USABLE SECURITY
STUDYING INFORMATION PRACTICES

PROJECT

DATE **FALL 2009**

MENTOR **LAURIAN VEGA**

Background

What does personal information have to do with usable security?

NARISHA FINDS OUT SHE IS PREGNANT

TALKS TO HER GENERAL PRACTITIONER

Background

What does personal information have to do with usable security?

NARISHA FINDS OUT SHE IS PREGNANT

TALKS TO HER GENERAL PRACTITIONER

GOES TO SEE HER OBGYN

Background

What does personal information have to do with usable security?

NARISHA FINDS OUT SHE IS PREGNANT

TALKS TO HER GENERAL PRACTITIONER

GOES TO SEE HER OBGYN

OBGYN TALKS NEEDS REFERRAL

Background

What does personal information have to do with usable security?

NARISHA FINDS OUT SHE IS PREGNANT

TALKS TO HER GENERAL PRACTITIONER

GOES TO SEE HER OBGYN

OBGYN TALKS NEEDS REFERRAL

GIVES BIRTH IN A HOSPITAL

Background

What does personal information have to do with usable security?

NARISHA FINDS OUT SHE IS PREGNANT

TALKS TO HER GENERAL PRACTITIONER

GOES TO SEE HER OBGYN

OBGYN TALKS NEEDS REFERRAL

GIVES BIRTH IN A HOSPITAL

RETURNS TO SEEING GENERAL PARTITIONER

Background

What does personal information have to do with usable security?

1. INFORMATION NEEDS ARE INCREASINGLY **DISTRIBUTED** ACROSS PLACE AND SPACE

2. PEOPLE HAVE A **RESPONSIBILITY** FOR THEIR OWN PERSONAL INFORMATION

3. PERSONAL INFORMATION IS BECOMING INCREASINGLY **DIGITIZED**

Growing Trends
Highlights from the scenario

1. INFORMATION NEEDS ARE INCREASINGLY **DISTRIBUTED** ACROSS PLACE AND SPACE

2. PEOPLE HAVE A **RESPONSIBILITY** FOR THEIR OWN PERSONAL INFORMATION

3. PERSONAL INFORMATION IS BECOMING INCREASINGLY **DIGITIZED**

THERE IS A NEED

USABLE

+

SECURE

SYSTEM

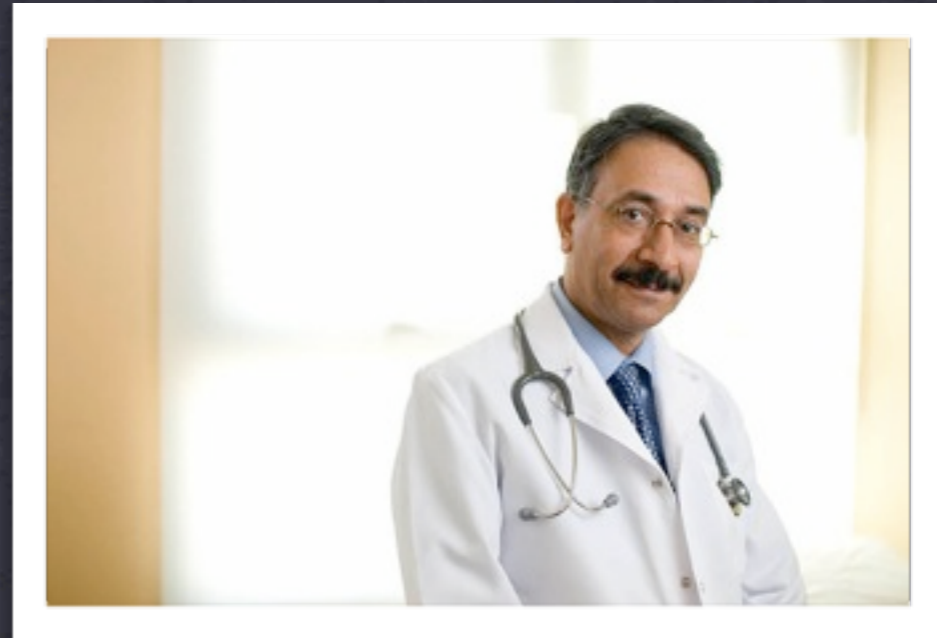# Growing Trends

Highlights from the scenario

Trust

=

Access to or the Sharing of Personal Information
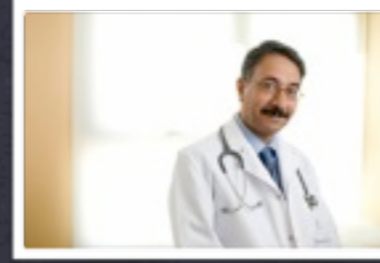
CHILDCARES

