IHS, Pediatrics, & the Pandemic Part III
2021—First Six (6) Months
Presented By…

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Pediatrics
Pediatric Infectious Disease
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Key Points & Objectives

• COVID-19 Strategies and Actions for 2021 and Beyond

• Prevention Strategies
  • Triad
    • Distance-Time-Numbers
  • Handwashing & Masks
  • Vaccines

• Leveraging Tools & Technology
  • Data = > Monitor Performance
2020 Calendar Year Ends

**United States**

- >20 M Infections
- >346,000 Deaths

**Globally**

- >83.8 M Infections
- 1.8 M Deaths
2020 Calendar Year Ends
2021 Begins

• Despite Numbers === > Hope and even Optimism
• 2020 Pandemic across USA 340 M without VACCINE
• VACCINES = NEW & BEST TOOL to Impact Pandemic
Vaccine Data "SAFETY FIRST"

• Maurice Hilleman, the father of modern vaccines said …
  “I never breathe a sigh of relief until the first 3 million doses are out there.”

• By the end of 2020 --- DONE! > 3 M Administered
COVID-19 Strategies = ANY Contagious Disease

Multiple Layers Improve Success

The Swiss Cheese Respiratory Pandemic Defense recognizes that no single intervention is perfect at preventing the spread of the coronavirus. Each intervention (layer) has holes.

Personal responsibilities
- Physical distance, stay home if sick
- Hand hygiene, cough etiquette
- If crowded, limit your time

Shared responsibilities
- Ventilation, outdoor, air filtration
- Quarantine and isolation
- Fast and sensitive testing and tracing
- Government messaging and financial support
- Vaccines

Source: Adapted from Ian M. Mackay (virologydownunder.com) and James T. Reason, Illustration by Rose Wong
2021 Calendar (con’t)

DEMAND >>>>> SUPPLY

PHASE 1
- Healthcare Workers
- Essential Workers
- People at High Risk of Disease/Death
- = Elderly 75+

Quick & Easy
Local View
- IMM VAC
- QMAN
2021 Calendar

January

- 3 M Vaccinated

February

- 2 VACCINES
  - Pfizer & Moderna
  - BOTH
    - mRNA
    - 2 doses
    - EUA
    - tested on 1,000’s
    - SAFE
    - EFFECTIVE >90%

March

- Federal Vaccine
  - No Cost to patient
  - "VFC-like"

- Admin cost
  - Covered by insurance or Feds CAF

29.5 M Dose #1
RPMS Data Tools
RPMS = “Really Powerful at Measuring Stuff”

**IMM VAR**
- Super Quick & Easy
- Choose Dates
- January 1 – 31
- Lot # detail
- Ages are “set”

**QMAN**
- Quick & Not Hard
- Look at
  - “User Pop”
  - COVID Vaccine
  - Estimate Vaccine Rate
  - Flexible Age Ranges (8)

<table>
<thead>
<tr>
<th>Pre-Set Ages</th>
<th>&lt;1</th>
<th>1</th>
<th>2</th>
<th>3 - 5</th>
<th>6</th>
<th>7 - 10</th>
<th>11 - 12</th>
<th>13 - 18</th>
<th>19-24</th>
<th>25 - 44</th>
<th>45 - 64</th>
<th>65+</th>
</tr>
</thead>
</table>
IMM Vaccine Accountability Report
Lots of Options – Timeframe, Vaccine, Lot#

<table>
<thead>
<tr>
<th>January 1 - June 30 VAR (including Hx)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL Vaccine</td>
<td>TOTAL COVID</td>
<td>COVID %</td>
</tr>
<tr>
<td>19,244</td>
<td>14,922</td>
<td>78%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Janssen - all lots</th>
<th>Janssen - no lot #</th>
<th>Moderna - all lots</th>
<th>Moderna - no lot #</th>
<th>Pfizer - all lots</th>
<th>Pfizer - no lot #</th>
<th>NOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>367</td>
<td>15</td>
<td>13,957</td>
<td>371</td>
<td>596</td>
<td>44</td>
<td>2</td>
</tr>
</tbody>
</table>
2021 VAR Week-by-Week Vaccination

![Graph showing weekly COVID and vaccine data from 2021]
### QMAN “Rates” ==> 6 Month Cumulative Activity

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Patients AIAN (GPRA Communities)</th>
<th>Complete</th>
<th>% Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-19</td>
<td>1169</td>
<td>482</td>
<td>41%</td>
</tr>
<tr>
<td>20-29</td>
<td>2476</td>
<td>954</td>
<td>39%</td>
</tr>
<tr>
<td>30-39</td>
<td>2490</td>
<td>1183</td>
<td>48%</td>
</tr>
<tr>
<td>40-49</td>
<td>1589</td>
<td>898</td>
<td>57%</td>
</tr>
<tr>
<td>50-59</td>
<td>1552</td>
<td>1151</td>
<td>74%</td>
</tr>
<tr>
<td>60-64</td>
<td>663</td>
<td>478</td>
<td>72%</td>
</tr>
<tr>
<td>65-74</td>
<td>824</td>
<td>644</td>
<td>78%</td>
</tr>
<tr>
<td>75 and older</td>
<td>324</td>
<td>262</td>
<td>81%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11087</strong></td>
<td><strong>6052</strong></td>
<td><strong>55%</strong></td>
</tr>
</tbody>
</table>
QMAN—Current by Age Group (6 Months of Activity)

% Fully Vaccinated

- 16-19: 41%
- 20-29: 39%
- 30-39: 48%
- 40-49: 57%
- 50-59: 74%
- 60-64: 72%
- 65-74: 78%
- 75 and older: 81%

