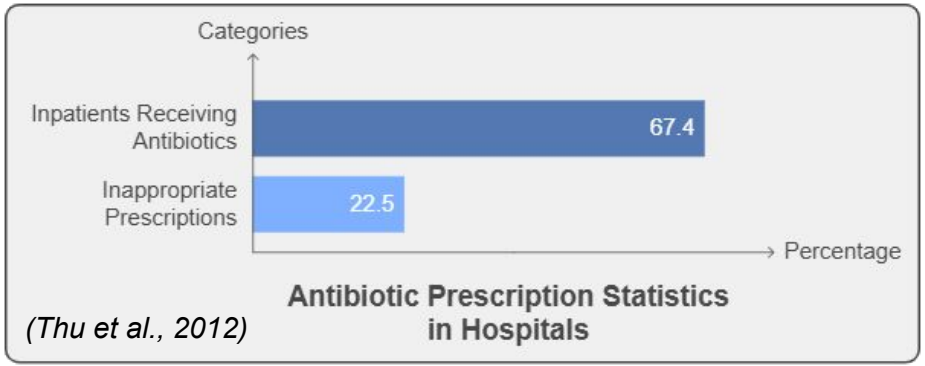
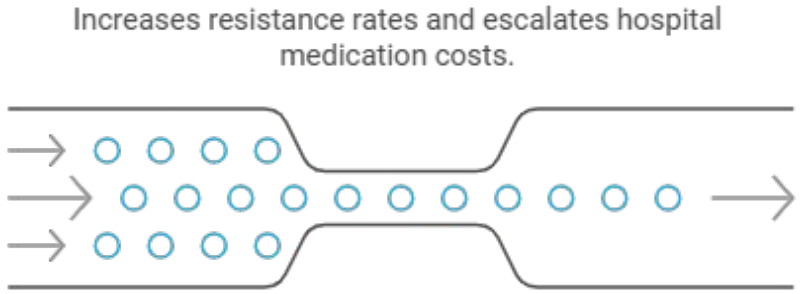
# Vietnam Antibiotic Resistance Resilience (VARR) Initiative

We are ***Group 9***, and we are committed to working hand-in-hand with the Ministry of Health (MOH) to tackle the issue of **Antibiotic Resistance** in Vietnam, aligning with UN SDG 3: "Good Health and Well-being", Target 3.3: Communicable diseases.




*(Thu et al., 2012)*


*(United Nations, 2015)*




*(K. Nguyen et al., 2013; Dat et al., 2020)*

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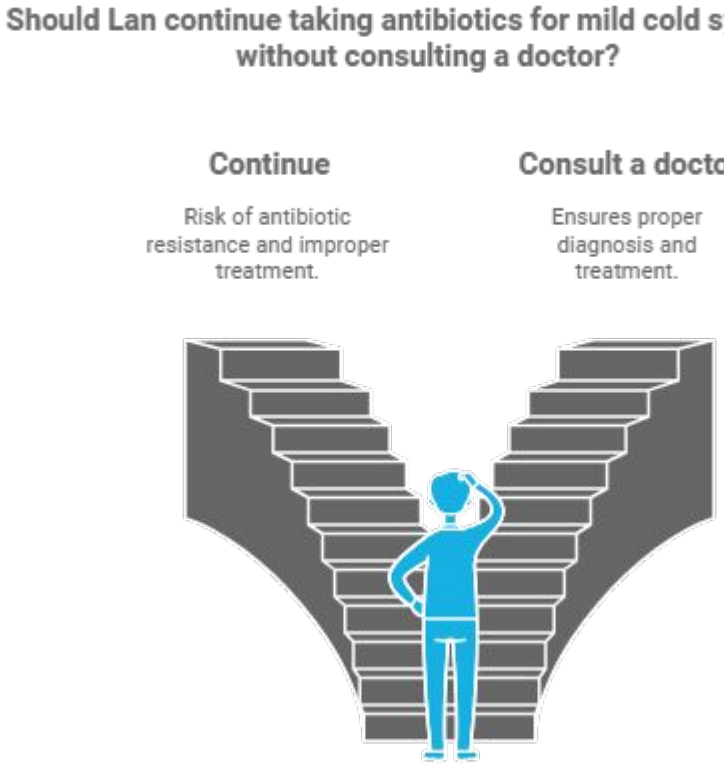


