomatoes and other vegetable crops. b) Evaluation of Public Health Impacts and Cost-Effectiveness of implementing GAPs in the Tomato Farm Environment. c) Development and validation of nano-sensors for detecting and sub-typing foodborne pathogens.	a) Novel molecular typing methods for analyzing Shiga toxin producing *E. coli* (STEC) and *Salmonella*. **(on-going)** b) Plant responses to colonization by *Escherichia coli* O157:H7 and *Salmonella* **(Submitted grant to USDA)**

Strategic Goal 1: Research Areas

Research Area	Achievement Completed studies that may stimulate other research:	On-going Research
3. Chemicals		a) Developing and validating Isotope Methods for distinguishing between naturally occurring and synthetic phthalates in food. **(on-going**
4. Nutrition / Dietary Supplements	a) Developing and validating *In Vitro* Hepatotoxicity Assay(s) for Dietary Supplemental Materials (**Completed; publications)**	a) Developing a Risk Assessment Framework for Folate Metabolism and the Identification of Applicable Risk Assessment Models **(on-going)**
5. Consumer Studies	a) Food Defense Research Initiative: Evaluation of the *ALERT (*Assure, Look, Employees, Reports, Threat) campaign "Be food safe".	a) Survey on consumer's emotional and cognitive reactions to food recalls **(waiting for OMB approval; on-going)** b) Experiment to Evaluate Risk Perceptions of Produce Growers, Food Retailers, and Consumers after a Food Recall Resulting from a Foodborne Illness Outbreak **(on-going)**

Strategic Goal 2: Sustainable Partnerships for Training

Strategic Goal	Activity	Outcome
Sustainable Partnerships for Training Foster the establishment of sustainable partnerships to develop and implement Food Safety training programs globally by:	1. Partnering with Government Agencies (e.g., FDA, USDA, etc.) in developing and conducting training	• Training program with FDA defined and implemented annually
	2. Partnering with International Community in providing training and establishing regional training centers	• Established 2 additional regional training centers within 5 years
	3. Partnering with Industry in expanding training portfolio	• Expanded training portfolio by “x”% with industry within 3 years • Funding from industry obtained

Strategic Goal 2: Sustainable Partnerships for Training

Food Safety Training

Objective	Initiative	Delivery
Program development: working closely with FDA	a) GAP (Good Agriculture Practices): established with input from academia, government and industry b) GAqP (Good Aquacultural Practices): established with support from industry c) CPF (Commercially Sterile packaged Foods): established with support from industry d) IFSTL (Int'l Food Safety Training Laboratory): established with support from industry - Draft business plan has been developed; Many opportunities for expansion e) FDA Inspectors training: under development f) BPCS (Better Process Control School) for the international community (under development)	
Implementation: Collaborating with FDA and USDA, foreign governments and industry	a) Providing international training – Opportunity for expansion	
Establish an international training network	Establish International Regional Centers: a) Bangladesh, b) Mexico, c) India, d) other countries?	
Develop effective, interactive training, online distance delivery format	Training on: a) Drug use in aquaculture module b) APEC training modules c) GAP Module d) IFSTL module	

Strategic Goal 3: Capacity Building in Risk Analysis

Strategic Goal	Activity	Outcome
Capacity building in risk analysis Expand Global Capacity Building in Risk Analysis	**1. Risk Analysis Curriculum** a) Continue and update Summer Integrated Program (SIP) b) Conduct Risk Analysis Training c) Develop Customized Program d) Explore other options for online distance learning program	• Comprehensive training program defined and maintained annually • Online distance learning program defined and implemented within 2 years
	2. Fellowship Program a) Continue (expand) Annual Tuition Fellowship SIP to recipients from Developing Countries started in 2010. (Uruguay – 2011 recipient; Brazil – 2010 recipient)	Minimum continue Annual Tuition Fellowship SIP to one recipient per year. (Ideally double within 2 years)
	3. Mentoring Program a) Continue annual mentoring program to one SIP participant started in 2011) (First participant from China was able to spend 2 additional months working with experts at JIFSAN and FDA/CFSAN to develop a research project on food safety risk analysis)	Minimum continue Annual Mentoring program to one SIP recipient per year. (Ideally double within 3 years)
	4. Leverage FoodRisk.org website a) Promote www.foodrisk.org as the international source for Food Safety Risk Analysis information - Expand content and improve FoodRisk.org - Provide online tools to professionals who conduct food safety risk analysis research	Content in FoodRisk.org expanded by 25% in 3 years One new online tool developed every 2 years.