MEDICAL PRACTICES

Pilot Projects

Studying Information Management in Practice

CHILDCARES

MEDICAL PRACTICES

- PARENTS PROVIDE INFORMATION ABOUT THEIR CHILD
- CHILDCARE PROVIDERS DOCUMENT INFORMATION ABOUT CHILD & PARENTS
- NUMEROUS PEOPLE HAVE ACCESS

- PATIENTS OR PATIENT'S GUARDIAN PROVIDES INFORMATION ABOUT THEIR HEALTH
- MEDICAL PROFESSIONALS DOCUMENT INFORMATION ABOUT PATIENT
- NUMEROUS PEOPLE HAVE ACCESS

Information Space

Studying Information Management in Practice

- 20-45 MINUTE INTERVIEWS
  - 1-2 INTERVIEWERS + PARTICIPANT
- NO INCENTIVE FOR PARTICIPATING
- AUDIO RECORDED & TRANSCRIBED
- ANALYZED USING GROUNDED THEORY

- 13 PEOPLE FROM MEDICAL PRACTICES + 12 DIRECTORS FROM CHILDCARES
- NRV AREA
- SUMMER 2009

Method & Demographics

Understanding the practice

"WHAT IS THE KIND OF INFORMATION YOU INTERACT WITH ON A DAILY? MONTHLY? WEEKLY? BASIS?"

"DO YOU HAVE A POLICY ABOUT WHO CAN ACCESS INFORMATION? HOW IS ACCESS TO CHILD/PATIENT INFORMATION REGULATED?"

"METHODS OF COMMUNICATION? INFORMATION PROVIDED? INFORMATION KEPT ON DIFFERENT PARTIES"

Interview Form: Field Study of In-use Information Security and Interfaces within Childcare

Person	Different ways to communicate		Information they provide		Information they can access		Information kept on them	
	ex: email, phone, portal		ex: forms					
	Often	Method	Often	Method	Often	Method	Often	Method
Parent								
Child								
Owner								
Auditor								
Doctor								
Care Provider								
Administrator								