– *Lan* is *a 17-year-old student in Vietnam who frequently takes antibiotics whenever she has mild cold symptoms, without consulting a doctor.*

– She has **no proper knowledge of antibiotic use** and might face a high risk of suffering from antibiotic resistance in the future, which could have detrimental consequences (pain). This is due to influence from her parents' misperceptions about antibiotics, as they buy them for convenience rather than seeking medical advice (causes of pain).

– Consequently, this misuse of antibiotics contributes to rising antibiotic resistance, endangering long-term health and treatment effectiveness (consequences of pain).

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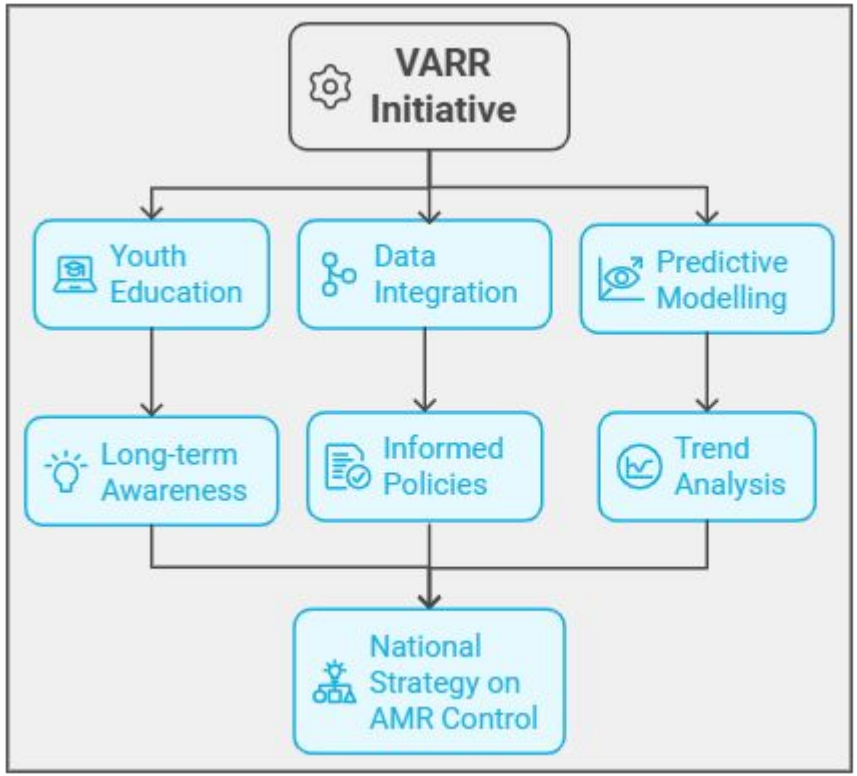


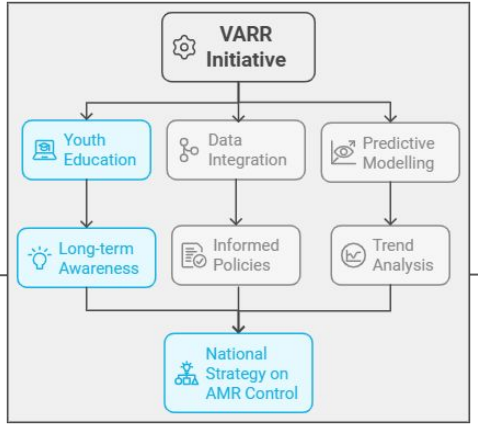

Our solution is **Vietnam Antibiotic Resistance Resilience (VARR) Initiative**.