Strategic Goal 4: Expand Food Safety Educational Opportunities

Strategic Goal	Activity	Outcome
Expand Food Safety Educational Opportunities Develop and expand educational opportunities that will lead to a skilled workforce in food safety and applied nutrition	**1. Expand and improve international training programs** a) Continue JIFSAN's international "train-the-trainers" food safety training programs aiming to provide trainees with an adaptable framework of effective practices necessary for the production of safe, wholesome food products b) Training other participants - These trainers will have the knowledge and skills to train farmers on effective food safety practices	• Trained "x" number of "train-the-trainers per year • Train "x" participants to train farmers on effective food safety practices
	2. Student Internship Program a) Unique undergraduate research program designed to provide UM students to collaborate with FDA scientists on specific research projects related to the CFSAN's mission	• Extended research opportunities for internships beyond laboratory experiences • Funding support available from individuals and/or industry to sustain / expand program
	3. Postdoctoral Fellows / Visiting Scholars a) Continue to provide research scientists with opportunities to work in FDA and UM laboratories to advance new knowledge that benefits FDA and various stakeholders. b) Continue to provide opportunities for visiting scholars	• Provided "x" number of postdoctoral fellows to work in FDA and UM laboratories • Target one visiting scholar per year

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JIFSAN Strategy

Vision

JIFSAN will be internationally recognized as a premier source of scientific information and education programs on food safety and applied nutrition that enables the development of sound public health policy, and reduces the incidences of food-related illness.

Key Objectives

- **Increase the global knowledge of effective, available practices that promote food safety throughout the supply chain.**
- **Enhance the development and promote the use of risk analysis models and tools for decision making processes associated with food safety and nutrition**
- **Promote collaborative research efforts related to risk analysis, food safety, and applied nutrition.**
- **Broaden the research educational opportunities for undergraduate and graduate students.**

Collaborative Research Program

Advance food safety & applied nutrition that contributes to the development of science-based public health policies

Sustainable Partnerships For Training

Foster the establishment of sustainable partnerships to develop and implement Food Safety training programs globally

