

Best Practices in DNA Mixture Interpretation

- Two equally important parts to this process must be addressed
 - 1) Establish best practices within your own DNA laboratory
 - 2) Establish best practices within the DNA community



Change Management

- Change is a process and must be managed to succeed
- "Leading Change" by John P. Kotter
 - Eight stages of change
 - Each stage is essential
 - Mistakes at any stage can result in failure
 - Takes years



Change Management

- Universal Concept
 - Primarily focused on change within a single agency, company, or team
 - The same principles of change management are also applicable to a community
 - We will review change management in regards to the evolution of DNA mixture interpretation



Change Management

- Other community wide changes in forensic science could benefit from such an approach
 - Implementation of Rapid DNA methods
 - Implementation of improved analysis methods in the Pattern Evidence disciplines
 - Implementation of mandatory certification of all forensic scientists



Stage 1 Establish a Sense of Urgency

- Step 1 Bring the outside in
 - Embrace the statistics community
 - Embrace the international community
 - Embrace the naysayer's
- Step 2 Behave with urgency every day
 - Recognize your own issues
 - Be proactive and respond to guidelines
 - Don't wait for a crisis



Stage 1 Establish a Sense of Urgency

- Step 3 Find opportunities in crisis
 - Where we find ourselves right now
 - Need to evaluate and respond strategically
 - This workshop can be the starting point
- Step 4 Deal with no-no's
 - Some don't want to deal with it (stubborn)
 - Some don't know better (embarrassed)
 - Some don't want past exposed (fearful)

Stage 2

Form a Powerful Guiding Coalition

- Who is in charge?
 - -SWGDAM
 - ASCLD
 - -AAFS
 - -IWG's
 - Vendors
- National Commission on Forensic Science
 - Others must acknowledge NCFS as authority

Stage 3 Create a Vision

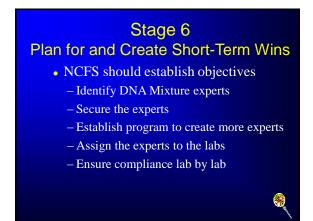
- There needs to be a singular vision from a singular authority
- The vision must account for the entire community
 - Ensure fundamental understanding by all DNA examiners
 - Ensure compliance with existing guidelines by all DNA laboratories
 - Ensure appropriate transition to DNA mixture tools





Stage 5 Empower Others to Act on the Vision • Must address different needs of different players - New staff being taught for the first time - Experienced staff being taught new info • Provide universal resources - Education and instruction - Validation and SOP guidance

- Expert review and follow-up



Stage 7 Consolidate Improvements and Produce More Change

- Reach for the tipping point
 - Keep track of each lab's success
 - Promote each lab's success
 - Soon the majority of labs will be in compliance and will be seen as the norm
 - The remaining labs will quickly follow until all labs are in compliance with DNA mixture interpretation best practices

Stage 8 Institutionalize New Approaches

- Ensure that the change is permanent
 - Future training of new scientists should include the history of these changes
 - Establish champions of the changes in the next generation of leadership
- Be prepared for future changes
 - DNA mixture tools will continue to evolve and efforts need to continue to ensure community-wide standards

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Ouestions??