This initiative strengthens Decision 1121/QĐ-TTg for sustainable AMR control through youth education, data integration and predictive modelling (Vietnamese Law, 2023).

# Solution 1 | Youth Antibiotic Education and Health Monitoring

**Objective:** Promote responsible antibiotic use among youth by integrating health data into school programs for personalized feedback

**Data Utilisation:** Personalised feedbacks, students demographics
**Benefits:** Increased responsible antibiotic use




**Alignment**
**MOH Goals:**

- Equip youth with antibiotic knowledge and responsible behaviors

**User Impact:**

- Be aware of responsible antibiotic practices

**People and Management**

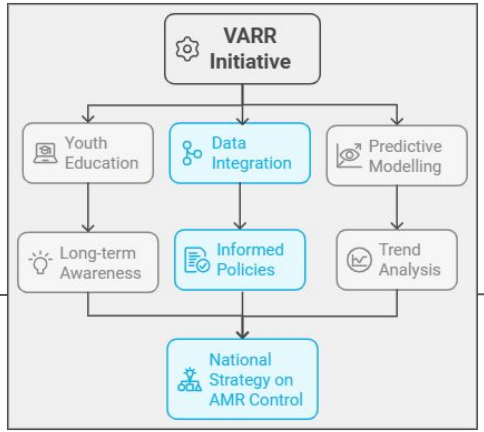
1. **Ministry of Health & Education Partnership:** Deliver tailored health feedback

2. **Educational Reports:** Schools share trends on national health data, guiding student behaviors

# Solution 2 I Nationwide Healthcare Data Integration

**Objective:** Centralize patient data to enable MOH's evidence-based AMR policy development

**Data Utilisation:** E-prescription - the key link between hospitals, clinics, and pharmacies to national system
**Benefits:** Effective monitoring of AMR, data-informed policy decisions




**Alignment**
**MOH:** Data-driven AMR policy and monitoring

**Youth:**
- Shift to prescription-based antibiotic use

**Pharmacies:**
- Recognition for prescription-only compliance

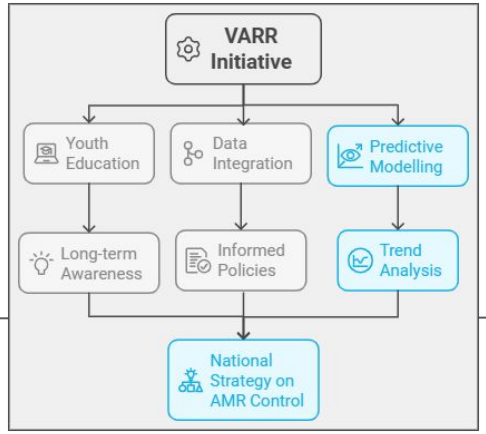
**People and Management**

1. **Healthcare professionals:** guide to dispense antibiotics only with verified e-prescriptions
2. **Technical team:** maintaining secure, scalable systems for AMR control

# Solution 3 I Predictive Analytics for AMR

**Objective:** Utilise predictive analytics for antibiotic treatment optimization
**Data Utilisation:** Patient demographics, medical records, infection data
**Benefits:**

- Early outbreak warnings
- Precision in treatment
- Cost efficiency in resource-limited settings




**Alignment**
**MOH Goals:**

- Supported targeted treatment, proactive resistance management

**User Impact:**

- Build trust in healthcare professionals over informal advice (families, pharmacists)
- Encourage compliance with data-informed treatment plans

**People and Management**
**Collaborative Efforts**:

- Cross-functional support (MOH, pharmacies, patients).
- Data quality and stability

**Global Collaboration**:

- Contribution to the UN for shared model development to combat antibiotic resistance.

# Reference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