55% Average
Daily New Confirmed COVID-19 Deaths

![Graph showing daily new confirmed COVID-19 deaths per million people. The graph indicates a trend with peaks and troughs, and a question mark indicating uncertainty or a point of interest.](image-url)
2021 – Vaccinations > 345 Million (6/2021)
2021 Calendar (1)

January Covid Vaccines VAR Age Groups

- **January**
  - Health Care Staff
  - High Risk Pts

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Jan 3 – 9</th>
<th>Jan 10 – 16</th>
<th>Jan 17 – 22</th>
<th>Jan 24-30</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-18</td>
<td>140</td>
<td>138</td>
<td>299</td>
<td>148</td>
</tr>
<tr>
<td>19-24</td>
<td>255</td>
<td>83</td>
<td>464</td>
<td>101</td>
</tr>
<tr>
<td>25-44</td>
<td>293</td>
<td>137</td>
<td>293</td>
<td>17</td>
</tr>
<tr>
<td>45-64</td>
<td>204</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65+</td>
<td>414</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>994</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **January**
- **February**
- **March**
2021 Calendar (2)

January  February  March

65+ yo COVID Vaccines (Total 548) by week in January

- Jan 3 -- 9: 101
- Jan 10 -- 16: 137
- Jan 17 -- 22: 17
- Jan 24-30: 293
2021 Calendar (3)

January  February  March

Feb COVID VAX by Age Groups

Health Care Staff and 55-64

High Risk Pts

1015

960

946

19
2021 Calendar (4)

January  February  March

65+ yo COVID Vaccines (Total 1,004)
by week in February

Jan 31 - Feb 6  |  Feb 7 -- 13  |  Feb 14 -- 20  |  Feb 21 -- 27

382  |  310  |  93  |  219
2021 Calendar (5)

January  February  March

March COVID Vax by Age Groups

55-64 & Even younger

High Risk Pts

1081 1115 1098

TOTAL

13-18 19-24 25-44 45-64 65+
2021 Calendar (6)

January ➡️ February ➡️ March

65+ yo COVID Vaccines (Total 680) by week in March

- February 28 - March 6: 240
- March 6 - March 13: 234
- March 14 - March 20: 101
- March 21 - March 27: 105
Pediatric Hospitalizations and Death in US from COVID vs. Selected Viral Illness’, Prevaccination

<table>
<thead>
<tr>
<th>Virus</th>
<th>Hospitalizations (per 100,000)</th>
<th>Death per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID</td>
<td>22 (0-17 yrs old)</td>
<td>322 (as of May 27, 2021)</td>
</tr>
<tr>
<td>Influenza</td>
<td>34-92 (&lt;4 yrs old) 20-41 (5-17 yrs old)</td>
<td>110-192 (2016-2020)</td>
</tr>
<tr>
<td>Varicella</td>
<td>4-13 (0-20 yrs old)</td>
<td>50 (1970-1994)</td>
</tr>
<tr>
<td>Rotavirus</td>
<td>1500 (≤ 5 yrs old)</td>
<td>20-60 (1999-2007)</td>
</tr>
<tr>
<td>Rubella</td>
<td>Not available</td>
<td>17 (1966-1968)</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>&lt;1 (0-15 yrs old)</td>
<td>3 (1990-1995)</td>
</tr>
</tbody>
</table>

Think about it.

Not only was COVID a leading cause of death in pediatrics in 2020, it is killing many more kids than most other vaccine preventable diseases!
FDA request Pfizer/Moderna ==> MORE Pediatric Clinical Trials

- Pfizer 5–11-year-olds
  - September Results (Anticipate) from Current Trial
  - November ==> Approved/Eligible??

- Moderna
  - Trial Enrollment numbers NOT YET finalized
Children and COVID-19

2020 ==> A Year Ago
3% of the U.S. Total

2021 ==> Now AAP reports
22.4% (71,649 out of 319,601)
Old Age & Children

• FACT: Old age ==> Key Risk Factor for COVID-19 Death
  • Death is not the only outcome of infection worth avoiding!

• Children <<<< less likely to die

• Infection/Disease Risks
  • Classic COVID
  • Long COVID
  • Multisystem Inflammatory Syndrome
  • Myocarditis

• < 12 are not yet eligible to be vaccinated = 100% at Risk
  • Depend completely upon older people for protection
COVID-19 Testing & Vaccines

COVID Testing 19,000 Athletes
3,018 had COVID
(16% == > 1 in 6)
Cardiac involvement
21 (0.7%)
Small Number – right? < 1%

==> 7,000 per 1 M Cases

Per 1 M COVID Vaccines

<table>
<thead>
<tr>
<th>Age</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>12–17</td>
<td>67</td>
<td>9</td>
</tr>
<tr>
<td>18–24</td>
<td>56</td>
<td>6</td>
</tr>
<tr>
<td>25–29</td>
<td>20</td>
<td>3</td>
</tr>
</tbody>
</table>
COVID-19 Infections & Vaccines
Children – Teenagers – Adolescents – Young Adults

• COVID-19 Infections - Children & Teenagers
  • Hospitalization > 10%
  • ICU 3%
    • Journal of the American Medical Association.

• Vaccination === > Adolescents & Young Adults
  • Best Way to turn the corner for CHILDREN < 12
    • Dr. Jim Versalovic, Chief Pediatrician, Texas Children's Hospital
To Be Continued…
2021 Still a Long Way to Go

• Requests for Your Help – YOU have Frontline Knowledge & Experience
• Nationally IHS is looking at solutions/leveraging Technology to Help You
• How can IT help you?
• IMM – iCare – QMAN tools are powerful
• Take time & effort --- experience helps do faster & better, still . . .
• Focus on use of 21st century technology to show you “Immtelligence”
• What Report(s) would you like to see?
  
  == > How Often?  
  == > Other Ideas?
Questions & Discussions