Interview Questions

Understanding the practice

1. THERE WAS AN HIERARCHY OF CONTROL OVER INFORMATION ACCESS

2. CHILDCARE CENTERS USED (TOO) MANY METHODS TO TRY AND COMMUNICATE WITH PARENTS

3. POLICIES ON INFORMATION DOCUMENTATION WERE INFLUENCED BY PARENTS, LAWS, AND OWNERS

4. INFORMATION WAS KEPT IN TWO FORMS: DIGITAL + ELECTRONIC

5. THERE WAS HUMAN MEDIATED ACCESS TO INFORMATION

6. FORMS OF SECURITY: DOOR, LOCATION, AND CONSENT FORMS

7. OWNERSHIP OF THE INFORMATION

8. MAKING INFORMATION TANGIBLE

Findings

Childcare study

Pilot Projects

1. THERE WAS AN HIERARCHY OF CONTROL OVER INFORMATION ACCESS

2. CHILDCARE CENTERS USED (TOO) MANY METHODS TO TRY AND COMMUNICATE WITH PARENTS

3. POLICIES ON INFORMATION DOCUMENTATION WERE INFLUENCED BY PARENTS, LAWS, AND OWNERS

4. **INFORMATION WAS KEPT IN TWO FORMS: DIGITAL + ELECTRONIC**

5. THERE WAS HUMAN MEDIATED ACCESS TO INFORMATION

6. FORMS OF SECURITY: DOOR, LOCATION, AND CONSENT FORMS

7. OWNERSHIP OF THE INFORMATION
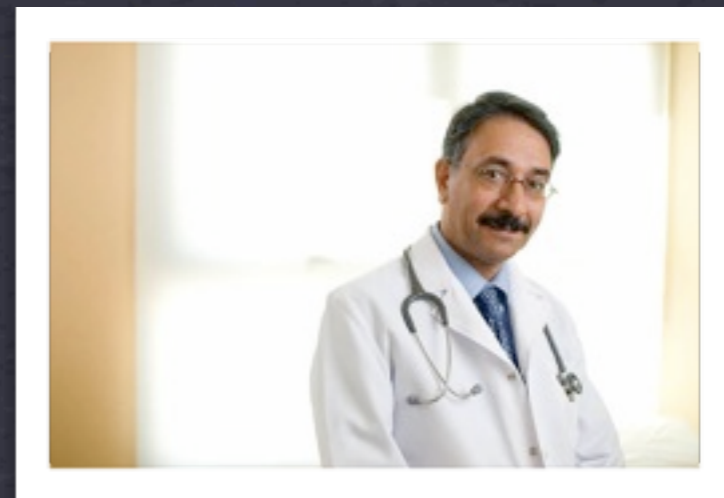
8. MAKING INFORMATION TANGIBLE

Findings

Childcare study

Pilot Projects

1. **THERE WAS AN HIERARCHY OF CONTROL OVER INFORMATION ACCESS**
2. **CHILDCARE CENTERS USED (TOO) MANY METHODS TO TRY AND COMMUNICATE WITH PARENTS**
3. **POLICIES ON INFORMATION DOCUMENTATION WERE INFLUENCED BY PARENTS, LAWS, AND OWNERS**
4. **INFORMATION WAS KEPT IN TWO FORMS: DIGITAL + ELECTRONIC**
5. **THERE WAS HUMAN MEDIATED ACCESS TO INFORMATION**
6. **FORMS OF SECURITY: DOOR, LOCATION, AND CONSENT FORMS**
7. **OWNERSHIP OF THE INFORMATION**
8. **MAKING INFORMATION TANGIBLE**

Findings

Childcare study

Pilot Projects

1. VARIOUS DEGREES OF COMPLIANCE WITH HIPPA

2. FILES ARE USUALLY KEPT A VERY LONG TIME (READ: FOREVER)

3. INFORMATION IS BEING STORED IN TWO DIFFERENT FORMS

4. NO GATE KEEPERS AND VERY LITTLE USE OF AUDIT TRAILS

5. THERE IS A LARGE TECHNOLOGY GAP

6. ACCESS WAS MUCH MORE OPEN, BUT THERE WERE DEEPER SHADES OF INFORMATION SHARING

7. THERE WERE DEGREES OF **RECORDING PATIENT INFORMATION**
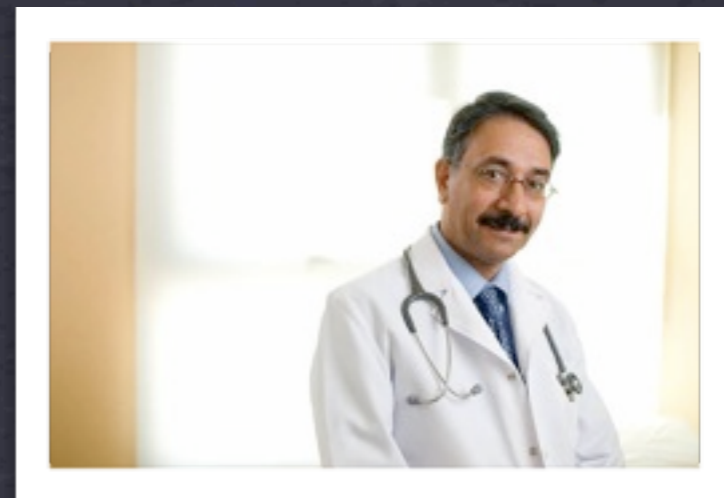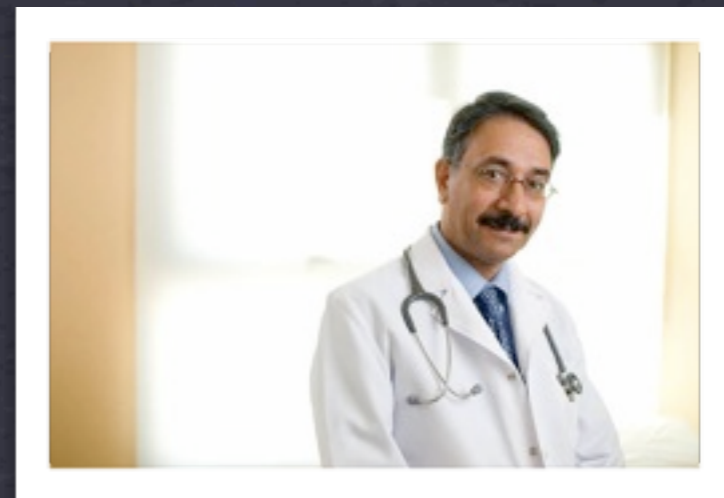
Findings
Medical Practices Study