Capacity Building in Risk Analysis

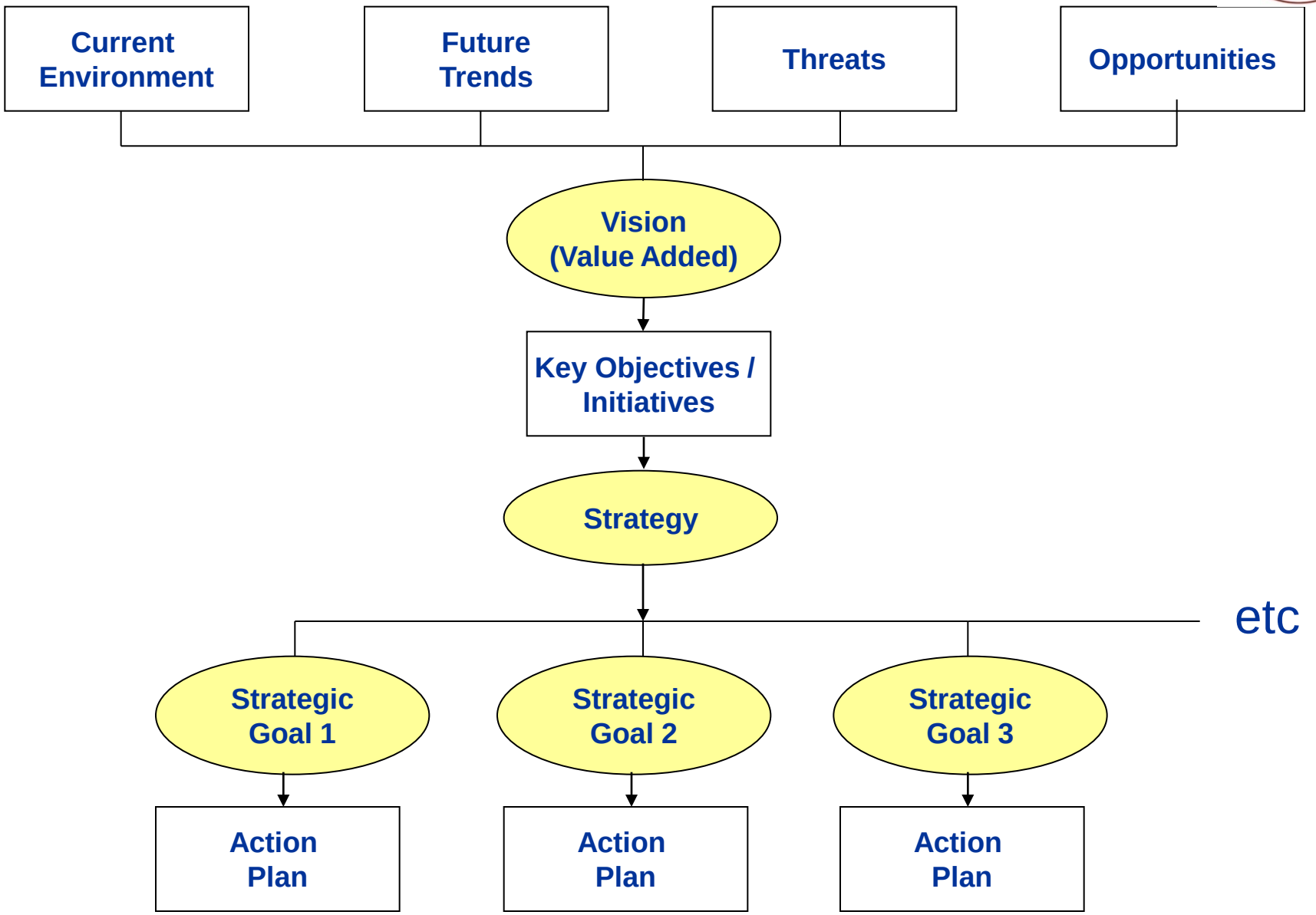
Expand global capacity in Risk Analysis

Expand Food Safety Educational Opportunities

Develop and sustain educational resources to help train a skilled workforce in food safety and applied nutrition

Back-Up Slides

Strategic Plan Process



Current Environment

External Factors

- Increasing globalization of food supply chain
- Fast pace innovation and dramatic changes in science and technology
- Regulation not keeping up with innovation
- Passage of Food Safety Modernization Act and food safety legislation in other countries
- US regulatory system is different to other countries that are more prescriptive
- 24 / 7 communication / social media
- WTO agreements and Codex Alimentarius standards
- Increase competition, fuel costs, resources can impact food safety
- Dwindling financial resources

Current Environment

Internal Factors

- Student Internship Program well established
- Partnerships:
  - Key partnerships developed: e.g., Produce Alliance, Center for Food Safety & Security Systems; UM College of Agriculture
  - Sustainable partnerships developed; e.g., Bangladesh; APEC-PTIN etc.
- Research Program
  - Strong research portfolio resulting in publications (http://jifsan.umd.edu/docs/Research_Portfolio_2010.pdf)
- Training:
  - Good Agriculture Practices, GAqP, CSPF, Risk Analysis, etc.
  - Most training is generally face to face – while this maybe costly and time consuming, it is still a critical modality that needs to be kept in the portfolio
  - Other effective, on-line distance training courses in risk analysis courses
  - State-of-the-art International Food Safety Training Laboratory (IFSTL) focused on fit-the-purpose analytical methods
- Website in place - www.foodrisk.org gets ~ 100k hits per month from 120 countries
  - Internationally recognized resource for food safety information
  - Received USDA grant to increase content and improve infrastructure
  - JIFSAN has a strong IT team including a group of IT / computer science students that do outstanding job in upgrading and expanding www.foodrisk.org
- JIFSAN's visibility
  - Visibility on campus, with government agencies and industry can be enhanced
  - Well recognized internationally for its Food Safety training program; RA Professional Development; www.foodrisk.org
  - Co-sponsor / participate in symposia at IAFP and SRA annual meetings

Future Trends

- **Increase need for:**
  - Food safety training domestically and internationally
  - Qualified talent on food safety and risk analysis
  - Risk-based decision-making
  - Risk communication
  - Research to support the development of science-based regulations
  - Understanding how to embed effective food safety assurance systems
- **Leverage resources**
  - Continuation of tight/reduced funding at base level
  - Increase collaborations
- **Timely response to issues**

Threats

- Uncertainty associated with funding stream
- Maintain intellectual resources
  - Recruitment and retention
- People without the appropriate skill set to develop and implement programs
- Radical shift in demographics

Opportunities

- Expand training workshops
  - International Import Capacity Building
  - Produce safety training
  - Other training workshops focused on implementation of FSMA
- Explore other means of delivering effective training that will supplement the face-to-face modality and may be more cost-effective; e.g., interactive training modules, etc.
- Leverage educational efforts
  - Identify sources of content already developed for inclusion; e.g., collaboration with industry associations; Produce Safety Alliance; other FDA funded Centers such as NCFST, etc.
  - Explore and identify other funding opportunities / mechanisms for continued support
- Broaden sustainable partnerships within the global food safety community:
  - BRIC and other countries
  - Country / regional centers
  - Industry involvement
  - Partners for IFSTL
  - Emerging Countries
- Expand Student Internship Program
  - Source of future talent for FDA
  - As selling proposition for industry recruiting efforts
  - Establish JIFSAN scholarships opportunities (via donations to University of Maryland) from industry or individual philanthropic donors.
- Increase visibility
  - Promote own JIFSAN's symposium
  - Continue to participate in impactful meetings / conferences
  - Develop communication plan