1. VARIOUS DEGREES OF COMPLIANCE WITH HIPPA
2. FILES ARE USUALLY KEPT A VERY LONG TIME (READ: FOREVER)
3. INFORMATION IS BEING STORED IN TWO DIFFERENT FORMS
4. NO GATE KEEPERS AND VERY LITTLE USE OF AUDIT TRAILS
5. THERE IS A LARGE TECHNOLOGY GAP
6. ACCESS WAS MUCH MORE OPEN, BUT THERE WERE DEEPER SHADES OF INFORMATION SHARING
7. THERE WERE DEGREES OF RECORDING PATIENT INFORMATION

Findings
Medical Practices Study

Pilot Projects

1. VARIOUS DEGREES OF COMPLIANCE WITH HIPPA
2. FILES ARE USUALLY KEPT A VERY LONG TIME (READ: FOREVER)
3. INFORMATION IS BEING STORED IN TWO DIFFERENT FORMS
4. NO GATE KEEPERS AND VERY LITTLE USE OF AUDIT TRAILS
5. THERE IS A LARGE TECHNOLOGY GAP
6. ACCESS WAS MUCH MORE OPEN, BUT THERE WERE DEEPER SHADES OF INFORMATION SHARING
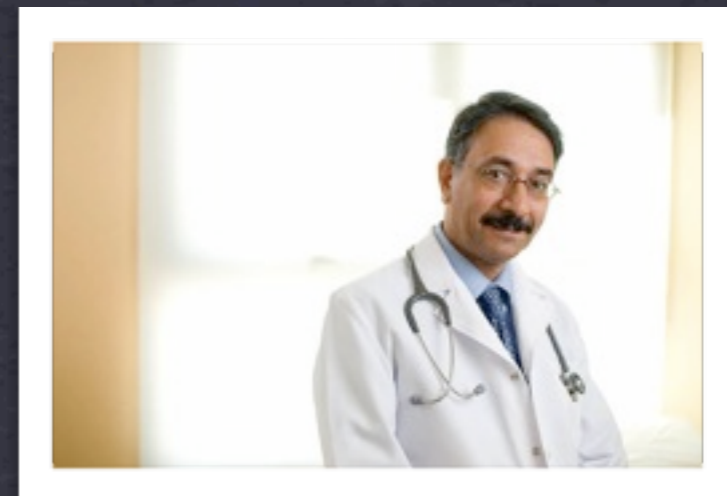7. THERE WERE DEGREES OF RECORDING PATIENT INFORMATION

Findings
Medical Practices Study

1. VARIOUS DEGREES OF COMPLIANCE WITH HIPPA
2. FILES ARE USUALLY KEPT A VERY LONG TIME (READ: FOREVER)
3. INFORMATION IS BEING STORED IN TWO DIFFERENT FORMS
4. NO GATE KEEPERS AND VERY LITTLE USE OF AUDIT TRAILS
5. THERE IS A LARGE TECHNOLOGY GAP
6. ACCESS WAS MUCH MORE OPEN, BUT THERE WERE DEEPER SHADES OF INFORMATION SHARING
7. THERE WERE DEGREES OF RECORDING PATIENT INFORMATION

Pilot Projects

Findings
Medical Practices Study

WE HAVE THE '**OFFICIAL STORY**' + IDEAS OF HOW
INFORMATION IS MANAGED AND ACCESSED
WE HAVE IDEAS ABOUT HOW TO DIGITIZE INFORMATION
MANAGEMENT TO **ENABLE TRUST**

WE DON'T HAVE AN '**WELL ROUNDED**' PICTURE OF CURRENT
PRACTICES
WE DON'T HAVE A GOOD IDEA OF THE **FEARS** SURROUNDING
A MOVE TO DIGITAL INFORMATION MANAGEMENT

Findings

What we have and what we have left

Pilot Projects

1. INTERVIEWING PARENTS ON THEIR INFORMATION PRACTICES WITH CHILDCARES

2. SHADOWING A CHILDCARE DIRECTOR TO FURTHER UNDERSTANDINGS OF CHILDCARE INFORMATION PRACTICES

Exploring personal record keeping in practice

3 possible projects

1. INTERVIEWING PARENTS ON THEIR INFORMATION PRACTICES WITH CHILDCARES

2. SHADOWING A CHILDCARE DIRECTOR TO FURTHER UNDERSTANDINGS OF CHILDCARE INFORMATION PRACTICES

3. DESIGN YOUR OWN

Exploring personal record keeping in practice

3 possible projects

Laurian@vt.edu
or
Talk to me after class!